Appendix M

Comments and Responses to Comments

Table of Contents

Introduction ……. M-1

List of Commenters …….. M-2

Applicant's Comments ……. M-7

Responses to Applicant's Comments ……. M-25

Government Agencies' Comments ……. M-33

Responses to Government Agencies' Comments ……... M-179

Organizations' Comments ……. M-235

Responses to Organizations' Comments …….. M-873

Individuals' Comments ……. M-980

Responses to Individuals' Comments ……. M-1213

Previous Draft EIR Comments and Responses ……. M-1313

Appendix M contains both the comments received on the Whittier Project Public Draft EIR and the responses to comments.

This document is divided into five sections containing the comprehensive set of comments for each section immediately followed by the comprehensive set of responses for each section.

The five sections are organized as follows:

1. Applicant's comments and responses to comments
2. Government agencies' comments and responses to comments
3. Organizations' comments and responses to comments
4. Individuals' comments and responses to comments
5. Previous draft EIR comments and responses to comments

Note that if a comment referenced a comment or set of comments from the previous draft EIR and that set of old comments was included as an attachment, then responses to those old comments are provided in section five of this document. However, if a comment referenced a comment in the previous draft EIR and the old comment was not provided, then a response was not provided.

Appendix M

List of Commenters

Whittier Main Oil Field Development Project
Revised Environmental Impact Report
Public Draft Comments
List of Commenters

Comment Set #	Name	Date	Code
Applicant			
1.	Matrix (Kelly Lytton William – Donna Black)	July 20, 2011	Matrix
Government Agencies, Elected Officials			
2.	California Department of Fish and Game (Edmund Pert)	July 20, 2011	CDFG2
3.	County of Los Angeles Fire Department (John R. Todd)	July 22, 2011	CLAFD
4.	County of Los Angeles Public Health Bureau of Toxicology &Environmental Assessment (Cyrus Rangan)	July 18, 2011	CLAPHBTEA
5.	County of Los Angeles Public Health Solid Waste Management Program (Gerry Villalobos)	July 18, 2011	CLAPHSWMP
6.	City of La Habra	June 28, 2011	CLH
7.	County Sanitation Districts of Los Angeles	July 20, 2011	CSDLAC
8.	Department of Conservation Division of Oil, Gas and Geothermal Resources (Anneliese Anderle)	July 21, 2011	DOGGR
9.	Department of Resources Recycling and Recovery (Martin Perez)	July 21, 2011	DRRR
10.	Los Angeles County Regional Park and Open Space District (Russ Guiney)	July 21, 2011	LACRPOSD
11.	Native American Heritage Commission	June 14, 2011	NAHC
12.	Puente Hills Landfill Native Habitat Preservation Authority (Andrea Gullo)	July 14, 2011	PHLNHPA
13.	South Coast Air Quality Management District	July 21, 2011	SCAQMD
Organizations			
14.	David Magney Environmental Consulting (David Magney & David Brown)	November 5, 2010	DMEC
15.	Friendly Hills Property Owners Association (Randall Martinez)	July 22, 2011	FHPOA
16.	Gabrieleno Band of Mission Indians (Andrew Salas)	July 18, 2011	GBMI
17.	Gabrielino Indians (Andy Salas)	June 11, 2011	GI
18.	Hills for Everyone (Shute,	July 21, 2011	HFE2

Comment Set #	Name	Date	Code
	Mihaly & Weinberger – Gabriel Ross and Carmen J. Borg)		
19.	Hacienda Heights Improvement Association (John M. Eckman)	July 18, 2011	HHIA
20.	Open Space Legal Defense Fund (Claremont Land Group, Geralyn L. Skapik)	June 10, 2011	OSLDF2
21.	San Gabriel & Lower Los Angeles Rivers and Mountains Conservancy	July 21, 2011	RMC
22.	Sierra Club Angeles Chapter	July 20, 2011	SCAC
23.	Untied Women of Whittier	July 20, 2011	UWW
24.	Whittier Area Audobon (Joan Powell)	July 21, 2011	WAA
25.	The Whittier Conservancy (Mary Gorman-Suliens)	July 21, 2011	WC
26.	Whittier Hills Oil Watch (Roy McKee & Peter J. Fischer, Ph.D.)	July 21, 2011	WHOW2
27.	Wildlife Corridor Conservation Authority	July 20, 2011	WCCA
Individuals			
28.	Elise Abrego	July 21, 2011	AbregoE
29.	Daniel Aldama	July 21, 2011	AldamaD
30.	Patricia and Raul Almada	July 20, 2011	AlmadaPR
31.	Lonny Anthony	July 11, 2011	AnthonyL
32.	James Arehart	June 20, 2011	ArehartJ
33.	Marilyn Avila	July 11, 2011	AvilaM
34.	David Ayala	July 20, 2011	AyalaD
35.	Jesse Ayala	July 19, 2011	AyalaJ
36.	Raymond Ayala	July 20, 2011	AyalaR
37.	Ben and Cynthia Baeder	July 21, 2011	BaederB
38.	Mary Ellen Basulto	July 21, 2011	BasultoME
39.	Shannon Bonner		BonnerS
40.	Marta Borbon	July 17, 2011	BorbonM
41.	Lori Breitman	July 21, 2011	BreitmanL
42.	Jeff Buchholz	July 21, 2011	BuchJ
43.	Brad Campbell	July 21, 2011	CampbellB
44.	Irma Cardenas-Ayala & Carlos Ayala	July 21, 2011	CardenasI
45.	Marc Casado	July 11, 2011	CasadoM
46.	Diane Cassidy	July 11, 2011	CassidyD
47.	HP Chin	July 13, 2011	ChinH
48.	Bill Daniels	June 27, 2011	DanielsB
49.	Martha Davila	July 21, 2011	DavilaM
50.	David Cowardin & Gina Natoli	July 21, 2011	DC&GN
51.	David Dickerson	July 21, 2011	DickersonD
52.	Daniel and Alecia Duran	July 21, 2011	DuranD
53.	Daniel Duran	July 11, 2011	DuranD
54.	Margot Eiser	July 20, 2011	EiserM
55.	Janet Fattahi	July 11, 2011	FattahiJ

Comment Set #	Name	Date	Code
56.	Faith Fischer	July 11, 2011	FischerF
57.	Peter Fischer	July 11, 2011	FischerP
58.	James Flournoy	July 11, 2011	FlournoyJ
59.	Lori Frear	July 20, 2011	FrearL
60.	Fuchsia191	July 19, 2011	Fuchsia191
61.	Jamie Garcia	July 20, 2011	GarciaJ
62.	Robby Gardner	July 19, 2011	GardnerR
63.	Rebekah Gilbert	July 11, 2011	GilbertR
64.	Emma Gotthardt	July 19, 2011	GotthardtE
65.	Lawrence Gotthardt	July 19, 2011	GotthardtL
66.	Diana Gruber	July 21, 2011	GruberD
67.	Sandi Gutierrez	July 20, 2011	GutierrezS
68.	Olivia Hamud	July 21, 2011	HamudO
69.	Tamara Hardy	July 21, 2011	HardyT
70.	Alexandra Heinemann	July 19, 2011	HeinemannA
71.	Mary Helfrey	July 20, 2011	HelfreyM
72.	Larry and Mary Holt	July 21, 2011	HoltLM
73.	GS Hurtado	July 19, 2011	HurtadoGS
74.	Ronald Johnson	July 18, 2011	JohnsonR
75.	Gary D. Jones	July 19, 2011	JonesG
76.	Katherine Jones	July 19, 2011	JonesK
77.	John Joyce	July 21, 2011	JoyceJ
78.	Harvey and Julie Kahn	July 11, 2011	KahnHJ
79.	Lorry Kennedy	July 21, 2011	KennedyL
80.	Malan and Alicia Lai	July 21, 2011	LaiMA
81.	Bruce LaMarche		LaMarcheB
82.	Peggy Luna	July 20, 2011	LunaP
83.	Anthony Martinez	July 21, 2011	MartinezA
84.	Steve Mather	July 21, 2011	MatherS
85.	Alfred Mayerski	July 20, 2011	MayerskiA
86.	Teresa Molina	July 21, 2011	MolinaT
87.	Gus Montano	July 21, 2011	MontanoG
88.	Jon Myers	July 11, 2011	MyersJ
89.	Jon Myers	July 21, 2011	MyersJ
90.	Shelly Myers	July 11, 2011	MyersS
91.	Grace and Yoshio Nakamura		NakamuraGY
92.	Theresa Oliver	July 21, 2011	OliverT
93.	pamandcats@aol.com	July 21, 2011	Pamandcats
94.	Joe Papaian	July 11, 2011	PapaianJ
95.	Jack Perez	July 20, 2011	PerezJ
96.	George Poochigian	July 20, 2011	PoochigianG
97.	Laura Prelesnik		PrelesnikL
98.	Norma Williamson	July 11, 2011	PHWilliamsonN
99.	Katherine Jones	July 11, 2011	PHJonesK
100.	Janet Fattahi	July 11, 2011	PHFattahiJ
101.	Abi Fattahi	July 11, 2011	PHFattahiA
102.	Steve Mather	July 11, 2011	PHMatherS
103.	Lorry Kennedy	July 11, 2011	PHKennedyL
104.	Daniel Casado	July 11, 2011	PHCasadoD
105.	Laura Prelesnik	July 11, 2011	PHPrelesnikL
106.	Marta Borbon	July 11, 2011	PHBorbonM

Comment Set #	Name	Date	Code
107.	Roy McKee	July 11, 2011	PHMcKeeR
108.	Alan Williamson	July 11, 2011	PHWilliamsonA
109.	Peter Fischer	July 11, 2011	PHFischerP
110.	Faith Fischer	July 11, 2011	PHFischerF
111.	Yoshio Nakamura	July 11, 2011	PHNakamuraY
112.	Grace Nakamura	July 11, 2011	PHNakamuraG
113.	Patricia Yoshihara	July 11, 2011	PHYoshiharaP
114.	Alfonso Garcia	July 11, 2011	PHGarciaA
115.	Lorena Munoz	July 11, 2011	PHMunozL
116.	Toni Donovan	July 11, 2011	PHDonovanT
117.	Frank Ramos Jr.	July 11, 2011	RamosF
118.	Maggie Ramos	July 11, 2011	RamosM
119.	Sherilynn Dee Reyes	July 11, 2011	ReyesS
120.	Francine Santoianni	July 20, 2011	SantoianniF
121.	Monica Sena	July 11, 2011	SenaM
122.	Mr. & Mrs. William Thompson	July 20, 2011	ThompsonW
123.	Jennifer Tucker	July 20, 2011	TuckerJ
124.	Erwin Ulbrich Jr.	July 20, 2011	UlbrichE
125.	Paula Vannucci	July 15m 2011	VannucciP
126.	Cynthia Velazquez	July 18, 2011	VelazquezC
127.	Richard Veyna	July 18, 2011	VeynaR
128.	Moyra Weide	July 21, 2011	WeideM
129.	Teri Wilkinson	July 11, 2011	WilkinsonT
130.	Dr. Clyde Williams	July 11, 2011	WilliamsC
131.	Dr. C.T. Williams	July 26, 2011	WilliamsCT
132.	Tom Williams	July 21, 2011	WilliamsT

Appendix M

Applicant's Comments

KELLY LYTTON & WILLIAMS LLP
LAWYERS
1801 CENTURY PARK EAST
SUITE 1450
LOS ANGELES, CALIFORNIA 90067
TELEPHONE (310) 277-5333
FACSIMILE (310) 277-5953
www.klwpartners.com

BRUCE P. VANN
(1955-2004)

TIMOTHY P. FURLONG
(1946-1988)

July 20, 2011

VIA EMAIL AND U.S. MAIL
Jeffery S. Adams
Planning Services Manager
City of Whittier
13230 Penn Street
Whittier, CA 90602

RE: Whittier Main Oil Field
Development Project Revised
Draft EIR

Dear Mr. Adams:

We represent Matrix Oil Corporation ("Matrix") and this letter provides our preliminary comments on the Revised Draft Environmental Impact Report ("Revised DEIR") for the Whittier Main Oil Field Development Project (the "Project") dated June 2011. The proposed Project would involve drilling wells and producing oil and gas from approximately seven acres out of 1290 acres of property owned by the City of Whittier (the "City") and included in the Puente Hills Landfill Native Habitat Preserve (the "Preserve"). The proposed site is part of a former active oil field, known as the Whittier Main Field, which produced oil for more than 100 years, until the early 1990's, from approximately 550 wells. In 2008, the City awarded Matrix a lease that could permit resumption of oil and natural gas extraction from this field.

In April 2009, Matrix submitted an application to the City for a Conditional Use Permit ("CUP") to explore, drill and produce the remaining recoverable oil and gas reserves from the Whittier Main Field. In October 2010, a Draft EIR was released which analyzed three separate locations, known as the Central, West and East sites, as the Project. However, the Draft EIR recommended an alternative known as the Consolidated Central Site and an alternate access road as key components of the Environmentally Superior Alternative. Subsequently, in April 2011, Matrix amended its CUP application to modify the Project to conform to the Environmentally Superior Alternative identified in the October 2010 Draft EIR.[1]

[1] The only aspect of the Environmentally Superior Alternative that Matrix has not adopted is the Lambert Road Railway Right-of-Way pipeline route alternative, due to leasing and permitting difficulties with this alternative. Matrix consultants have carefully reviewed this

In so doing, Matrix lowered the height of the drill rig 45 feet by lowering the site elevation;[2] consolidated the well pads to substantially reduce the impact area; moved the gas processing plant toward the interior of the Project site, 600 feet farther from the school and residences; reduced the site from two levels to one, thus making it easier to shield the facilities and reduce noise and visual impacts; and adopted the Draft EIR's recommendation to utilize the existing North Access Road, rather than construct a new road. More recently, Matrix has determined a means to substantially reduce truck trips by reusing most of the excavated soil on site to create berms which will also reduce noise and visual impacts.[3] This Revised DEIR clarifies the description of the Project and fully augments the prior discussion of the Consolidated Central Site.

1. <u>The Project's Significant and Unavoidable Adverse Impacts Are Substantially Reduced In The Revised DEIR</u>

As a result of Matrix's decision to utilize the Consolidated Central Site and the North Access Road as the Project, the Project's Significant and Unavoidable adverse impacts are substantially reduced. Although Table ES-1 on page ES-16 of the Revised DEIR lists six such impacts, the number of genuine and non-duplicative Significant and Unavoidable impacts has shrunk to very few. According to Table ES-1, three of the six alleged impacts, to Aesthetics, Land Use and Recreation, relate to the same factor (viewing the top of the drill rig), one is temporary (impact of dust on Air Quality during construction only) and the other two are speculative (greenhouse gas emissions would "likely" be above SCAQMD air quality thresholds, and a rupture/leak of a crude oil pipeline "could occur" and affect Hydrology). Given the potential benefits of the Project, including providing the Habitat Authority with over $100,000 annually and the City with as much as $1 billion in royalties over the life of the Project, there is very little in the amended CUP to which to reasonably object. Matrix-1

2. <u>The Revised DEIR Contains Minor Errors and Inconsistencies</u>

Matrix commends the City for investing the time and effort to produce a much better organized and more informative document than the original Draft EIR. However, the Revised DEIR still contains minor errors and inconsistencies, as set forth below.

---

option and concluded that it is not feasible. Accordingly, Matrix would not accept it as a condition of Project approval.

[2] Because the height of the drill rig in the Draft EIR was incorrectly stated as 151 feet, rather than 125 feet, and because the portion of the site containing the drill rig has been substantially lowered, the elevation of the top of the drill rig has been reduced a total of 71 feet (or approximately seven stories) from the description previously given in the Draft EIR.

[3] Creation of the berms will be included in a Mitigation Plan to be submitted for review and approval by the City.

a. Executive Summary

- ES-4, para. 3: The description of what size vehicles can access the Project site through Catalina Avenue, as contrasted with those which must use the Penn Street entrance and North Access Road, is inconsistent throughout the document. To simplify, we propose that these vehicles be categorized solely by the number of axles and whether or not they are pulling a large trailer, rather than by a tonnage limit. For suggested language, please see page 5, 1st bullet point. Matrix-2

- ES-5, para. 2: The second sentence should be modified (by adding the underlined phrase) to read "The first phase...would involve drilling up to three test wells..." Matrix-3

- ES-6, Figure ES-2: KEY states that temporary power poles will be used during the Testing Phase only. This is not correct. Power poles will also be utilized during the Design and Construction Phase. Matrix-4

- ES-7, para. 5: Potential mitigation measures to reduce Biological Resources impacts include scheduling construction outside of the nesting season for birds (please substitute the underlined words for "songbirds," which is incorrect). This is potentially very problematic, as construction is scheduled to take approximately two years and cannot be stopped and restarted after an extended period of time without incurring significant delay (an inconvenience for both Matrix and residents) and increased costs. Matrix proposes to initiate construction outside of the nesting season or following surveys for active nests and to maintain a consistent level of activity during construction to minimize impacts to nesting birds. Matrix-5

- ES–9, Figure ES-3: This photograph of the drill rig is misleading as it does not depict the 40 foot sound wall, extensive landscaping and potential wrapping of the rig that could further camouflage that structure. In addition, it is not clear that this is an actual view of the rig from any of the trails, despite the fact that it is captioned "Photo Simulation of Views from the Deer Loop Trail." Matrix-6

- ES–11, para. 6: The statement that "Impacts to recreation...include a reduction in planning efforts to protect recreation resources...." is misleading and unclear. With the significant additional funds that the Habitat Authority will receive from the proposed Project, staff Matrix-7

could be expanded to engage in greater planning efforts to protect resources.

- ES-19, para. 1: The section discussing the potential Lambert Road Railway Right-of-Way alternative should mention that there are significant leasing and permitting concerns with this alternative. Matrix-8

b. Introduction

- INTRO 1-4, para. 5: Should specify that the US Fish and Wildlife Service may issue Take Permits under Section 7 or Section 10 of the Endangered Species Act. Matrix-9

- INTRO 1-5, Table 1-1: Should add Section 401 Certification to the Regional Water Quality Control Board row; add Section 10 to the US Fish and Wildlife row; and remove the reference to the Army Corps of Engineers Activity in a Waterway Permit under Section 10. Matrix-10

c. Project Description

- PD 2-14, Figure 2-6: KEY states that temporary power poles will be used during the Testing Phase only. As noted above, power poles will also be utilized during the Design and Construction Phase. Matrix-11

- PD 2-15, Figure 2-7: Incorrectly shows moving the existing road to the south. This is not accurate. The existing road will remain in its current location. Matrix-12

- PD 2-18, Table 2-3 note 4: The third sentence should read: "...associated with construction of temporarily disturbed areas." Matrix-13

- PD 2-19, Table 2-4: Some of the distances from the proposed Project components to sensitive receptors are not accurate. The correct distances are as follows: Matrix-14

Well Pad to Ocean View	- 1220'
Well Pad to School Building	- 1670'
Well Pad to School Playground	- 1250'
Well Pad to SLD Residence	- 1800'
Well Pad to Public Trails	- 750'
Gas Plant to Ocean View	- 1500'
Gas Plant to School Building	- 2050'
Gas Plant to School Playground	- 1630'
Gas Plant to SLD Residence	- 2330'

Gas Plant to Public Trails - 1220'

The foregoing corrections, which will generally reduce impacts in a number of issue areas, should be made throughout the Revised DEIR.

- PD 2-19, Section 2.3.1: Middle of third paragraph from the bottom reads: "Vehicles with two axles under 3 tons would access the Project site through Catalina Avenue...Vehicles with more than two axles or over 3 tons, or vehicles towing trailers, would use the Penn Street entrance..." This conflicts with PD 2-25, Section 2.3.3.1 that states "All vehicles with two axles and without trailers would use the Catalina Avenue entrance." Nominal tonnage rating of vehicles is an art and not a science. It is not practical to differentiate between a two axle three ton and a two axle five ton vehicle. The intent is to have large vehicles use the Penn Street entrance and smaller vehicles use Catalina. (Also, a small trailer towed by a small truck, such as used by gardeners, should not be required to use the longer Penn Street entrance route.) Both of these quoted statements should be revised to read "All vehicles with two axles including those pulling a single axle trailer would use the Catalina Avenue entrance. All others would use the Penn Street (or North Access Road) entrance, <u>following improvement of the North Access Road</u>." Matrix-15

- PD 2-19, para.2: Delete the third sentence of that paragraph. Matrix has agreed not to construct a natural gas pipeline to the landfill. Matrix-16

- PD 2-20, top of page: States that "Approximately 15,000 cubic feet of cut and fill would be moved." This conflicts with the bottom of page 2-25 which refers to "5,000 cubic yards of cut and fill." These numbers are inconsistent and both are incorrect. Matrix will move less than 2,000 cubic yards of cut and fill. Matrix-17

- PD 2-20, para.4: In the second sentence, the word "travels" should be "traffic." Also, Mar Vista does not connect to Ocean Avenue via Penn Street. Penn winds around the William Penn Park, then York Avenue connects to Mar Vista. Matrix-18

- PD 2-44, para. 2: Statement that the well-logging unit contains surface hardware such as the cementing equipment and the coil tubing unit is incorrect. These are independent units, not contained within the well-logging unit. Matrix-19

- PD 2-51, para. 4: Please note that a workover rig cannot be used to "sidetrack" a well (a drilling rig is required). Matrix-20

d. Cumulative Projects

CP 3-2, 3, Table 3-1: Although the text on p. 3-3 states that the City of Whittier has seven cumulative projects, only five are listed in Table 3-1. Matrix-21

e. Air Quality

- AQ – 4.1 - 34, Section 4.1.4.2: Remove all references to floating roof tanks. The Project does not have floating roof tanks. Also, any emissions calculations using floating roof tanks should be revised. Matrix-22

f. Biological Resources

- BIO - 4.2 - 2, list of published and unpublished geological reports: Please include results from any new or updated surveys within the Preserve, specifically for surveys in 2011 for coastal California gnatcatcher and least Bell's vireo. It is our understanding that the 2011 study showed no endangered or protected birds (the same was true of the 2008 and 2009 studies). We can only conclude that using the 2010 study, without including the 2011 study, was intended to bolster the contention that this area is a critical "core" habitat. Matrix-23

- BIO - 4.2 - 7, end of second full paragraph: States that "The Project Site is known to provide some of the best habitat in the Preserve for the bobcat." Since the Project will be located in primarily low quality or disturbed areas, it would be more appropriate to state that "the areas to the north of the Project site provide some of the best habitat..." Matrix-24

- BIO 4.2 – 29, para. 5: The last two sentences read "An incidental Take Permit authorized by CDFG under Section 2081 (b) of the California Fish and Game Code would be required where a project could result in the taking of a state-listed threatened or endangered species. The application for an incidental take permit under Section 2018 (b) requires the preparation of a conservation plan, generally as a Habitat Conservation Plan." This is incorrect. The Federal Endangered Species Act, not the California Fish and Game Code, requires preparation of a Habitat Conservation Plan, and only in support of Section 10 (not applicable for Section 7 consultations). Matrix-25

- BIO 4.2 - 40, Table 4.2.3: Includes areas of impact within 60 dBA noise contours. Recommend cross-referencing Figures 4.5-4, 4.5-5, 4.5-7, 4.5-8 and 4.5-9 and specifying whether the impact calculation was for mitigated or unmitigated noise (and for which Project phase) as a footnote in the table. Matrix-26

- BIO 4.2 - 43, Figure 4.2-9: Allegedly shows impacts from the North Access Road, but does not appear to include impacts related to hillside stabilization. If the total area of impact is not yet known, this should be included as a footnote to Table 4.2.3 and Figure 4.2-9, with a statement that actual impacts will be mitigated at the specified ratios. Matrix-27

- BIO 4.2 - 48, discussion of IMPACT # BIO.2: Impact BIO.2 is described as "The proposed Project would result in the permanent and temporary loss of 1.0 acre of mulefat scrub riparian habitat, a federally protected aquatic resource as defined by Section 404 of the Clean Water Act, and increased noise could temporarily inhibit wildlife use of preserved riparian habitat." The subsequent discussion adds: "Fuel modification would consume an additional 0.14 acres of this habitat, which is federally protected as defined by the USACE Section 404 of the Clean Water Act." Matrix-28

  Mulefat scrub habitat is not always subject to federal jurisdiction/protection pursuant to Section 404 of the Clean Water Act. It must be considered Waters of the United States or Adjacent Wetlands, as determined through a delineation of jurisdictional waters in accordance with adopted USACE procedures. The description of the habitat mapped as mulefat scrub or other riparian areas as "a federally protected aquatic resource" is unsubstantiated. Appropriate mitigation should include conducting a jurisdictional delineation to identify areas that are subject to the jurisdiction of the USACE and CDFG, which would support acquisition of permits as outlined in Mitigation Measure BIO-2b. Matrix-29

- BIO 4.2 - 53, para. 2: Text refers to "extensive and unmitigated oil operations that took place for many decades." This is not a correct statement. The historical oil operations were mitigated through Preserve management activities which have helped restore habitat and increased local wildlife populations. It is speculative to state whether local populations would have recovered without subsequent preservation and restoration activities. At the least, we recommend deleting the word "unmitigated." Matrix-30

- BIO 4.2 - 53, para. 1: The discussion of wildlife nursery sites should include a reference to nesting birds and maternal roosts of sensitive bats, and reference protective Mitigation Measures BIO 4e, 4f and 4g to minimize impacts. Matrix-31

- BIO 4.2 - 54, para. 1, 2: States that "It is expected that wildlife use of the Service Tunnel would be adversely affected by activities in the eastern portion of the Project area." However, before Mitigation Measures BIO 4h (install native screening) and BIO 4g (implementing signage above the tunnel) can be imposed, there should be some actual showing of adverse effects, particularly since there is a study referenced in the EIR showing that recreational use has not substantially impacted the Tunnel. We recommend including accurate distances from project-related activities to the Service Tunnel. Matrix-32

g. Safety, Risk of Upset and Hazardous Materials

- SR 4.3 - 66, para. 3: This entire paragraph, which begins with "The proposed pipeline that would be installed between the Processing Pad and the Savage Canyon landfill to supply gas to City properties..." should be deleted. This pipeline will not be installed. Matrix-33

h. Noise and Vibration

- N 4.5 - 28, para. at bottom of page: The first sentence erroneously refers to Table 4.5-7. The reference should be to Table 4.5-8. Matrix-34

i. Transportation and Circulation

- T 4.7 - 27, last paragraph: This paragraph, which refers to the Whittier Community Church Project, should be deleted. There are no plans to build an access road off of Colima Road. Matrix-35

j. Hydrology and Water Resources

- WR 4.8 - 11, para. 1: The first paragraph after the Impact Description table, in the second sentence, reads in part "...with 6.9 acres remaining disturbed and mostly paved during operations". This is incorrect. The sentence should read "...with 6.9 acres remaining disturbed and mostly unpaved during operations." Only roadways, equipment foundations and oil tank spill containment areas will be paved. Most of the areas will be gravel. Matrix-36

- WR 4.8 - 13, last paragraph: The fifth sentence refers to a sewer line beneath La Canada Verde Creek. Although the sewer line will be under the road, it will be above the Creek. The word "beneath" in that sentence should be replaced with "beneath the roadway but above La Canada Verde Creek." Matrix-37

k. Wastewater

- WAS 4.10 - 5, first paragraph after Impact Description table: The third sentence in this paragraph refers to "a new 4-inch cast iron sewer pipeline..." The reference to "cast iron" should be removed. Cast iron is no longer used for small diameter pipes in underground construction. The current materials of choice for sewer pipe are HDPE, ABS or PVC. The City will approve the sewer pipe material during plan check. Matrix-38

l. Other CEQA-Mandated Sections

- These sections have a generally negative tone and seem to suggest that there is not much economic benefit from the proposed Project compared to the potential "irreversible damage" the Project could cause. This is an inaccurate characterization of the Project. According to the socioeconomic study included in the Appendix to the DEIR, the Project could yield approximately $1 billion in royalties to the City over the life of the Project and is the only known source of additional and continued funding for the Preserve. This clearly represents significant economic growth to the region. Moreover, even in the highly unlikely event of an upset, the damage almost certainly would not be irreversible, as stated in the last paragraph on page 7-1. We request that this section (Section 7) be revised to present a more accurate, balanced and objective review of the proposed Project. Matrix-39

3. Some Mitigation Measures Identified in the Revised DEIR Are Unnecessary, Impracticable or Unworkable

Although Matrix fully supports mitigation of all of the proposed Project's adverse impacts, some mitigation measures identified in the Revised DEIR are unnecessary, impracticable or unworkable, and others have no relation to the Project's alleged impacts. Our remaining comments will focus on a discussion of specific mitigation measures, including the following suggestions and requests:

a. Air Quality

- Mitigation Measure AQ-2b (p. 4.1-36): The requirement for "85% effectiveness" should be replaced with "80% effectiveness" in order to be consistent with Mitigation Measure AQ-1c. Also, it would be more beneficial and appropriate to apply gravel to roads instead of soil binder. If the Project does not proceed, soil binder or pavement would have to be removed, causing greater disruption and impact. Matrix-40

- Mitigation Measure AQ-3b (p. 4.1-39): Request removal of first two sentences, while maintaining the reference to SCAQMD Rule 430. The Project design calls for all tanks to be connected together with a common vapor blanket through a common vapor recovery system. The vapor pressure will be the same for all tanks. Individual tank pressure monitors, as required by this measure, serve no purpose. Matrix-41

- Mitigation Measure AQ-5 (p. 4.1-45): This measure should be deleted. The drilling rig is portable equipment with an existing permit from the California Air Resources Board. Modifying the engines will void the existing air permits. Matrix-42

- Mitigation Measure AQ-4 (p. 4.1-23): Matrix requests modification of the requirement to plant 500 trees within the Preserve, if GHG emissions exceed the SCAQMD threshold, so that other types of cost-effective plantings acceptable to the City and in accordance with applicable SCAQMD guidelines may be substituted, if appropriate. Matrix-43

b. Biological Resources

- As a general comment, all mitigation measures in this section requiring restoration contractor approval should include a statement to the effect that "such approval shall not be unreasonably withheld." Matrix-44

- Mitigation Measure B10-1a (p. 4.2-45, 46): The phrase "or as otherwise agreed to by the appropriate resource agency and the City" is vague. Also, items in this measure that require agreement by the resource agencies and the City should include a requirement for agreement by the operator. Matrix-45

- Mitigation Measure B10-1c (p. 4.2-47): Measure requires salvage of topsoil (upper 12 inches of soil) from all areas of intact (non-weedy) native communities that are graded to later be spread over graded areas to increase native plant diversity. Request that this measure be deleted as impractical. Matrix-46

- Mitigation Measure BIO – 1d (p. 4.2-47): In the first sentence, please insert the underlined material: "the Project proponent <u>or federal Corps of Engineers</u> shall consult with the US Fish and Wildlife Service..." Also, there is a reference to the loss of five acres of coastal sage scrub, but this does not include the area of noise impact. Please quantify this and include in the measure. Matrix-47

- Mitigation Measure BIO – 2a (p. 4.2-48, 49): All references to "appropriate resource agencies (e.g., US Fish and Wildlife Service)" should be changed to "(e.g. , California Department of Fish and Game or US Army Corps of Engineers)." The US Fish and Wildlife Service will probably not be involved in riparian habitat restoration since there are no listed species affected there. Matrix-48

- Mitigation Measure BIO – 4c (p. 4.2-57): Please modify to specify that the maximum speed is <u>15 mph</u> (this is consistent with other mitigation measures included in the Mitigation Monitoring Plan) and that this reduced speed limit applies only within the Preserve. (All roads used by Matrix within the Preserve will be paved.) Please ensure that speed bumps are not included in the "traffic calming measures" referenced in this measure, as speed bumps pose a danger to heavy construction, drilling and operating equipment. Matrix-49

- Mitigation Measure BIO – 4e (p. 4.2 – 57): Please change "songbirds" to "native birds." Also, please change "shall" to "should" in the phrase "initial construction of the pad sites and facilities and annual fuel modifications involving vegetation removal/trimming shall be done outside the breeding season (February 15 through August 31)." Although Matrix will make every effort to adhere to this requirement, it cannot be guaranteed at all times. However, Matrix proposes to initiate construction outside the nesting season or following surveys for Matrix-50

active nests and to maintain a consistent level of activity during construction to minimize impacts to nesting birds.

- Mitigation Measure BIO - 4f (p. 4.2 – 58): Replace the reference to "songbirds" with "native birds." Matrix-51

- Mitigation Measure BIO – 4g (p. 4.2 – 58, 59): Incorrectly summarized as "limits and surveys to protect hawks" in the table on page 4.2-79. Please change "shall" to "should" in "Tree removal or relocation shall be scheduled between October 1 and February 28, outside of the maternity roosting season." Again, while Matrix will attempt to comply with this requirement, it cannot be guaranteed at all times. Matrix-52

- Mitigation Measure BIO – 4h (p. 4.2 – 59): This measure should be made contingent on a showing of some evidence that the Project is actually adversely affecting the Service Tunnel. This is especially warranted since the study cited in the EIR has shown that recreational use has not substantially impacted the Tunnel. Matrix-53

- Mitigation Measure BIO – 4k (p. 4.2 – 59): This requirement for a biological monitor is incorrectly characterized in the table on page 4.2-82 as "limiting access to Arroyo San Miguel trail." Matrix-54

- Mitigation Measure BIO – 4n (p. 4.2 – 60): Please delete. The Arroyo San Miguel Trail is on the east side of Colima Road. The Project will have no effect on this trail. Matrix-55

- CUMULATIVE BIO-1 (p. 4.2 – 65): The Sycamore Canyon project is located over two miles from the proposed Project. No evidence was presented that noise from the Sycamore Canyon project would be audible at the proposed Project site, thus contributing to a cumulative impact. This mitigation measure should be deleted as not reducing a significant impact and therefore not required under CEQA. Matrix-56

- CUMULATIVE BIO-2 (p. 4.2 – 66): Coordination with Tehachapi Renewal Transmission Project construction seems reasonable,

but use of watersheds to define cumulative effects may not be. Suggest using linear distance, e.g., one mile, to evaluate cumulative effects. Matrix-57

c. Safety, Risk of Upset and Hazardous Materials

- Mitigation Measure SR – 2a (p. 4.3 -68): Remove the phrase "...and the pipeline to the landfill..." The pipeline to the landfill will not be installed. Also remove the phrase "...and a backflow prevention...Colima Road pipeline." The pipeline will be constructed to CPUC and Southern California Gas Company standards. Neither Matrix nor the City has any control over what devices or valves Southern California Gas Company will install. Matrix-58

- Mitigation Measure SR-6b (p. 4.4 – 23): This measure should be clarified so that the requirement that all pipelines "be coated and placed under impressed cathodic protection..." applies only to direct buried pipe. Impressed cathodic protection is necessary only when the pipe comes into constant contact with soil and water. Matrix-59

- Mitigation Measure SR-2a (p. 4.3 -68): Please delete due to impossibility. This measure requires installation of a backflow prevention device at the tie-in location of the pipeline at Lambert Road. However, the pipeline will be owned, maintained and operated by Southern California Gas Company, which does not allow backflow prevention devices on its systems. Instead, the system will be designed to meet Southern California Gas Company standards and specifications. Matrix-60

- Mitigation Measure SR – 3 (p. 4.3 – 69): This measure should be removed. A site assessment of the Project site has already been completed. The results of that assessment are stated in Section 4.3.1.2 (p. 4.3 – 2). There have been no changes to or activities on the site since that time. Matrix-61

d. Geological Resources

- Mitigation Measure GR-1f (p. 4.4. – 19): This measure should be removed. There are no existing facilities and equipment. This measure incorrectly implies that Matrix will be using existing facilities and equipment that is already onsite for the Project. Matrix-62

- Mitigation Measure GR-1g (p. 4.4 – 19): This measure requires the operator to provide a written report of equipment and facility inspection after an earthquake that generates a ground acceleration of 15 percent of gravity. The City must approve this report prior to recommencement of operations, but there is no time limit by which the City must act on this report. Matrix requests a sentence be added requiring the City to act on the report within 5 business days, as it would be an emergency situation. Matrix-63

- Mitigation Measure GR-2 (p. 4.4 – 19, 20): This measure protects against the effects of "moderately expansive soils." However, the text directly below the GR-2 Impact Description Box states that "Onsite soils consist of interbedded sand, silt and clay, which have a very low to medium soil expansion potential." In other words, the Project site does not contain "moderately expansive soils" and, therefore, the mitigations in this measure are unnecessary. Please delete. Matrix-64

- Mitigation Measure GR-7b (p. 4.4 – 24): This measure, requiring an increase in wastewater reinjection should subsidence be detected, should be deleted. Matrix will reinject all of the wastewater produced during operations. It is impossible to increase water reinjection when all of the wastewater is already being reinjected. Matrix-65

e. Noise and Vibration

- Mitigation Measure N-4 (p. 4.5 – 42): Please delete requirement (6) for installation of a 16' sound wall on the south, west and north sides of the gas plant. The land surrounding large portions of the gas plant is designated for Fire Department access, which would be impermissibly impeded by the sound walls. Matrix-66

- Mitigation Measure N-2c (p. 4.5 – 31): Please clarify that only the City (not a sensitive receptor) has the authority to shut down operations. Matrix-67

f. Transportation and Circulation

- Mitigation Measure T-lc (p. 4.7 – 23): Please revise the language so that the "40 daily trips" is computed on an average per month basis. Matrix-68

- Mitigation Measure T-Id (p. 4.7 – 23): The last sentence should be modified to add "[n]o vehicles with more than two axles or vehicles pulling trailers with more than one axle shall be allowed on Catalina Avenue during the majority of Phase 2 and all of Phase 3" in order to ensure consistency with the overall document. (Please note that access through Catalina Avenue may be required at the beginning of Phase 2, until the North Access Road improvements are completed.) Matrix-69

- Mitigation Measure T-Id(1) (p. 4.7 – 23): Matrix will study whether the "wider turning radius" called for here is necessary in light of the remaining mitigation measures (e.g., use of flagmen) included in this section. Matrix-70

- Mitigation Measure T-If(7) (p. 4.7 – 24): This measure requires assurance that the Project will not increase traffic levels on Penn Street. This is impossible, as even one car or truck as a result of the Project would increase traffic levels. Please revise to prohibit any "substantial" increase in traffic due to the Project. It should also be noted that, since the City and not Matrix has authority to regulate truck traffic from the landfill, it is within the City's power to control traffic levels on this street. Matrix-71

- Bullet points on pp. 4.7-29, 30: These bullets refer to mitigation measures that purport to require Matrix to make an unspecified contribution to some kind of Fair Share Allocation System, but that are not listed under any of the mitigation measure summation tables or in the Mitigation Monitoring Plan. Since Matrix will already be providing the Habitat Authority with over $100,000 annually and the City with as much as $1 billion in royalties over the life of the Project, it strongly objects to any additional payments of this nature. Matrix-72

g. <u>Hydrology and Water Resources</u>

- Mitigation Measure WR-3a (p. 4.8 -16): The first sentence referring to groundwater in well cellars should be removed. As stated in the geotechnical report, no groundwater was observed in any of the well borings and historical groundwater is found more than 100 feet beneath the Project site (p. 4.8-2). The well cellars will be designed to perform the function of the stormwater detention system for the well pads. Lining the well cellars with impermeable Matrix-73

membrane will prevent stormwater from being collected in the cellars.

- Mitigation Measure WR-4c (p. 4.8 – 18): This measure, which requires installation of a leak detection system for crude oil pipelines, is excessive and unreasonable and should be modified. The last sentence of that measure reads, in part: "Flow balancing shall be conducted every 5 minutes, 1 hour, 24 hours and 48 hours..." Because gaseous fluids move through the pipeline, calculations every five minutes would not be meaningful due to compression and expansion. Please delete the requirement for flow balancing every five minutes. Matrix-74

- Mitigation Measure WR-4b (p. 4.8 – 18): Please remove the requirement for walking the pipelines "at least daily." Pipeline routes are frequently visually inspected. In addition, Matrix will install sophisticated equipment to monitor the pipelines on a 24/7 basis. Matrix-75

h. Wastewater

- Mitigation Measure WS-1 (p. 4.10 – 6): The requirement for a capacity performance test for the existing sewer line system should be deleted as excessive and unnecessary. The Project site will contain one small (30' x 80') office building with a single unisex bathroom (the Draft EIR incorrectly states that there will be two bathrooms) containing no more than 15 fixture units. Connecting 15 fixture units to an existing system serving thousands or even tens of thousands of fixture units does not warrant a system capacity analysis. Matrix-76

i. Fire Protection and Emergency Services

- Mitigation Measure FP-2a (p. 4.12 – 20): The second sentence regarding firewater monitors should be modified to read "Firewater monitors shall be provided as required by LACoFD." Water sprays reaching 30 feet beyond the facility wall are not practical. On the east side of the facility, there are retaining walls that are up to 40 feet high, with a seven-foot block wall on top. Spraying water 30 feet beyond this wall is not realistic. On the west side, there is a road adjacent to the facility. Spraying water on this road would be contrary to Fire Department procedures. Matrix-77

4. Conclusion

Matrix respectfully requests that the City approve and certify the Final EIR, with the clarifications and minor modifications set forth above. As previously discussed, Matrix's decision to adopt the Environmentally Superior Alternative (minus the Lambert Road Railway Right of Way pipeline route) substantially reduces the Project's Significant and Unavoidable adverse impacts to six, three of which are duplicative, one of which is temporary and two of which are speculative. In exchange, the Project will yield as much as $1 billion in royalties to the City and will provide the only available known long-term source of funding for the Habitat Preserve. We submit that the proposed Project is a win-win for the City and Matrix, and should be approved without further delay.

Thank you for considering the foregoing comments.

Very truly yours,

Donna R. Black

Cc: Jeffrey Collier
Kimberly Hall Barlow, Esq.
Joann Lombardo

Appendix M

Responses to Applicant's Comments

Whittier Main Oil Field Development Project
Revised Environmental Impact Report
Public Draft Comments
Applicant

Comment #	Response
Matrix-1	Comments on the impacts of the Project by the Applicant are accurate. No specific comment is made that requires a response or modifications to the EIR.
Matrix-2	Although a two-axle vehicle is easy to identify, some two-axle vehicles, such as trucks or dump trucks, can be quite large. Particularly trucks with multiple tires on the rear axle for increased loads, total vehicle weight for a two-axle truck can be as much as 20 tons with four tires on the back axle. These vehicles would exceed the 3-ton weight limit for residential areas and they would be more disruptive to area traffic circulation than smaller vehicles. The 3-ton limit, although harder to discern, ensures that vehicles traversing Mar Vista Street would not contribute to the heavily impacted traffic levels in this area. Therefore, the weight limit of 3 tons has been made consistent throughout the document.
Matrix-3	Text has been changed in the Final EIR.
Matrix-4	Figure ES-2 and 2-6 have been modified in the Final EIR to reflect the use of power poles during the testing and construction phases of the proposed Project.
Matrix-5	Mitigation measures BIO-4e and BIO-4f allow for construction during the nesting season of songbirds and raptors. However, initial impacts related to vegetation removal at the pad sites and facilities, and annual fuel modifications involving vegetation removal/trimming must be done outside the breeding season. Ongoing construction activities resulting in vegetation removal or ground disturbance would require surveys and assurances that migratory birds and their nests were not being impacted. Any considerable vegetation removal is likely to support nesting and prohibit initial plant removal. Mitigation measure BIO-4e has been modified to reflect that vegetation removal and trimming activities are subject to preclusion during the nesting season and that other construction activities can occur during the nesting season.
Matrix-6	The figure depicts the views of the facility from the Deer Loop Trail, as indicated in Section 4.6, Aesthetics and Visual Resources after removal of trees and vegetation in the area and after construction of the facilities as depicted in the Project Description. The inclusion of sound walls only affects the view minimally, as shown in Figure 4.6-14. Wrapping the drilling rig is not proposed as a mitigation measure. The addition of berms would reduce the visual impacts primarily from the trail viewing area. Berms would reduce the views of the drilling rig from the near-field location along Deer Loop Trail somewhat, but the drilling rig would still be clearly visible.
Matrix-7	The Final EIR has been changed in response to this comment.
Matrix-8	Issues related to permitting and right-of-way are already discussed in the Draft EIR in the Executive Summary and in Section 5.0, Alternatives.
Matrix-9	Text has been changed in the Final EIR.
Matrix-10	Text has been changed in the Final EIR.
Matrix-11	Figures ES-2 and 2-6 have been updated to indicate that power poles would be used during the testing and construction phases of the proposed Project.
Matrix-12	Figure 2-7 is the most recent drawing of the site received from Matrix. All of the drawings from Matrix show the road being re-aligned towards the west alongside the pad area. The west is toward the bottom of the figure in Figure 2-7.
Matrix-13	Text has been changed in the Final EIR.
Matrix-14	Distances to receptors from pad equipment have been revised and updated based on the most recent Matrix drawings submitted, equipment locations, and receptor locations.
Matrix-15	Although a two-axle vehicle is easy to identify, some two-axle vehicles, such as trucks

Comment #	Response
	or even dump trucks, can be quite large. Particularly with trucks with multiple tires on the rear axle for increased loads, total vehicle weight for a two-axle truck can be as much as 20 tons with four tires on the back axle. These vehicles would exceed the 3-ton weight limit for residential areas and they would be more disruptive to area traffic circulation than smaller vehicles. The 3-ton limit, although harder to discern, ensures that vehicles traversing Mar Vista Street would not contribute to the heavily impacted traffic levels in this area. Therefore, the weight limit of 3 tons has been made consistent throughout the document.
Matrix-16	The reference to the gas pipeline along the North Access Road has been removed from Section 2.0, Project Description.
Matrix-17	The volume of cut and fill associated with the North Access Road construction has been changed to 2,000 cubic feet according to Matrix comments.
Matrix-18	The reference to Ocean Avenue has been changed to York Avenue.
Matrix-19	The text has been modified to indicate that the well logging unit, the cementing unit, and the coil tubing unit are separate pieces of equipment.
Matrix-20	The reference to sidetracking a well under the discussion of workover procedures has been removed from the Final EIR.
Matrix-21	The text has been corrected to five cumulative projects rather than seven.
Matrix-22	Section 4.1, Air Quality, assumes the use of an internal floating roof with vapor recovery systems. This produces substantially lower emissions than a fixed roof tank, by at least 3 tons per year of VOC. However, as according to the Applicant the unmitigated design would be a fixed roof tank on all organic equipment, and the air emission calculations have been revised to reflect the increase in emissions associated with fixed roof tanks. This would affect all tanks handling crude oil, including the three primary storage tanks, the reject tank, and the wash tank. Recalculations show that VOC emissions would exceed the SCAQMD daily thresholds with the fixed roof tank and would require mitigation. Mitigation measures requiring internal floating roofs, or higher efficiency vapor recovery, or some other method, has therefore been applied. References to floating roofs in the unmitigated design have been changed to indicate a fixed roof.
Matrix-23	We believe this comment refers to “biological” reports, not “geological” as stated. There was no intent to bolster the contention that this habitat is important, or provides vital resources to wildlife, or that this area contains sensitive species, or contains critical habitat for a federally listed species. These are all facts and do not require the omission of any annual report. The 2011 report was not provided to the Draft EIR biologists in enough time to incorporate it into the Draft EIR.
Matrix-24	The commenter contends that the Project is located in primarily low quality or disturbed areas. However, the entire Project, which includes disturbances beyond the pad site, includes roads and pipelines extending to the north, disturbances to sensitive and protected habitats and includes both vegetation removal and ongoing noise and disturbances to habitat located in a preserve.
Matrix-25	Incidental Take Permits issued by both the USFWS and the CDFG can include Mitigation Management Plans or Habitat Conservation Plans. According to the CDFG website: “Measures to minimize the take of species covered by the permit (Covered Species) and to mitigate the impacts caused by the take would be set forth in one or more attachments to the permit. This attachment would generally be a mitigation plan (possibly a Habitat Conservation Plan) prepared and submitted by the Permittee in coordination with Department staff.”
Matrix-26	Commenter requests that the Draft EIR specify that noise contour impacts detailed for sensitive resources state whether noise contours already include mitigated contours. The following footnote has been added to the bottom of Table 4.2-3: “Note: Noise contour >60 dBA refers to noise contour that includes noise reduction mitigation proposed in Section 4.5.”

Comment #	Response
Matrix-27	Table 4.2-3 includes acreages of disturbances for road improvements and hillside stabilization. Figure 4.2-9 has been updated to include those areas of disturbance.
Matrix-28	Mitigation measures BIO-2a and 2b address impact BIO.2.
Matrix-29	No formal wetlands delineation study has yet been prepared for the proposed Project. Once the California Environmental Quality Act review process has been completed, a jurisdictional delineation would be carried out in order to obtain the required permits and agreements, as specified in mitigation measure BIO-2b. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. Together, mitigation measures BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects would remain at a level less than significant.
Matrix-30	The term "unmitigated" refers to the oil operations occurring prior to the establishment of the Preserve without any of the protective measures now in place. The point is that the area and habitat were able to recover (with active restoration efforts) and are now able to support sensitive resources and, therefore, should be able to do so again after this phase of oil development with all of the applied mitigation and substantially less impact.
Matrix-31	Text has been changed to add birds and bats to those species not expected to be significantly impacted by the Proposed Project.
Matrix-32	The Draft EIR preparers have now reviewed the Habitat Authority's 2010 report, "Changes in Large and Medium-bodied Mammal Activity Following Eight Years of Recreation and Other Activities: The Colima Road Underpass and Vicinity." This new report provides up-to-date information that is relevant to the Draft EIR's consideration of wildlife movement issues and potential adverse effects of project implementation upon bobcats and other species. The study shows that bobcat activity at the Service Tunnel decreased by approximately one-third since it was opened to public use in 2002. This study also showed that bobcat activity in the area around the Tunnel, including portions of the proposed Project Area within and near Arroyo Pescadero, has decreased substantially since the late 1990s, after oil activities had ceased in the area but before it was opened to recreational activity. The Draft EIR now states: "The intersection of the Loop and Colima roads, a portion of the underground oil and gas production pipelines and metering station is located near the entrance (approximately 1,750 feet) away from the Service Tunnel, which is an important region-wide linkage for terrestrial wildlife attempting to traverse Colima Road immediately east of the Project Site."
Matrix-33	The reference to the gas pipeline between the facilities and the Landfill has been removed in the Final EIR.
Matrix-34	Reference to the Table 4.5-8 has been corrected in the Final EIR.
Matrix-35	Reference to the church has been removed from the proposed Project discussion in the Final EIR, but has been retained in the discussion of the Loop Road Alternative.
Matrix-36	Text has been changed in the Final EIR.
Matrix-37	Text has been changed in the Final EIR.
Matrix-38	Text has been changed in the Final EIR.

Comment #	Response
Matrix-39	Text has been changed in the Final EIR.
Matrix-40	The option to apply gravel during the test phase has been added to mitigation measure AQ-2b in the Final EIR.
Matrix-41	Individual tank monitors allow for the monitoring of the effectiveness of the vapor control system as well as giving an indication of periods when tank pressure may have exceeded the relief valve system on the tank. If the vapor recovery system fails or is not sized correctly to handle variations in flow, tank pressure could rise, allowing vapors to be released causing an odor event. This system has been installed at Baldwin Hills Oil Field with success.
Matrix-42	Installing CARB diesel particulate catalysts is in accordance with CARB and SCAQMD guidelines for diesel engine controls and is utilized on drilling engines in the Los Angeles area, such as the Ensign rigs used at Baldwin Hills. Mitigation measure AQ-5 has been modified to include the option of utilizing an equivalent engine, such as a Tier 4 engine with similar or better PM emissions, or an electric drilling rig.
Matrix-43	The requirement for planting 500 trees has been removed from mitigation measure AQ-4 in the Final EIR.
Matrix-44	Specifics of how to implement conditions of approval, responsible parties, funding, and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and it is not really pertinent to the Draft EIR.
Matrix-45	Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and it is not really pertinent to the Draft EIR.
Matrix-46	The protection of topsoil in native habitats is important to restoration, protecting and salvaging the local seed bank, and speeds the recovery of temporarily disturbed habitats. Salvaging the upper 1-foot of soil is a common requirement of habitat restoration and has proven relatively feasible to implement at the early stage of site preparation.
Matrix-47	Changes to mitigation measure BIO-1d have been made in the Final EIR.
Matrix-48	Changes to mitigation measure BIO-2a have been made in the Final EIR.
Matrix-49	Mitigation has been changed to specify that speed limits apply to those roads <u>within</u> the Preserve. However, the Draft EIR biologists believe 10 miles per hour is a necessary speed restriction due to the extremely important wildlife corridor issue associated with road access. Speed signs by themselves do not ensure reduced speed limits especially in remote areas with steeper inclines. The use of speed bumps in association with slower speeds is common practice; speed bumps, rumble strips, and berms are commonly used on construction sites with large pieces of equipment and haul trucks.
Matrix-50	The text has been changed from songbirds to native birds. The purpose of requiring initial vegetation removal to occur outside the nesting season is to ensure that there is no violation of the Migratory Bird Treaty Act. There is no practical permitting process the Applicant can attempt to circumvent the loss or potential loss of a bird or nest. Although it is appreciated that all efforts would be made to comply with this Act, CEQA does not allow the mitigation to be so non-specific. The wording cannot be changed so as to "minimize" impacts to nesting birds; there can only be "<u>no</u> impact." However, the mitigation measure has been amended to specify that the requirement is specific to vegetation removal activities and not all construction activities.
Matrix-51	The text has been changed from songbirds to native birds.
Matrix-52	Please see the response to comment Matrix-50.
Matrix-53	The Habitat Authority's 2010 report, "Changes in Large and Medium-bodied Mammal Activity Following Eight Years of Recreation and Other Activities: The Colima Road

Comment #	Response
	Underpass and Vicinity" provides information that shows that bobcat activity at the Service Tunnel decreased by approximately one-third since it was opened to public use in 2002. This study also showed that bobcat activity in the area around the Tunnel, including portions of the proposed Project Area within and near Arroyo Pescadero, has decreased substantially since the late 1990s.
Matrix-54	Table 4.2-7 has been amended as suggested.
Matrix-55	The purpose of mitigation measure BIO-4n is to reduce foot traffic moving through the Service Tunnel at times when drilling operations would result in the most impacts to wildlife movement. As the Draft EIR states on page 4.2-56: "Figure 4.2-10 shows the existing old oilfield roads that provide pathways for terrestrial wildlife crossing the Arroyo Pescadero and moving from there to and from the Service Tunnel. The Service Tunnel has been identified as an important element of wildlife movements in the area and the impacts to wildlife movement would be significant. The Service Tunnel has also been utilized as a recreational resource as part of the Arroyo San Miguel trail, which passes through the tunnel and accesses the Preserve on the east side of Colima Road."
Matrix-56	Cumulative impacts to the Preserve would be less than significant with the implementation of proposed mitigation. The purpose of the cumulative mitigation measures, including reducing noise impacts at the Sycamore Canyon facilities, is to reduce impacts in the entire Preserve, not to exclusively reduce those impacts at the Project Site.
Matrix-57	The mitigation measures identified in the Draft EIR were designed to bolster the ecological resilience of the Preserve in the Project vicinity, counteracting the adverse effects of the proposed Project, both considered alone and in the context of contributions to cumulatively considerable impacts of other planned Projects. Cumulative impacts to the Preserve would be reduced to less than significant with the implementation of proposed mitigation.
Matrix-58	Although the gas pipeline and tie-in would be under the jurisdiction of Southern California Gas Company, backflow devices or automatic shutdown valves would improve the safety of the system and prevent a sustained release of gas in the event of a break in the gas pipeline between the Applicant's facility and the tie-in at Lambert Avenue. The Draft EIR and CEQA analysis apply to all aspects of the proposed Project. In light of the recent explosion in San Bruno and the subsequent sustained release, shutoff devices should be seriously considered, particularly when installing new systems. Legislation requiring shutoff valves is currently pending in Congress. Senate Bill 3824 would require installing remotely or automatically controlled valves capable of "shutting off the flow of gas" in natural gas pipelines "wherever technically and economically feasible" (§6). House Bill 6295 would require installing "automatic or remote shut off valves" for all new transmission pipelines and for existing transmission pipelines near significant earthquake faults or in relatively populated areas (§6). Senate Bill 3856 would require automatic or remotely controlled shut off valves "where economically and technically feasible" for all new transmission pipelines (§5). A 1999 Department of Transportation study concluded "there is a role for remotely controlled valves in reducing the risk from certain ruptured pipelines and thereby minimizing the consequences of certain gas pipeline ruptures.... Any fire would be of greater intensity and would have greater potential for damaging surrounding infrastructure if it is constantly replenished with gas. The degree of disruption in heavily populated and commercial areas would be in direct proportion to the duration of the fire." In addition, 49 CFR 192.935c requires that "if an operator determines, based on a risk analysis, that an [automatically or remotely controlled valve] would be an efficient means of adding protection to a high consequence area in the event of a gas release, an operator must install the [automatically or remotely controlled valve]. In making that

Comment #	Response
	determination, an operator must, at least, consider the following factors—swiftness of leak detection and pipe shutdown capabilities, the type of gas being transported, operating pressure, the rate of potential release, pipeline profile, the potential for ignition, and location of nearest response personnel."
Matrix-59	Mitigation measure GR-6b has been modified to be applicable to only buried metal pipelines.
Matrix-60	Although the gas pipeline and tie-in would be under the jurisdiction of Southern California Gas Company, backflow devices or automatic shutdown valves would improve the safety of the system and prevent a sustained release of gas in the event of a break in the gas pipeline between the Applicant's facility and the tie-in at Lambert Avenue. The Draft EIR and CEQA analysis apply to all aspects of the proposed Project. In light of the recent explosion in San Bruno and the subsequent sustained release, shutoff devices should be seriously considered, particularly when new systems are being installed. Legislation requiring shutoff valves is currently pending in Congress. Senate Bill 3824 would require installing remotely or automatically controlled valves capable of "shutting off the flow of gas" in natural gas pipelines "wherever technically and economically feasible" (§6). House Bill 6295 would require installing "automatic or remote shut off valves" for all new transmission pipelines and for existing transmission pipelines near significant earthquake faults or in relatively populated areas (§6). Senate Bill 3856 would require automatic or remotely controlled shut off valves "where economically and technically feasible" for all new transmission pipelines (§5). A 1999 Department of Transportation study concluded "there is a role for remotely controlled valves in reducing the risk from certain ruptured pipelines and thereby minimizing the consequences of certain gas pipeline ruptures.... Any fire would be of greater intensity and would have greater potential for damaging surrounding infrastructure if it is constantly replenished with gas. The degree of disruption in heavily populated and commercial areas would be in direct proportion to the duration of the fire." In addition, 49 CFR 192.935c requires that "if an operator determines, based on a risk analysis, that an [automatically or remotely controlled valve] would be an efficient means of adding protection to a high consequence area in the event of a gas release, an operator must install the [automatically or remotely controlled valve]. In making that determination, an operator must, at least, consider the following factors—swiftness of leak detection and pipe shutdown capabilities, the type of gas being transported, operating pressure, the rate of potential release, pipeline profile, the potential for ignition, and location of nearest response personnel."
Matrix-61	The proposed Project would develop areas that were not addressed in the site assessment since the assessment was conducted for an earlier design. If the previous assessment can be shown to satisfy the needs of the current proposed Project, then the mitigation would be easily implemented.
Matrix-62	Text has been changed in the Final EIR.
Matrix-63	Text has been changed in the Final EIR.
Matrix-64	Text has been changed in the Final EIR.
Matrix-65	Oil production would remove significant quantities of oil and wastewater from the reservoir. While reinjection of all wastewater would offset the potential impact of wastewater removal, oil volumes removed would not be reinjected, potentially resulting in subsidence. This subsidence could be offset by reinjecting water into the reservoir as determined by the DOGGR.
Matrix-66	Sound walls around the gas plant would reduce noise impacts to biological resources in the area. Mitigation measure BIO-1a requires offsetting the area that exceeds 60 dBA during operations at a 1:1 ratio. If the LACoFD prevents the installation of the sound walls, which need to be offset with additional restoration, then additional area would be impacted by noise. This would allow for the removal of the sound walls

Comment #	Response
	within the scope of the EIR. The sound wall design would allow for access to the site. The mitigation measure has been retained in the Final EIR.
Matrix-67	Mitigation measure N-2c has been clarified to indicate that the City has the authority to shut down operations.
Matrix-68	The limit of 40 daily trips would ensure that the impacts along Mar Vista Street would not exceed traffic thresholds. Allowing for a monthly average would imply that on some days, exceeding the significance thresholds would be allowable. This would not be the case. Therefore, the mitigation measure retains the 40-daily-trip limit on Catalina Avenue. If more traffic is required, it could utilize the North Access Road.
Matrix-69	The language of mitigation measure T-1c has been modified to include limits on vehicle size and to allow some large vehicle access through Catalina Avenue during the initial North Access Road construction phase.
Matrix-70	This portion of mitigation measure T-1d would allow larger vehicles approaching from the east to turn more easily from Mar Vista Street onto Catalina Avenue, which was recommended by the Traffic Study. Language has been added to allow for discretion by the City Engineer.
Matrix-71	Mitigation measure T-1f has been modified to only apply to trucks during the operational phase. The Public Works Department has indicated that contracts could be cancelled, which would allow for a zero net increase in truck trips along Penn Street during operations. Coordination with the City would be necessary to accomplish the goals of this measure.
Matrix-72	Contributions to fair-share-type systems are standard practice for developments, and they would be developed by the City or appropriate traffic agency.
Matrix-73	The language in the mitigation measure has been amended in response to this comment; however, the requirement for an impermeable membrane remains and it is unclear from the comment how having the membrane would prevent storm water from being collected in the cellars.
Matrix-74	The requirement for the installation of the leak detection system applies to the pipeline carrying crude from the Oil processing facility to the Crimson pipeline. Therefore, this oil would have already been treated and gaseous fluid would have been removed and not affect the flow balancing every 5 minutes.
Matrix-75	The mitigation measure has been modified to require walking the pipelines within the Preserve. This is a standard requirement for a pipeline located near sensitive areas.
Matrix-76	The description of two bathrooms is from Matrix's Project Description. The requirement for a capacity test comes from the Los Angeles County Sanitation District.
Matrix-77	Mitigation measure FP-2a has been revised to allow for Fire Department discretion on the placement and use of fire water monitors.

Appendix M

Government Agencies' Comments

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.dfg.ca.gov

EDMUND G. BROWN, Jr. Governor
JOHN McCAMMAN, Director

RECEIVED
JUL 20 2011
Community Development

July 20, 2011

Mr. Jeff Adams
City of Whittier
13230 Penn Street
Whittier, CA 90602
Fax #: (562) 464-3509

Subject: Draft Revised Environmental Impact Report for Matrix Whittier Oil Field Project, SCH #2010011049, Los Angeles County

Dear Mr. Adams:

The Department of Fish and Game (Department) has received the draft Revised Environmental Impact Report (DREIR) for the proposed Matrix Whittier Oil Field Project. The Project proposes to drill wells for oil and gas production on lands owned by the City of Whittier (City) for which the City also owns mineral rights. The proposed Project would involve drilling wells and producing oil and gas from the Project Site, which includes approximately 7 acres of pad area plus additional disturbed and modified areas and roads owned by the City. The project site is included within the Puente Hills Landfill Native Habitat Preserve (Preserve). The 3,869-acre Preserve is located at the eastern edge of Los Angeles County and extends across three jurisdictions: the City of La Habra Heights; the City of Whittier; and the communities of Rowland Heights and Hacienda Heights, both in unincorporated Los Angeles County. The Preserve is a part of the larger Puente Chino Hills Wildlife Corridor in which much attention and resources have been devoted to preserving connectivity through this area which connects to the San Gabriel River and Santa Ana Mountains.

The Project Site is included within a larger City-owned property of approximately 1,290 acres of former oil fields. Additional impacts from road construction, pipeline construction, equipment parking/staging areas and fuel modification zones around the drill pads are proposed as part of the project. The project area was commonly known as the Whittier Main Field, an active oil field that produced oil for more than 100 years with approximately 500 drilled wells until the early 1990s. The majority of the land encompassing the oil field was purchased from Chevron and Unocal Corporation by the City via a grant of Proposition A funds. Proposition A authorized numerous urbanized counties statewide to issue a tax assessment for the purchase of open space including enhancing recreational opportunities and expanded access to recreational facilities for all residents throughout the district and improve the quality of life for all communities in the district by protecting, restoring, and improving the district's irreplaceable beach, wildlife, park, and open-space land.

The project sites are zoned as Open Space (OS) under the City Municipal Code *Section 18.09.010* which states "The purpose of the OS zone and provisions of this chapter is the delineation of wild lands, wildlife and wildlife habitat. Restoration and protection of such areas provides valuable resources for the community, and surrounding communities, through conservation and integrated use."

Conserving California's Wildlife Since 1870

Conditions of the Proposition A funding prevent the City from using the land for anything other than open space. The Preserve, including the project sites, is currently managed for the City by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority). Currently, activity at the Whittier Main Field is limited to Preserve operations and activities, which consist of restoration and management of natural areas, and management of educational and recreational facilities.

On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement with Matrix. The agreement leases the City's mineral rights underlying the Whittier Main Field to Matrix and provides that, subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land. In exchange, Matrix would pay the City royalties on proceeds from the sale of produced oil and natural gas.

In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space.

As proposed, the preferred Project implementation would include vegetation removal for well pad construction, processing pad construction, road widening and realignment, vegetation clearing on the sides of facilities and roads for fire fuel reduction requirements, the construction of new underground oil and gas production pipelines along the Loop Road, and the installation of an underground electrical power line along the main access road from the Project Site to the tie-in of the SCE Line at Ocean View Ave.

The USFWS designates the Project Site as critical habitat for the federally threatened *Polioptila californica* (coastal California gnatcatcher). Two individual gnatcatchers and one family group have been observed within the Project Area boundaries during protocol surveys conducted in coastal sage scrub and riparian scrub on the Project Site. Project implementation would entail permanent loss of 4.16 acres of coastal sage scrub and 0.22 acres of riparian scrub for grading and clearing for fuel modification. Another 0.86 acres of coastal sage scrub and 0.03 acres of riparian scrub would be temporarily impacted by grading and then will be restored to native vegetation. The DREIR concludes that proposed impacts represent potentially significant adverse impacts to coastal California gnatcatcher and its required habitat.

Several additional "special status" species that are not listed as threatened or endangered are present, or could be present, on the Project Site. *Neotoma lepida intermedia* (silvery legless lizard), *Icteria virens* (yellow-breasted chat), *Antrozous pallidus* (pallid bat), and *Neotoma lepida intermedia (*San Diego desert woodrat) are California Species of Special Concern that are known or presumed to occur on the site. The DREIR concludes that the Project's permanent grading impacts to approximately 13.54 acres and temporary impacts to approximately 8.03 acres of native upland habitats used by these species would be potentially less than significant with mitigation.

The California Wildlife Action Plan, a recent Department guidance document, identified the following stressors affecting wildlife and habitats within the project area: 1) growth and development; 2) water management conflicts and degradation of aquatic ecosystems; 3) invasive species; 4) altered fire regimes; and 5) recreational pressures. The Department looks forward to working with the Lead Agency to minimize impacts to fish and wildlife resources with a focus on these stressors. Please let Department staff know if you would like a copy of the plan to review.

The Department provided a comment letter dated 12/7/2010 (attached) on the previous Oilfield project described in the DEIR submitted for public review dated 10/6/2010 through 12/6/2010. The following comments for the current subject DREIR were prepared under the Department authority as California's Trustee Agency for fish and wildlife resources, holding these resources in trust for the People of State pursuant to various provisions of the California Fish and Game Code. (Fish & G. Code, §§ 711.7, subd. (a), 1802.) The Department submits these comments in that capacity under the California Environmental Quality Act (CEQA). (See generally Pub. Resources Code, §§ 21070; 21080.4.) Given its related permitting authority under the California Endangered Species Act (CESA) and Fish and Game Code section 1600 *et seq.*, the Department also submits these comments likely as a Responsible Agency for the Project under CEQA. (*Id.*, § 21069.):

CEQA Compliance

1. Open Space Zoning Provision – The proposed project site is within a Preserve area that is zoned as Open Space by the City.

The DREIR does not appear to include a rezoning proposal that would change the land use provisions for the project site. Because oil and gas extraction and resulting environmental impacts, including significant unavoidable impacts to wildlife movement and loss of occupied coastal California gnatcatcher habitat is not compatible with the City's stated zoning ordinance the DREIR should clearly explain this apparent inconsistency. CDFG-1

2. Whole of the Action Considerations - The DREIR states "On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement (Lease Agreement) with Matrix. The agreement leases the City's mineral rights underlying the Whittier Main Field to Matrix and provides that, subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land."

   a. The DREIR does not appear to reference any previous level of CEQA review regarding the Oil, Gas, and Mineral Lease Agreement with Matrix in 2008 or a zoning ordinance change to accommodate the project. CEQA requires a Lead Agency to consider the whole of the action when analyzing a project's environmental impacts (CEQA Guidelines §15063(a)(1), §15378). This includes activities that lead to reasonably foreseeable direct and/or indirect effects which are actual or potential (CEQA Guidelines §15064(d)). CDFG-2

   b. If the Lead Agency prepared a Negative Declaration or Environmental Impact Report for the Lease Agreement, the Department believes that this action is part of

the same project and should have been discussed in one CEQA document which included the proposed Project CUP consideration prior to entering into the Lease Agreement. The preparation and circulation of separate CEQA documents for actions that are parts of the same project (commonly referred to as "piece-mealing") is therefore not allowed by CEQA. The Department believes the Lease Agreement, zone change request and the CUP should be noticed under one CEQA document as it was reasonably foreseeable that the proposed Project and zone change is the direct and/or indirect effect of the Lease Agreement. CDFG-3

c. If the Lead Agency prepared a Categorical Exemption for their discretionary issuance of a Lease Agreement, a Categorical Exemption should not be used for any activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances (CEQA Guidelines §15300.2(c). CDFG-4

d. The Department recommends that the Lease Agreement be invalidated pending further Lead Agency discretionary action approvals following the public comment period for a CEQA document that includes the whole of the action which includes the Lease Agreement, request for zone change and CUP if this has not already been accomplished. CDFG-5

Project Alternatives

1. No Project Alternative – The DREIR describes a No Project Alternative. With the No Project Alternative, the oilfield would not be developed and the resources of the oilfield would not be utilized. Under the No Project Alternative, no new activity would occur at the Preserve.

   a. The Department acknowledges that the DREIR has implemented several of the Department's recommendations to implement mitigation measures to further reduce impacts from the project to botanical and wildlife resources. The Department however continues to recommend that no oil and gas extraction take place within the Project sites zoned as open space, which are recognized for its biological resource attributes. The No Project Alternative would avoid impacts to biological resources within this preserve. The proposed activities appear to be incompatible with the unique biological attributes for which this location was zoned. In addition, if oil extraction is approved within the preserve area as proposed, the Department is concerned that this sets a precedent for further degradation of the preserve area for consumptive resource extraction in the future. CDFG-6

Impacts to Biological Resources

1. Core Habitat – In the Core Habitat discussion of the DREIR it is stated "It is also relevant that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, without resulting in significant, long-term, adverse effects on the local wildlife populations. For these reasons, the proposed actions are not anticipated to substantially inhibit the bobcat and other larger mammal species' use of the La Cañada Verde watershed, either as a nursery site or as a movement corridor. It is concluded that the Project's potential impacts on bobcats and

other wildlife species will be adverse, but less than significant with provision of the required mitigation measures."

a. Please provide references to substantiate the conclusion regarding decades of oil operations and the resulting lack of long-term adverse effect on local wildlife populations based upon baseline data and current population trends. CDFG-7

b. The Department is concerned that the project may result in degradation of the Preserve area from any proposed oil development on the project site. Please provide a summary of any historical petroleum releases and wildfires resulting from oil operations in the project area and any records of violations by Matrix Oil Company at any of their other operating sites that may raise concern for future environmental compliance at the proposed project site. CDFG-8

Thank you for this opportunity to provide comments. Please contact Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

Edmund Pert
Regional Manager
South Coast Region

Attachment

cc: Ms. Terri Dickerson, CDFG, Laguna Niguel
Ms. Kelly Schmoker, CDFG, Pasadena
Mr. Scott Harris, CDFG, Pasadena
Ms. Sarah Rains, CDFG, Thousand Oaks
State Clearinghouse, Sacramento

Mr. Ken Corey
United States Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, California 92011

Ms. Shannon Lucas
Puente Hills Habitat Authority
7702 Washington Avenue, Suite C
Whittier, CA 90602

California Natural Resources Agency
DEPARTMENT OF FISH AND GAME

ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMAN, Director

South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201
http://www.dfg.ca.gov

December 7, 2010

Mr. Jeff Adams
City of Whittier
13230 Penn Street
Whittier, CA 90602
Fax #: 562-464-3509

Subject: Draft Environmental Impact Report for Matrix Whittier Oil Field, SCH #2010011049, Los Angeles County

Dear Mr. Adams:

The Department of Fish and Game (Department) has received the draft Environmental Impact Report (DEIR) for the proposed Matrix Whittier Oil Field Project. The Project proposes to drill wells for oil and gas production on lands owned by the City of Whittier (City) for which the City also owns mineral rights. The Project includes three drill pad sites totaling approximately 7 acres included within a larger City owned property of approximately 1,290 acres of former oil fields. Additional impacts totaling approximately 6.1 acres plus additional unknown acres of impacts from road construction, pipe construction and fuel modification zones around the drill pads are proposed as part of the project. The project area was commonly known as the Whittier Main Field, an active oil field that produced oil for more than 100 years with approximately 500 drilled wells until the early 1990s. The majority of the land encompassing the oil field was purchased from Chevron and Unocal Corporation by the City via a grant of Proposition A funds. Proposition A authorized numerous urbanized counties statewide to issue a tax assessment for the purchase of open space including enhancing recreational opportunities and expanded access to recreational facilities for all residents throughout the district and improve the quality of life for all communities in the district by protecting, restoring, and improving the district's irreplaceable beach, wildlife, park, and open-space land.

The project sites are zoned as Open Space (OS) under the City Municipal Code *Section 18.09.010* which states "The purpose of the OS zone and provisions of this chapter is the delineation of wild lands, wildlife and wildlife habitat. Restoration and protection of such areas provides valuable resources for the community, and surrounding communities, through conservation and integrated use." The project sites are part of the larger Puente Hills Landfill Native Habitat Preserve (Preserve). The 3,869-acre Preserve is located at the eastern edge of Los Angeles County and extends across three municipalities: the City of La Habra Heights; the City of Whittier; and the communities of Rowland Heights and Hacienda Heights, both in unincorporated Los Angeles County. The Preserve is a part of the larger Puente Chino Hills Wildlife Corridor in which much attention and resources have been devoted to preserving connectivity through this area which connects to the San Gabriel River and Santa Ana Mountains.

Conditions of the Proposition A funding prevent the City from using the land for anything other than open space. The preserve, including the project sites is currently managed for the City by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority). Currently, activity at the Whittier Main Field is limited to Preserve operations and activities, which consist of restoration and management of natural areas, and management of educational and recreational facilities.

On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement with Matrix. The agreement leases the City's mineral rights underlying the Whittier Main Field to Matrix and provides that, subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land. In exchange, Matrix would pay the City royalties on proceeds from the sale of produced oil and natural gas.

In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space.

As proposed in the DEIR, the fully developed Project would consist of wells, an oil processing facility, a gas plant, a new access road, and an oil-truck loading facility located within portions of the 1,290 acres owned by the City. The oil and gas production and processing facilities would be located at three sites within the Whittier Main Field: the West Well Site, the Central Site, and the East Well Site (see Figure ES-2). A crude oil pipeline and a gas pipeline would be installed underneath Colima Road, sections of which separately fall within City and County unincorporated areas, to transport crude oil and gas to markets. All three of the sites would contain well cellars, well test stations, and liquid and gas separating equipment. In addition, the Central Site would house the oil processing facility and gas plant. The total pad area required for the oil and gas production and processing at the three sites is approximately 6.0 acres. An additional 4.4 acres may be temporarily disturbed for construction and grading the sites. Further, the County of Los Angeles Fire Department (LACoFD) may require a fuel modification zone (FMZ) around each pad area. An FMZ is a strip of land where combustible native or ornamental vegetation is modified or partially or totally replaced with drought-tolerant, low-fuel-volume plants. The truck loading facility would occupy an additional 1.1 acres within the Preserve. An additional 0.6 acres may be temporarily disturbed for constructing and grading the truck loading area. A new access road to the Central Site would be constructed from Colima Road, which would include turning lanes to and from the southbound side of Colima Road. The new access road would be constructed along the southern edge of the Preserve. Roads, pipelines, and electrical conduit corridors, called the "backbone," would be constructed to connect these site locations. Oil, gas, and produced water pipelines and electrical conduits would be constructed below ground mostly within the road system. Electrical and pipeline interconnections would be made to the Southern California Edison grid and the City of Whittier Sewer and Water District systems.

The Project would utilize approximately 1.1 miles of existing roads within the Preserve and would construct 0.5 miles of new roadways within the Preserve to access the various sites. Oil and gas would be transported by truck during the Drilling and Testing Phase and by pipeline during the normal Operations and Maintenance Phase.

Matrix proposes two methods for transporting the marketable crude oil during the operations phase. One method would convey the oil via pipeline to the Truck Loading Facility directly east

of the Central Well Pad area, where the oil would be loaded onto oil tanker trucks and transported to a nearby receiving terminal (e.g., possibly in Santa Fe Springs) and then transferred into the Crimson Pipeline System.

The second oil transportation method would transfer the marketable crude oil by pipeline from the Central Site to the existing Crimson Pipeline System via a new 2.8-mile pipeline connection to a tie-in at Leffingwell Road and La Mirada Boulevard. The Crimson Pipeline System would transport the crude to the ConocoPhillips Refinery in Wilmington. This would be the primary transport method, while the tanker truck method would be used during the oil pipeline construction and then as a back-up when the pipeline is temporarily shutdown.

The USFWS designates the Project Site as critical habitat for the federally threatened coastal California gnatcatcher (*Polioptila californica*). Two individual gnatcatchers and one family group have been observed within the Project Area boundaries during protocol surveys conducted in coastal sage scrub and riparian scrub on the Project Site. Project implementation would entail permanent loss of 2.73 acres of coastal sage scrub and 0.07 acres of riparian scrub for grading and clearing for fuel modification. Another 0.82 acres of coastal sage scrub and 0.12 acres of riparian scrub would be temporarily impacted by grading, and then restored. These represent potentially significant adverse effects upon this listed species and its required habitat.

The California Wildlife Action Plan, a recent Department guidance document, identified the following stressors affecting wildlife and habitats within the project area: 1) growth and development; 2) water management conflicts and degradation of aquatic ecosystems; 3) invasive species; 4) altered fire regimes; and 5) recreational pressures. The Department looks forward to working with the Lead Agency to minimize impacts to fish and wildlife resources with a focus on these stressors. Please let Department staff know if you would like a copy of the plan to review.

The following comments were prepared under the Department authority as California's trustee agency for fish and wildlife resources, holding these resources in trust for the People of State pursuant to various provisions of the California Fish and Game Code. (Fish & G. Code, §§ 711.7, subd. (a), 1802.) The Department submits these comments in that capacity under the California Environmental Quality Act (CEQA). (See generally Pub. Resources Code, §§ 21070; 21080.4.) Given its related permitting authority under the California Endangered Species Act (CESA) and Fish and Game Code section 1600 et seq., the Department also submits these comments likely as a responsible agency for the Project under CEQA. (*Id.*, § 21069.):

CEQA Compliance

1.<u>Open Space Zoning Provision</u> – The proposed project site is within a Preserve area that is zoned as Open Space by the City.

The DEIR does not appear to include a rezoning proposal that would change the land use provisions for the project site. Because oil and gas extraction and resulting environmental impacts, including significant unavoidable impacts to wildlife movement and loss of occupied coastal California gnatcatcher habitat is not compatible with the City's stated zoning ordinance the DEIR should clearly explain this apparent inconsistency.

2. <u>Whole of the Action Considerations</u> - The DEIR states "On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement (Lease Agreement) with Matrix. The agreement leases the City's mineral rights underlying the Whittier Main Field to Matrix and provides that,

subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land."

a. The DEIR does not appear to reference any previous level of CEQA review regarding the Oil, Gas, and Mineral Lease Agreement with Matrix in 2008 or a zoning ordinance change to accommodate the project. CEQA requires a lead agency to consider the whole of the action when analyzing a project's environmental impacts (CEQA Guidelines §15063(a)(1), §15378). This includes activities that lead to reasonably foreseeable direct and/or indirect effects which are actual or potential (CEQA Guidelines §15064(d)).

b. If the Lead Agency prepared a Negative Declaration or Environmental Impact Report for the Lease Agreement, the Department believes that this action is part of the same project and should have been discussed in one CEQA document which included the proposed Project CUP consideration prior to entering into the Lease Agreement. The preparation and circulation of separate CEQA documents for actions that are parts of the same project (commonly referred to as "piece-mealing") is therefore not allowed by CEQA. The Department believes the Lease Agreement, zone change request and the CUP should be noticed under one CEQA document as it was reasonably foreseeable that the proposed Project and zone change is the direct and/or indirect effect of the Lease Agreement.

c. If the Lead Agency prepared a Categorical Exemption for their discretionary issuance of a Lease Agreement, a Categorical Exemption should not be used for any activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances (CEQA Guidelines §15300.2(c).

d. The Department recommends that the Lease Agreement be invalidated pending further Lead Agency discretionary action approvals following the public comment period for a CEQA documents that includes the whole of the action which includes the Lease Agreement, request for zone change and CUP if this has not already been accomplished.

Project Alternatives

1. <u>No Project Alternative</u> – The DEIR describes a no project alternative. With the No Project Alternative, the field would not be developed and the resources of the field would not be utilized. Under the No Project Alternative, no new activity would occur at the Preserve.

a. The Department recommends that no oil and gas extraction take place within the Project sites zoned as open space within an open space preserve recognized for its biological resource attributes. The no project alternative would avoid impacts to biological resources within this preserve. The proposed activities appear to be incompatible with the unique biological attributes for which this location was zoned. In addition, if extraction occurs within the preserve area, there is concern about further degradation of the preserve area by the City's extraction proposals in the future.

b. The Department recommends an additional Project alternative in which areas within the City included within the Preserve, such as the proposed Project sites, be protected in perpetuity under conservation easements via a conservation mitigation banking program. If the City is seeking additional revenue from its property within the Preserve, it could designate these areas as a conservation mitigation bank and sell mitigation credits. This alternative would be

more biologically compatible with the zoning designation and the conservation visions for which the City originally proposed for this area.

Project Footprint Description

New Road Construction – The DEIR states that "The Project would utilize approximately 1.1 miles of existing roads within the Preserve and would construct 0.5 miles of new roadways within the Preserve to access the various sites."

Please clearly describe in the EIR the impact acreages from the new 0.5 miles of new roadways.

Fuel Modification – The DEIR states that "the County of Los Angeles Fire Department (LACoFD) may require a fuel modification zone (FMZ) around each pad area."

Please clearly describe in the EIR the impact acreages from the FMZ.

New Connection Pipeline - The DEIR states "The second oil transportation method would transfer the marketable crude oil by pipeline from the Central Site to the existing Crimson Pipeline System via a new 2.8-mile pipeline connection to a tie-in at Leffingwell Road and La Mirada Boulevard."

Please clearly describe in the EIR the impact acreages from the new pipeline footprint and if it will cross jurisdictional waters of the state. Linear projects such as this often impact Department jurisdictional streambeds.

Impacts to Biological Resources

1. Los Angeles pocket mouse *(Perognathus longimembris brevinasus)* – The project site appears to support habitat for the Los Angeles pocket mouse.

a. The Los Angeles Pocket mouse, a California species of special concern is a small mammal that is often overlooked during biological assessments in the county. The DEIR should describe the presence or absence of suitable habitat for the Los Angeles pocket mouse and any related impacts. The absence of trapping efforts for this species in this area should not be used to rule out presence minus recent focused trapping efforts conducted on the project sites within suitable habitat.

2. San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) – The site appears to support suitable habitat for the San Diego black-tailed jackrabbit, a California species of special concern.

a. The DEIR should describe the presence or absence of suitable habitat for the. San Diego black-tailed jackrabbit and any project related impacts.

Mitigation Measures

1. Coastal Sage Scrub – The DEIR states "To mitigate the Project's permanent loss of 2.73 acres of coastal sage scrub, the Project proponent shall provide minimum 2:1 area replacement by restoring 5.46 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero

watersheds to coastal sage scrub communities, or as otherwise agreed to by the appropriate resource agencies and the City. "

The Department recommends approximately 8.2 acres replacement for coastal sage scrub deemed to be occupied by coastal California gnatcatcher.

2. Salvage – The DEIR states that "There would be a net loss of the number of individuals of each species displaced from the area of grading."

a. A biological monitor should be on site during vegetation and ground disturbing activities to salvage wildlife species of low mobility that may be killed or injured by heavy equipment and other project activities. Salvage attempts should include but not be limited for species such as San Diego desert woodrat (*Neotoma lepida intermedia*), American badger (*Taxidea taxus*) and Los Angeles pocket mouse within appropriate habitat.

b. Salvaged wildlife should be relocated onto suitable adjacent undisturbed habitat within the Preserve. Site disturbances should be conducted outside the breeding season for special status species to avoid mortality of dependant young.

Thank you for this opportunity to provide comments. Please contact Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

Edmund Pert
Regional Manager
South Coast Region

cc: Ms. Helen Birss, Los Alamitos
Ms. Terri Dickerson, Laguna Niguel
Ms. Kelly Schmoker, Pasadena
Mr. Scott Harris, Pasadena
Ms. Sarah Rains, Thousand Oaks

State Clearinghouse, Sacramento

See next page for signed signature page

watersheds to coastal sage scrub communities, or as otherwise agreed to by the appropriate resource agencies and the City. "

The Department recommends approximately 8.2 acres replacement for coastal sage scrub deemed to be occupied by coastal California gnatcatcher.

2. Salvage – The DEIR states that "There would be a net loss of the number of individuals of each species displaced from the area of grading."

a. A biological monitor should be on site during vegetation and ground disturbing activities to salvage wildlife species of low mobility that may be killed or injured by heavy equipment and other project activities. Salvage attempts should include but not be limited for species such as San Diego desert woodrat (*Neotoma lepida intermedia),* American badger (*Taxidea taxus)* and Los Angeles pocket mouse within appropriate habitat.

b. Salvaged wildlife should be relocated onto suitable adjacent undisturbed habitat within the Preserve. Site disturbances should be conducted outside the breeding season for special status species to avoid mortality of dependant young.

Thank you for this opportunity to provide comments. Please contact Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

Edmund Pert
Regional Manager
South Coast Region

cc: Ms. Helen Birss, Los Alamitos
Ms. Terri Dickerson, Laguna Niguel
Ms. Kelly Schmoker, Pasadena
Mr. Scott Harris, Pasadena
Ms. Sarah Rains, Thousand Oaks

State Clearinghouse, Sacramento

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401

RECEIVED
JUL 27 2011
Community Development

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

July 22, 2011

Jeff Adams, Planning Services Manager
City of Whittier
Planning Division
13230 Penn Street
Whittier, CA 90602

Dear Mr. Adams:

DRAFT ENVIRONMENTAL IMPACT REPORT, WHITTIER MAIN OILFIELD DEVELOPMENT PROJECT, CONDITIONAL USE PERMIT 09-004, STATE CLEARINGHOUSE (SCH) 2010011049, NORTH OF MAR VISTA STREET AND WEST OF COLIMA ROAD (FFER #201100091)

The Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

4.12 Fire Protection and Emergency Services

Agency Capabilities and Responsibilities

1. Paragraph 2, sentence 3 should be corrected to state, "Table 4.12-1 lists these stations, which are associated with Battalions 8, 12 and 21." CLAFD-1

2. Paragraph 2, sentence 6 should be corrected to state, "The closest County Hazardous Materials (HazMat) team is at Fire Station 43, in the City of Industry, approximately five miles northeast." CLAFD-2

Jeff Adams, Planning Services Manager
July 22, 2011
Page 2

Table 4.12-1

3. The address for Fire Station 15 should be corrected as follows: 11460 Santa Gertrudes Avenue, Whittier, CA. CLAFD-3

4. Fire Station 105 should be deleted from the Table and be replaced with Fire Station 43, which is the closest Hazardous Material station to the project site. Fire Station 43 is located at 921 S. Stimson Avenue, Industry, CA. It is approximately five miles (16 minutes) from the project. CLAFD-4

5. The equipment and staff assigned to the stations listed in Table 4.12-1 are as follows: CLAFD-5

Fire Station/Facility	**Equipment and Staff**
Fire Station 15	4-Person Quint
Fire Station 17	4-Person Engine
Fire Station 28	4-Person Quint, 3-Person Engine, 2-Person Paramedic Squad
Fire Station 43	9-Person HazMat Squad Task Force
Fire Station 59	4-Person Engine
Fire Station 91	4-Person Assessment Engine
Fire Station 96	3-Person Engine

LAND DEVELOPMENT UNIT:

1. The proposed development may necessitate multiple ingress/egress access for the circulation of traffic, and emergency response issues. CLAFD-6

2. The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants. CLAFD-7

3. This property is located within the area described by the Forester and Fire Warden as a Fire Zone 4, Very High Fire Hazard Severity Zone (VHFHSZ). All applicable fire code and ordinance requirements for construction, access, water mains, fire hydrants, fire flows, brush clearance and fuel modification plans, must be met. CLAFD-8

4. Specific fire and life safety requirements for the construction phase will be addressed at the building fire plan check. There may be additional fire and life safety requirements during this time. CLAFD-9

Jeff Adams, Planning Services Manager
July 22, 2011
Page 3

5. Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than the prescribed width. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building. CLAFD-10

6. Access roads shall be maintained with a minimum of ten feet of brush clearance on each side. Fire access roads shall have an unobstructed vertical clearance clear-to-sky with the exception of protected tree species. Protected tree species overhanging fire access roads shall be maintained to provide a vertical clearance of 13 feet 6 inches. CLAFD-11

7. The maximum allowable grade shall not exceed 15% except where topography makes it impractical to keep within such grade. In such cases, an absolute maximum of 20% will be allowed for up to 150 feet in distance. The average maximum allowed grade, including topographical difficulties, shall be no more than 17%. Grade breaks shall not exceed 10% in ten feet. CLAFD-12

8. Fire Department requirements for access, fire flows and hydrants are addressed during the building permit stage. CLAFD-13

9. The development may require fire flows up to 5,000 gallons per minute at 20 pounds per square inch residual pressure for up to a five-hour duration. Final fire flows will be based on the size of buildings, its relationship to other structures, property lines, and types of construction used. CLAFD-14

10. Fire hydrant spacing shall be 300 feet and shall meet the following requirements: CLAFD-15

    a. No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.
    b. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.
    c. Additional hydrants will be required if hydrant spacing exceeds specified distances.
    d. When cul-de-sac depth exceeds 200 feet on a commercial street, hydrants shall be required at the corner and mid block.
    e. A cul-de-sac shall not be more than 500 feet in length, when serving land zoned for commercial use.

11. Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road. A Fire Department approved turning area shall be provided for all driveways exceeding 150 feet in-length and at the end of all cul-de-sacs. CLAFD-16

12. All on-site driveways/roadways shall provide a minimum unobstructed width of 26 feet, clear-to-sky. The on-site driveway is to be within 150 feet of all portions of the exterior walls of the first story of any building. CLAFD-17

Jeff Adams, Planning Services Manager
July 22, 2011
Page 4

13. All access devices and gates shall comply with California Code of Regulations, Title 19, Articles 3.05 and 3.16. CLAFD-18

14. All access devices and gates shall meet the following requirements:

a. Any single gated opening used for ingress and egress shall be a minimum of 26 feet in-width, clear-to-sky.
b. Any divided gate opening (when each gate is used for a single direction of travel i.e., ingress or egress) shall be a minimum width of 20 feet clear-to-sky.
c. Gates and/or control devices shall be positioned a minimum of 50 feet from a public right-of-way, and shall be provided with a turnaround having a minimum of 32 feet of turning radius. If an intercom system is used, the 50 feet shall be measured from the right-of-way to the intercom control device. CLAFD-19
d. All limited access devices shall be of a type approved by the Fire Department.
e. Gate plans shall be submitted to the Fire Department, prior to installation. These plans shall show all locations, widths and details of the proposed gates.

15. Disruptions to water service shall be coordinated with the County of Los Angeles Fire Department and alternate water sources shall be provided for fire protection during such disruptions. CLAFD-20

16. The County of Los Angeles Fire Department, Land Development Unit's comments are only general requirements. Specific fire and life safety requirements will be addressed at the building and fire plan check phase. There may be additional requirements during this time. CLAFD-21

17. A minimum vertical clearance of 13 feet 6 inches may be allowed for protected tree species adjacent to access roads. (FC 503.2.1). CLAFD-22

18. The Development of Whittier Main Oilfield Project shall comply with all applicable city building code and ordinance requirements for construction also shall comply with the Los Angeles County Fire Code, NFPA Guidelines, API Standards and Division of Oil and Gas (DOG) CLAFD-23

19. The statutory responsibilities of the County of Los Angeles Fire Department, Land Development Unit, are the review of, and comment on, all projects within the unincorporated areas of the County of Los Angeles. Our emphasis is on the availability of sufficient water supplies for fire fighting operations and local/regional access issues. However, we review all projects for issues that may have a significant impact on the County of Los Angeles Fire Department. We are responsible for the review of all projects within contract cities (cities that contract with the County of Los Angeles Fire Department for fire protection services). CLAFD-24

We are responsible for all County facilities, located within non-contract cities. The County of Los Angeles Fire Department, Land Development Unit may also comment on conditions that may be imposed on a project by the Fire Prevention Division, which may create a potentially significant impact to the environment.

Jeff Adams, Planning Services Manager
July 22, 2011
Page 5

20. Should any questions arise regarding, water systems, or access, please contact the County of Los Angeles Fire Department, Land Development Unit Inspector, Claudia Soiza, at (323) 890-4243. For any questions regarding the Main Oilfield Project, please contact the County of Los Angeles Fire Department, Petroleum and Chemical Unit Inspector, Thomas Garcia, at (562) 924-4286. The County of Los Angeles Fire Department, Land Development Unit appreciates the opportunity to comment on this project CLAFD-26

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed. CLAFD-27

2. The applicant should incorporate innovative design to reduce or eliminate the impact to the Oak resources. CLAFD-28

3. The loss of Oak tree habitat should be mitigated for pursuant to the provisions of the City's Oak Tree Ordinance. CLAFD-29

4. A fuel management/modification and fire hazard reduction plan should be developed and implemented prior to construction. CLAFD-30

5. Appropriate soil erosion control structures and vegetative cover must be provided to prevent erosion. Plants suited to the climate of the area, including drought tolerant (xeriphytic) species, should be considered. CLAFD-31

HEALTH HAZARDOUS MATERIALS DIVISION:

1. We have no comments at this time.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

JOHN R. TODD, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

JRT:lj

COUNTY OF LOS ANGELES
Public Health

JONATHAN E. FIELDING, M.D., M.P.H.
Director and Health Officer

JONATHAN E. FREEDMAN
Chief Deputy Director

ANGELO J. BELLOMO, REHS
Director of Environmental Health

Bureau of Toxicology & Environmental Assessement
CYRUS RANGAN, M.D., F.A.A.P., A.C.M.T., Director
695 South Vermont Avenue, South Tower-14th Floor
Los Angeles, California 90005
TEL (213) 738-3220 • FAX (213) 252-4503

www.publichealth.lacounty.gov

BOARD OF SUPERVISORS

Gloria Molina
First District

Mark Ridley-Thomas
Second District

Zev Yaroslavsky
Third District

Don Knabe
Fourth District

Michael D. Antonovich
Fifth District

July 18, 2011

Mr. Jeff Adams, Planning Services Manager
Planning Division
Whittier City Hall
13230 Penn Street
Whittier, CA 90602

RE: Comments on the Draft Environmental Impact Report (DEIR) for the Whittier Main Oilfield Development Project

Dear Mr. Adams:

Thank you for the opportunity to comment on the revised DEIR for the Whittier Main Oilfield Development, released June 3, 2011. As you may already know we submitted comments to the first DEIR on December 15, 2011.

CLAPHBTEA-1

Our Toxics-Epidemiology program reviewed all the applicable and available documentation regarding the revised DEIR. Our comments focused on those aspects of the DEIR that relate to the noise element and health implications associated with noise impacts to the area residents. Based on the review of the information presented in the DEIR, we concur that the mitigation measures listed under section 4.5 of the mitigation monitoring plan of the DEIR noise element, should be implemented to reduce noise impacts associated with the project to less than significant. The applicant shall adhere to Los Angeles County Noise Ordinance standards (Title 12) in all jurisdictions.

Cyrus Rangan, M.D., F.A.A.P., A.C.M.T.
Director of Bureau of Toxicology & Environmental Assessment

COUNTY OF LOS ANGELES
Public Health
JONATHAN E. FIELDING, M.D., M.P.H.
Director and Health Officer

JONATHAN E. FREEDMAN
Chief Deputy Director

ANGELO J. BELLOMO, REHS
Director of Environmental Health

KENNETH MURRAY, REHS
Director of Environmental Protection Bureau
5050 Commerce Drive
Baldwin Park, California 91706
TEL (626) 430-5280 • FAX (626) 960-2740

www.publichealth.lacounty.gov

RECEIVED
JUL 15 2011
Community Development

BOARD OF SUPERVISORS

Gloria Molina
First District

Mark Ridley-Thomas
Second District

Zev Yaroslavsky
Third District

Don Knabe
Fourth District

Michael D. Antonovich
Fifth District

July 11, 2011

Mr. Jeff Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, CA 90602

Subject: SCH No. 2010011049 - Draft Environmental Impact Report (DEIR) for the Whittier Main Oil Field Development Project Revised Environmental Impact Report Public Draft

Dear Mr. Adams

The Los Angeles County Department of Public Health, Solid Waste Management Program acting as the Local Enforcement Agency (LEA) appreciates the opportunity to provide comments to the proposed project. The LEA staff has reviewed the above mentioned document and request following comments to be addressed in the Final Environmental Impact Report (FEIR):

1. Executive Summary

CLAPHSWMP-1

A. Page ES-13: The author states that as an alternative oil well development could occur on portions of the landfill that are "clean closed". The term "clean closed" only applies to those facilities that have had all the waste removed and certified clean by the Regional Water Quality Control Board, Los Angeles Region. Partial Clean Closure may be obtained should the landfill operator request and obtain partial clean closure certification from the Regional Water Quality Control Board, Los Angeles Region.

CLAPHSWMP-2

B. Page ES-20: The third bullet only discusses Whittier College and Penn Park as impacting Penn Street. There is no mention of the Savage Canyon Landfill which uses Penn Street as the only access road used by all vehicles accessing the landfill.

2. Environmental Analysis- Public Services and Utilities:

CLAPHSWMP-3

A. Section 4.13.1.2- Solid Waste Disposal: Although this section describes the Savage Canyon landfill and the services it provides to the City of Whittier, there is no mention of where construction and demolition waste or municipal solid waste generated from the project will be disposed of. Other sections of the Draft EIR do state that clean excavated soils generated by the project will be transported to the Savage Canyon landfill for use as daily cover but there is no discussion of the other two wastes identified in this comment.

3. Executive Summary-Traffic Analysis

CLAPHSWMP-4

A. Page ii- The author states that the Phase 2 Project will create a maximum increase of 396 daily vehicle trips. Although this value is consistent with Table 2b of the Project Traffic Section, it is not consistent with Page 15 of the Project Traffic Section which gives 426 vehicle trips as the maximum daily trips. This discrepancy should be clarified.

4. Appendix E Chapter 1-Introduction-Page 5

CLAPHSWMP-5

A. On Page 5 of this section the author states that "the level of activity on site and to and from site will remain relatively steady throughout the life of the project" and that "vehicles with more than two axles or over three tons would use the Penn Street access and North Access road". No explanation has been provided on how this increase in traffic will impact the existing vehicle traffic that accesses the Savage Canyon Landfill during its permitted hours of operation or mitigation measures that would be implemented to ensure that the increased truck traffic through the landfill will not impact landfill vehicle traffic.

5. The Draft EIR discusses the widening of the North Access road to accommodate vehicle traffic that will be accessing the site through the Savage Canyon Landfill.

CLAPHSWMP-6

A. How will the grading activities of the North Access road which is located within the permitted boundary of the landfill affect the final grades of the landfill?

CLAPHSWMP-7

B. Have agencies responsible for approving the final grading plans of the landfill been advised of the proposed grading of the North Access road so as to ensure that any grading done for the road is consistent with the approved final grading plans issued of the landfill?

LEA staff request copies of the Final EIR and any subsequent or revised environmental documents. Any subsequent or revised environmental documents should be circulated through the State Clearinghouse as required in Title 14 California Code of Regulations (CCR) section 15205 (a) of the California Environmental Quality Act (CEQA) Guidelines. The LEA requests notification of the date, time and location of any public hearings regarding the proposed project at least ten days in advance.

If you have any questions, please contact me at (626) 430-5540.

Sincerely,

Gerry Villalobos

Gerry Villalobos, REHS
Environmental Health Specialist IV
Solid Waste Management Program, LEA
Los Angeles County Department of Public Health

c: Susan Markie, CalRecycle
Lorna Villa, LEA

City of La Habra

"A Caring Community"

ADMINISTRATIVE BUILDING

201 E. La Habra Boulevard
Post Office Box 337
La Habra, CA 90633-0785
Office: (562) 905-9701
Fax: (562) 905-9781

June 28, 2011

Mr. Jeff Adams
Planning Services Manager
City of Whittier
13230 Penn Street
Whittier, California 90602

RECEIVED
JUN 30 2011
Community Development

Re: Notice of Availability of the Draft Environmental Impact Report
Whittier Main Oilfield Development Project: CUP 09-004; State Clearinghouse (SCH) 2010011049

Dear Mr. Adams,

Thank you for the opportunity to review the Notice of Availability and the draft Environmental Impact Report for the project known as the "Whittier Main Oilfield Development Project". As you are aware, CEQA allows potentially affected agencies to comment on proposed projects that may cause significant environmental impacts to their community. Given the nature of the project, the following is our concern and comment:

The NOP indicated that the EIR will assess traffic related impacts due to construction activity and the project truck transportation routes. We had concerns regarding potential truck circulation impacts on roadways in La Habra and that the EIR should address these concerns. We indicated that truck traffic should be conditioned to utilize the roadway system within the City of Whittier and the 605 and 60 freeways, which would eliminate the impact to La Habra.

The draft EIR indicated that truck routes would most likely travel along Mar Vista Street to Colima Road, equally dispersing north and south along Colima Road, where they would travel north to Highway 60 or south to Whittier Boulevard to Interstate 605. However, these project truck routes were not indicated as a mitigation measure or as a project condition. Therefore, we reiterate that the project truck traffic should be conditioned to utilize the roadway system within the City of Whittier and the 605 and 60 freeways, which would eliminate the impact to La Habra. CLH-1

We are prepared to assist you in addressing the above concern. We would request that any revisions to the draft Environmental Impact Report be forwarded

Mr. Adams
6/28/11
Page 2

to the City of La Habra for review and comment. Additional comments may be generated based on that review.

If you should have any questions, please feel free to contact me at (562) 905-9724.

Sincerely,

Carlos Jaramillo
Deputy Director of Community Development

cc: Don Hannah, City Manager
Jennifer Cervantez, Assistant City Manager
Michael Haack, Director of Community Development

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

July 20, 2011

File No: 18-00.04-00

Mr. Jeffrey Adams
Planning Services Manager
Planning Division
City of Whittier
13230 Penn Street
Whittier, CA 90602-1772

Dear Mr. Adams:

Whittier Main Oil Field Development Project

The County Sanitation Districts of Los Angeles County (Districts) received a Draft Environmental Impact Report for the subject project on June 6, 2011. The proposed development is located within the jurisdictional boundaries of District No. 18. We offer the following comments regarding sewerage service:

1. Previous comments submitted by the Districts in correspondence dated February 26, 2010 (copy enclosed), still apply to the subject project with the following updated information.

CSDLAC-1 2. The Los Coyotes Water Reclamation Plant has a design capacity of 37.5 million gallons per day and currently processes an average flow of 20.8 mgd.

CSDLAC-2 3. The Districts consists of 23 independent special districts.

4. All other information concerning Districts' facilities and sewerage service contained in the document is current.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

Enclosure

RECEIVED
JUL 20 2011
PLANNING DEPT.

Doc #: 1979211.1

Recycled Paper

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

February 26, 2010

File No: 18-00.04-00

Mr. Jeffrey Adams, Planning Services Manager
Community Development
13230 Penn Street
Whittier, CA 90602

Dear Mr. Adams:

Whittier Main Oil Field Development Project

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on January 22, 2010. The proposed development is located within the jurisdictional boundaries of District No. 18. We offer the following comments regarding sewerage service:

CSDLAC-3

1. The proposed project may impact existing and/or proposed Districts' trunk sewers over which it will be constructed. Existing and proposed Districts' trunk sewers are located directly under and/or cross directly beneath the proposed project alignment. The Districts cannot issue a detailed response to or permit construction of the proposed project until project plans and specifications that incorporate Districts' sewer lines are submitted. In order to prepare these plans, you will need to submit a map of the proposed project alignment, when available, to the attention of Ms. Martha Tremblay of the Districts' Sewer Design Section at the address shown above. The Districts will then provide you with the plans for all Districts' facilities that will be impacted by the proposed project. Then, when revised plans that incorporate our sewers have been prepared, please submit copies of the same for our review and comment.

CSDLAC-4

2. In order to estimate the volume of wastewater the project will generate, a copy of the Districts' average wastewater generation factor is available online. Go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2.

CSDLAC-5

3. The wastewater generated by the proposed project will be treated at the Los Coyotes Water Reclamation Plant located in the City of Cerritos, which has a design capacity of 37.5 mgd and currently processes an average flow of 26.8 mgd.

CSDLAC-6

4. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is

issued. For a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

CSDLAC-7

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin

E-Signed by Adriana Raz
VERIFY authenticity with Approv

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

c: M Tremblay

DEPARTMENT OF CONSERVATION

Managing California's Working Lands

Division of Oil, Gas, & Geothermal Resources

5816 CORPORATE AVENUE • SUITE 200 • CYPRESS, CALIFORNIA 90630-4731

PHONE 714 / 816-6847 • **FAX** 714 / 816-6853 • **WEB SITE** conservation.ca.gov

July 21, 2011

Mr. Jeffery Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, CA 90602

Subject: Draft Environmental Impact Report for the Whittier Main Oil Field Development Project –SCH# 2010011049

Dear Mr. Adams:

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced project. We offer the following comments for your consideration.

The proposed project is located within the administrative boundaries of the Whittier oil field. There are currently numerous active, idle, and plugged and abandoned wells within the project boundaries. These wells are identified on Division map 104 and records. The Division recommends that all future drill sites, oil production facilities and existing wells within or in close proximity to project boundaries be accurately plotted on future project maps.

The Division is mandated by Section 3106 of the Public Resources Code (PRC) to supervise the drilling, operation, maintenance, and plugging and abandonment of wells for the purpose of preventing: (1) damage to life, health, property, and natural resources; (2) damage to underground and surface waters suitable for irrigation or domestic use; (3) loss of oil, gas, or reservoir energy; and (4) damage to oil and gas deposits by infiltrating water and other causes. Furthermore, the PRC vests in the State Oil and Gas Supervisor (Supervisor) the authority to regulate the manner of drilling, operation, maintenance, and abandonment of oil and gas wells and associated pipelines and processing facilities as to conserve, protect, and prevent waste of these resources, while at the same time encouraging operators to apply viable methods for the purpose of increasing the ultimate recovery of oil and gas.

The scope and content of information that is germane to the Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code (PRC), and administrative regulations under Title 14, Division 2, Chapter 4 of the California Code of Regulations. New, revised regulations for oilfield facilities that came into effect in 2011 can be found in Subchapter 2. **Environmental Protection**.

Written approval from the Supervisor is required prior to changing the physical condition of any well. The operator's notice of intent (notice) to perform any well operation is reviewed on engineering and geological bases. For new wells and the altering of existing wells, approval of the proposal depends primarily on the following: protecting all subsurface hydrocarbons and fresh waters; protection of the environment; using adequate blowout prevention equipment; and utilizing approved drilling and cementing techniques. DOGGR-1

The Division must be notified to witness or inspect all operations specified in the approval of any notice. This includes tests and inspections of blowout-prevention equipment, reservoir and freshwater protection measures, and well-plugging operations. DOGGR-2

In addition, the operator must have a bond on file with the Division before certain well operations are allowed to begin. The purpose of the bond is to secure the State against any expenses that the State may incur in obtaining operator compliance with applicable laws, regulations, and orders of the Supervisor. The operator must also designate an agent, residing in the state, to receive and accept service of all orders, notices, and processes of the Supervisor or any court of law. DOGGR-3

The Division recommends that adequate safety measures be taken by the developer to prevent people from gaining unauthorized entry to oilfield equipment. For public safety, it is recommended that all wells and associated equipment within the project site be enclosed by an eight-foot block wall, with barbed wire on the inside at the seven-foot level. Suitable secure gates should be provided which are capable of allowing large workover equipment access into the well sites. The grade within the enclosed areas should be constructed so that potential spillage will be confined to the enclosure. Safety shut-down devices on wells and other oilfield equipment must be considered when appropriate. To restrict access, the Department recommends that the placement of climbable landscaping around the perimeter of the oilfield facility be avoided. DOGGR-4

Building over or in the proximity of plugged and abandoned wells should be avoided if at all possible. If this is not possible, it may be necessary to plug or re-plug wells to current Division specifications. Also, the State Oil and Gas Supervisor is authorized to order the reabandonment of previously plugged and abandoned wells when construction over or in the proximity of wells could result in a hazard (Section 3208.1 of the Public Resources Code). If reabandonment is necessary, the cost of operations is the responsibility of the owner of the property upon which the structure will be located. Finally, if construction over an abandoned well is unavoidable an adequate gas venting system should be placed over the well. DOGGR-5

Furthermore, if any plugged and abandoned or unrecorded wells are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division's district office must be contacted to obtain information on the requirements for and approval to perform remedial operations. DOGGR-6

Developers should contact the Division's Cypress district office regarding siting questions in proximity to abandoned wells. The planning department should verify that final building plans have undergone Division review prior to the start of construction. DOGGR-7

No building intended for human occupancy should be located near any active well unless suitable safety and fire protection measures are approved by the Fire Department or Agency responsible for such approval. Periodic maintenance of the active wells will be an ongoing activity; proposed development should ensure that adequate access is maintained to all tank settings and well locations. Access must be sufficient to allow for the entry and operation of heavy equipment and drilling/workover rigs with masts at well sites DOGGR-8

Thank you for the opportunity to comment on the DEIR. If you have questions on our comments, or require technical assistance or information, please call me at the Cypress district office: 5816 Corporate Avenue, Suite 200, Cypress, CA 90630-4731; phone (714) 816-6847.

Sincerely,

Anneliese Anderle

Anneliese Anderle
Associate Oil & Gas Engineer
Division of Oil, Gas and Geothermal Resources
District 1

cc: Tain-Ting Shih – Division Headquarters - Sacramento

Natural Resources Agency
Arnold Schwarzenegger, Governor

CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

801 K STREET, MS 19-01, SACRAMENTO, CALIFORNIA 95814• (916) 322-4027 • WWW.CALRECYCLE.CA.GOV

July 21, 2011

RECEIVED
JUL 21 2011
STATE CLEARING HOUSE

Mr. Jeff Adams
Jadams@cityofwhittier.org
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602

Subject: **SCH No. 2010011049** - Draft Environmental Impact Report for the Matrix Whittier Main Oil Field, Los Angeles County

Dear Mr. Adams:

Thank you for allowing the Department of Resources Recycling and Recovery (CalRecycle) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

CalRecycle staff has reviewed the environmental document cited above and offer the following project description, analysis, and our recommendations for the proposed project based on CalRecycle staff's understanding of the project. If CalRecycle's project description varies substantially from the project as understood by the Lead Agency, CalRecycle staff requests notification of any significant differences before adoption of this Environmental Impact Report and approval of the project. Significant differences in the project description could qualify as "significant new information" about the project that would require recirculation of the document before adoption pursuant to CEQA Section 15088.5.

Project Description

The proposed Whittier Main Oil Field Development Project (project) would involve drilling wells and producing oil and gas from the project site, which is approximately seven acres of property, owned by the City of Whittier and a part of the Puente Hills Landfill Native Habitat Preserve (Preserve). The project site is approximately two miles southeast of the Savage Canyon Landfill, and six miles south of the Puente Hills landfill.

ORIGINAL PRINTED ON 100 % POST-CONSUMER CONTENT, PROCESSED CHLORINE FREE PAPER

The project would consist of a single pad with wells, an oil processing plant, a gas plant, and an oil-truck loading facility. The project would involve three development phases: the Drilling and Testing Phase, the Design and Construction Phase, and the Operations and Maintenance Phase. A total of 60 drilling wells are expected to be placed within the project site.

Site access would be from the Catalina Avenue north of Mar Vista Street and the North Access Road that would pass through the Savage Canyon Landfill before connecting to Penn Street. Vehicles with more than two axles or over 3 tons, or vehicles towing trailers, would use the Penn Street entrance and the North Access Road to access the project site.

The following areas were identified as having significant and unavoidable impacts: air quality, hydrology, and land use and recreation.

Comments

For clarity and convenience, questions and comments that CalRecycle staff is seeking a specific response will be italicized so the reader can easily locate and respond to them

Traffic and Circulation

The proposed Penn Street Traffic Program would reduce impacts to less than significant by limiting peak construction traffic and improving Penn Street. *Will the project traffic through the Penn Street – North Access Road impact the traffic circulation and operations of the Savage Canyon Landfill?*

Savage Canyon Landfill's Report of Disposal Site Information

Please refer to Title 14, California Code of Regulations, Section 21620, which states that any operational and design changes (associated to the Savage Canyon Landfill) must be presented to the Los Angeles County, Department of Public Health, acting as the Local Enforcement Agency, for their review and approval at least 180 days prior to implementation. Please work closely with your LEA contact, Gerardo Villalobos/626.430.5540, as well as the landfill operator in order to comply with regulatory requirements.

Summary

CalRecycle staff thanks the Lead Agency for the opportunity to review and comment on the environmental document and hopes that this comment letter will be useful to the Lead Agency in carrying out their responsibilities in the CEQA process.

If you have any questions regarding these comments, please contact Martin Perez at 951.782.4168 or by email at Martin.Perez@calrecycle.ca.gov.

Note: *All correspondence related to this letter and for staff of the Permitting and Assistance Branch should be sent 1001 I Street – MS 10A-15, P.O. Box 4025, Sacramento, CA 95812-4025.*

Sincerely,

Martin Perez
Permitting & Assistance Branch
Permits & Certification Division

cc: Virginia Rosales, Supervisor
Permitting & Assistance Branch
Permits & Certification Division

Susan Markie, Manager
Permitting & Assistance Branch
Permits & Certification Division

Gerardo Villalobos
Los Angeles County
Department of Public Health
GVillalobos@ph.lacounty.gov

David A. Pelser, Operator
Department of Public Works
City of Whittier
DPelser@cityofwhittier.org

LOS ANGELES COUNTY REGIONAL PARK AND OPEN SPACE DISTRICT

July 21, 2011 Sent via e-mail: jadams@cityofwhittier.org

Mr. Jeffery Adams
Planning Services Manager
City of Whittier
13230 Penn Street
Whittier, California 90602

Dear Mr. Adams:

CITY OF WHITTIER MAIN OIL FIELD DEVELOPMENT PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT
COMMENT LETTER

Thank you for the opportunity for the Los Angeles County Regional Park and Open Space District (District) to respond to the City of Whittier's (City's) updated Draft Environmental Impact Report (EIR) dated June 2011, which addresses the proposed Whittier Main Oil Field Development Project (proposed project). The District understands that Matrix, the project applicant, amended its Conditional Use Permit (CUP) application for the proposed project to reflect the Environmentally Superior Alternative identified in the October 2010 Draft EIR, and prepared an updated Draft EIR in June 2011. Although the District acknowledges the effort to provide an updated project based on the City's defined Environmentally Superior Alternative and observes that the updated Draft EIR incorporates some responses to previous District concerns, additional comments and concerns remain, as addressed in this letter.

BACKGROUND ON PROPOSITION A

The District provides the following background from its previous letter to highlight the establishment, purpose, and restrictions on use of funds and lands acquired as a result of the approval of Proposition A in 1992 and 1996.

> The District is providing these comments in its capacity as a Responsible Agency, as defined by the California Environmental Quality Act (CEQA). The District was created with the approval of the Safe Neighborhood Parks Proposition A (1992 Proposition) in the November 3, 1992, General Election. The 1992 Proposition authorized an annual assessment of nearly all of the then

nearly all 2.25 million parcels of real property in the County of Los Angeles (County). The 1992 Proposition allotted $540 million for the acquisition, restoration, or rehabilitation of real property for parks and park safety, senior recreation facilities, gang prevention, beaches, recreation, community or cultural facilities, trails, wildlife habitats, or natural lands, and funded maintenance and servicing of those projects.[1] In 1996, voters of the County approved another Safe Neighborhood Parks Proposition A (1996 Proposition) to fund an additional $319 million of parks and recreation projects and additional funds for maintenance and servicing of those projects.[2] Collectively, the two propositions are known as Proposition A.

The land under consideration for development was purchased by the City using grant monies authorized pursuant to the 1992 Proposition, specifically, $9.3 million allocated to the City of Whittier for acquisition of natural lands and development of related facilities in the Whittier Hills.[3] Further, as part of the $40 million allocated under the 1992 Proposition to the Santa Monica Mountains Conservancy for the acquisition of park and open space land:

> ...not less than seven million dollars ($7,000,000) shall be expended in the Whittier Hills; prior to the expenditure of such funds the Conservancy shall enter into a joint powers agreement with the City of Whittier in order to facilitate the preservation of park and open space lands.[4]

In 1996, County voters approved the 1996 Proposition, providing an additional $2.5 million to the City to acquire natural lands within the Whittier Hills Wilderness Area to preserve wildlife, preserve natural lands, and provide public access and trails. The funds were to be expended by the Whittier-Puente Hills Conservation Authority.

In 2008, the City leased 1,290 acres within the Whittier Hills to Matrix Oil Corporation for development of an oil field subject to environmental analysis pursuant to CEQA. The City released a Draft EIR for public review that analyzes the development of 7 acres within the Whittier Hills Wilderness Area as an oil

---

[1] Los Angeles County Regional Park and Open Space District. Accessed on: 5 November 2010. Available at: http://openspacedistrict.lacounty.info/cms1_033119.asp

[2] Los Angeles County Regional Park and Open Space District. Accessed on: 5 November 2010. Available at: http://openspacedistrict.lacounty.info/cms1_033119.asp

[3] County of Los Angeles. Accessed on: 5 November 2010. 1992 Proposition. Available at: http://openspacedistrict.lacounty.info/cms1_033687.pdf

[4] County of Los Angeles. Accessed on: 5 November 2010. 1992 Proposition. Available at: http://openspacedistrict.lacounty.info/cms1_033687.pdf

field. However, the proposed project, for the purposes of the EIR, needs to consider the potential impacts of the lease agreement with Matrix Oil Corporation that would open 1,290 acres of the Whittier Hills Wilderness Area to mining, oil, and natural gas extraction and related activities. The District was constrained in its ability to review the Draft EIR based on Section 15002(h) of the State CEQA Guidelines, which states:

> CEQA requires more than merely preparing environmental documents. The EIR by itself does not control the way in which a project can be built or carried out. Rather, when an EIR shows that a project would cause a substantial adverse change in the environment, the governmental agency must respond to the information.

Since the updated Draft EIR erroneously limits the scope of analysis to the direct impacts of the oil field site and associated staging areas rather than the direct, indirect, and cumulative impacts of all activities that could result from the lease, the District has insufficient information to determine the full extent to which the original intended purpose of the park and open space lands for preservation of wildlife and natural lands has been compromised. In addition, the updated Draft EIR for the proposed project, dated June 2011, contains inconsistencies and potential inadequacies in its analysis of impacts to the issue areas listed in Appendix G to the State CEQA Guidelines.

Oil field development and appurtenant transmission and operations and maintenance activities would be incompatible with the specified use of lands acquired with Proposition A grant monies, and would constitute a partial disposal of the property that would be required to conform to procedures set forth in Proposition A (as approved by the voters of Los Angeles County), the project Grant Agreement and the District's *Procedural Guide for the Specified Project, and the Per Parcel Discretionary and Excess Funds Grant Programs*; these documents are hereafter referred to collectively as Proposition A for the purposes of this letter. As indicated in Appendix G to the State CEQA Guidelines, such an action constitutes a significant adverse impact related to land use that is required to be disclosed to the public and to the City of Whittier Planning Commission and City Council for their consideration in the land use decision-making process. The District's comments are expressly provided in their capacity as a Responsible Agency whose mission requires the appropriate granting, administration, and monitoring of grant monies provided pursuant to Proposition A to ensure that the specified goals approved by the voters of the County of Los Angeles are achieved, specifically in this case, the preservation, restoration, and rehabilitation of real property to serve as wildlife habitat and natural habitats and to provide public access and trails.

Mr. Jeffery Adams
June 21, 2011
Page 4

INTRODUCTION TO THE DISTRICT'S COMMENTS

The District believes that the City and the applicant, Matrix Oil Corporation, have still come short of full compliance with CEQA in the design of the proposed project and meaningful mitigation measures and project alternatives. Staff from the Los Angeles County Department of Parks and Recreation met with representatives of the City at the proposed project site on May 4, 2011, to tour the property and discuss the size and plan of operation of the proposed project as revised, the potential impacts of the proposed project, and the issue of maintaining the value of the Puente Hills Landfill Native Habitat Preserve. The District also sent a representative to the City's Notice of Preparation (NOP) Scoping Meeting on May 5, 2011 and the Public Comment Meeting on July 11, 2011. However, the District still recommends that the City and the project applicant convene a working group with representatives of the U.S. Army Corp of Engineers (USACOE); the U.S. Fish and Wildlife Service (USFWS); the California Department of Fish and Game (CDFG); the Department of Oil, Gas and Geothermal Resources (DOGGR); and the District to identify development scenarios while minimizing environmental impacts.

The District has organized and presented its comments, in accordance with the organization of the June 2011 updated Draft EIR, and respectfully requests the continued opportunity to meet with the City and the project applicant to identify opportunities for avoiding, reducing, and compensating for the direct, indirect, and cumulative effects of the proposed project.

DISTRICT COMMENTS

EXECUTIVE SUMMARY

Pursuant to Section 15123 of the State CEQA Guidelines, an EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical.

The State CEQA Guidelines state that the summary shall identify the following:

1. Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect
2. Areas of controversy known to the Lead Agency including issues raised by agencies and the public
3. Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects

Mr. Jeffery Adams
June 21, 2011
Page 5

Although the District acknowledges the effort to address the CEQA Guidelines defined above, and observes that the updated Draft EIR executive summary incorporates some responses to these guidelines, some additional comments and concerns remain and are described below.

Proposed Project Environmental Impacts and Mitigation (Pages ES-7 to ES-12)

The executive summary section of the updated Draft EIR appears to adequately summarize the potential project impacts described in the impact sections of the document. However, the District finds that the updated Draft EIR does not adequately evaluate the resources likely to be impacted by the proposed project. As required pursuant to Section 15126.2(a)(b)(c)(d) of the State CEQA Guidelines, direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving the due consideration to both the short-term and long-term effects, as well as significant environmental effects that cannot be avoided if the proposed project is implemented. The State CEQA Guidelines also require that significant irreversible environmental changes, as well as growth-inducing impacts, resulting from the proposed project be evaluated. Section 7.0 of the updated Draft EIR evaluates these criteria, but the executive summary does not incorporate this evaluation. The executive summary should more clearly describe both the direct, and indirect, and short-term, and long-term effects of the proposed project.

LACRPOSD-1

As required by the State CEQA Guidelines, the EIR needs to consider mitigation measures that are capable of avoiding, minimizing impacts that would result from the proposed project alternatives. In addition, the EIR must consider alternatives capable of meeting most of the basic objectives of the proposed project and avoiding significant impacts. Specifically, the EIR needs to consider placing and developing the oil field outside of the Puente Hills Landfill Native Habitat Preserve as an alternative to the proposed project. As stated in the updated Draft EIR, impacts to air quality, aesthetics, hydrology, land use, and recreation would remain significant and unavoidable, which alternatives should avoid.[5] At a minimum, additional mitigation measures need to be explored to remove some or all of these potentially significant impacts.

Comparison of Proposed Project and Alternatives (Pages ES-16 to ES-20)

Pursuant to Section 15126.6(a) of the State CEQA Guidelines, the updated Draft EIR is required to identify a range of reasonable and feasible alternatives to identify ways to mitigate or avoid the significant effects that a proposed project may have on the environment. The executive summary should list all reasonable and feasible alternatives

LACRPOSD-2

[5] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft*, p. ES-7.

to the proposed project. The updated Draft EIR is required to clarify differences in significant unavoidable impacts between the proposed project and project alternatives. Table ES-1 should clarify the proposed alternatives, including the No Project Alternative, Savage Canyon Landfill Site Alternative, and Loop Road Access Alternative, and Lambert Railroad Right-of-Way Alignment Alternative.

SECTION 1.0 INTRODUCTION

Purpose of the CEQA Process and Required Findings, Including Proposition A

The introduction should state that the District is a Responsible Agency pursuant to CEQA. Consistent with the provisions of Section 15096 of the State CEQA Guidelines, the District will make a determination that the EIR is technically and procedurally adequate before relying upon the EIR to support the District's decision-making process with respect to the ultimate disposition of lands purchased under Proposition A.

The District was created with the approval of the 1992 Proposition, which authorized an annual assessment on nearly all of the then 2.25 million parcels of real property in the County. The 1992 Proposition funded $540 million for the acquisition, restoration, or rehabilitation of real property for parks and park safety, senior recreation facilities, gang prevention, beaches, recreation, community or cultural facilities, trails, wildlife habitats, or natural lands, and funded maintenance and servicing of those projects.[6] The land under consideration for development was purchased by the City using grant monies authorized pursuant to the 1992 Proposition.[7] Additional funds were allocated under the 1992 Proposition to the Santa Monica Mountains Conservancy for the acquisition of park and open space land. County voters approved the 1996 Proposition to provide additional funding for the acquisition of natural lands within the Whittier Hills Wilderness Area, allocate an additional $319 million for parks and recreation projects, and provide additional funds for maintenance and servicing of those projects.[8] Collectively, the two propositions are known as Proposition A. In 2008, the City leased 1,290 acres within the Whittier Hills to Matrix Oil Corporation for development of an oil field subject to environmental analysis pursuant to CEQA. LACRPOSD-3

Oil field development and appurtenant transmission and operations and maintenance activities would be incompatible with the specified use of lands acquired with Proposition A grant monies, and would constitute a partial disposal of the property that

[6] Los Angeles County Regional Park and Open Space District. Accessed on: 5 November 2010. Available at: http://openspacedistrict.lacounty.info/cms1_033119.asp

[7] County of Los Angeles. Accessed on: 5 November 2010. 1992 Proposition. Available at: http://openspacedistrict.lacounty.info/cms1_033687.pdf

[8] Los Angeles County Regional Park and Open Space District. Accessed on: 5 November 2010. Available at: http://openspacedistrict.lacounty.info/cms1_033119.asp

would be required to conform to procedures set forth in Proposition A. As indicated in Appendix G to the State CEQA Guidelines, such an action constitutes a significant adverse impact to land use that is required to be disclosed to the public and to the City Planning Commission and City Council for their consideration in the land use decision-making process.

Table and Figure Comments

Table 1-1 must be corrected to include the District as a Responsible Agency. The table should note the need for the project to conform to the specifications of Proposition A. Figure 1-1 needs to have a legend added to explain the meaning of the red and blue highlighted areas. LACRPOSD-4

Clarification of the District's Role as Responsible Agency

The County is indicated as "a Responsible Agency that will use the EIR for decision-making regarding approval of the portion of the oil pipeline proposed within unincorporated areas of the County, namely, the pipeline segment from the intersection of Colima Road and Lambert Road to the intersection of La Mirada Boulevard and Leffingwell Road." The updated Draft EIR introduction section should be corrected to explain that, beyond this statement, Proposition A requires the City to obtain the consent of the District for proposed uses or development of the land for anything other than open space or recreational use. As such, the District is a Responsible Agency for the entire proposed project and not for "the pipeline segment from the intersection of Colima Road and Lambert Road to the intersection of La Mirada Boulevard and Leffingwell Road." LACRPOSD-5

SECTION 2.0 PROJECT DESCRIPTION

The District understands that Matrix, the project applicant, amended its Conditional Use Permit (CUP) application to modify the proposed project to reflect the Environmentally Superior Alternative identified in the October 2010 Draft EIR and prepared a revised June 2011 updated Draft EIR. The District's comments reflect the updated project description contained in the June 2011 updated Draft EIR.

Comments

Section 15126 of the State of CEQA Guidelines requires that project description include the precise location and boundaries of the proposed project on a detailed map with topographic information. Figure 2-7 shows contours and topographic information, but this figure only shows proposed project site pad equipment arrangement and not

precise location and boundaries of the proposed project pursuant to State CEQA Guidelines Section 15126.

Based on a review of Figures 2-2, 2-5, 2-6, 2-7, 2-8, and 2-9, the lands proposed for development within the limits of the Puente Hills Landfill Native Habitat Preserve were purchased with funds from Proposition A.

Areas of Impact and Requirements with the Use of Proposition A Funds

The updated Draft EIR states:

> The majority of the land encompassing the oil field was purchased from Chevron and Unocal Corporation by the City of Whittier. The City's purchase of the Whittier Main Oilfield was funded by a grant of Proposition A funds. Conditions of this funding require the City to obtain the consent of the Los Angeles County Regional Park and Open Space District (the District) for proposed uses or development of the land for anything other than open space or recreational use. In order to use the proposed surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the area used or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.[9] LACRPOSD-5

As the conditions of Proposition A funds require the City to obtain the consent of the District for uses or development of the land for anything other than open space or recreational use, the District is a Responsible Agency pursuant to CEQA.

The updated Draft EIR further states:

> The land is currently managed for the City by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority), a joint powers agency whose members include the City of Whittier, County of Los Angeles, the Hacienda Heights Improvement Association and Los Angeles County Sanitation Districts. On October 28, 2008, the City awarded a lease to Matrix Oil Corporation (Matrix) that could permit resumption of oil and gas extraction from the site. The agreement leases the City's mineral LACRPOSD-6

[9] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* p. 2-1.

> rights underlying the Whittier Main Field to Matrix and provides that, subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land. In exchange for these rights, the Project could generate a substantial long-term income stream for the City and for the preservation and enhancement of the Preserve's ecological resources and native habitat. [10]

The City owns approximately 1,290 acres of the 3,869-acre nature preserve and the associated mineral rights, and has zoned all City areas of the preserve as open space.[11] The proposed project intends to directly convert approximately 15.2 acres of the preserve to oil field activities, as identified in Table 2-3 in of the updated Draft EIR.[12] The updated Draft EIR states, "The total impacted area associated with pads, roads, potential fuel modification zones (FMZ), and construction-related temporarily disturbed areas would be 30.6 acres (9.0 of these acres are designated as previously disturbed by the Habitat Authority)," which includes the 15.2 acres of proposed oil field.[13]

The land use intended by the proposed project is inconsistent with the existing land use as open space and the provisions of the 1992 Proposition, as described in comments on the land use section of the updated Draft EIR.

The project description states that the proposed project would involve drilling wells and production of oil and gas from the proposed project site, would convert approximately 15.2 acres of the nature preserve to oil field activities, and would temporarily impact 30.6 acres of property owned by the City that is part of the nature preserve. Given the varied terrain and the need for limited grades for trucks travelling to and from the proposed project site, substantially more grading than assumed in the updated Draft EIR may be required. The project description should be updated to include 30 percent engineering drawings at sufficient detail to demonstrate the extent of the grading that would need to be undertaken to improve the road sufficiently to accommodate heavy equipment. It appears the proposed project and all of the proposed project alternatives would use significantly more area due to the development of access roads and right-of-ways for underground pipelines needed for transmission of oil and gas, electricity, and sewage and water. These impact areas should be quantified so that associated impacts can be determined and appropriate alternatives or mitigation measures explored. LACRPOSD-7

[10] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft*, p. 2-1.

[11] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft*, p. 2-1.

[12] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft*, p. 2-18.

[13] City of Whittier. June 2011. Table 2-3. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft*, p. 2-13.

Mr. Jeffery Adams
June 21, 2011
Page 10

The pipeline construction within the County unincorporated land would result in significant impacts within 250 feet of the construction area.[14] The construction of the remainder of the proposed project, which is located within the City, would potentially result in impacts when (1) within 450 feet of a neighborhood park; (2) within 800 feet of a school; (3) or within 1,420 feet of a residence.[15] As a result, the total acreage of the impacted area could potentially be as much as 855 acres (Figure PD-1, *Total Acreage of Potentially Impacted Area*). LACRPOSD-8

Regarding the lease agreement, the City leased the entire 1,290 acres to Matrix Oil. The lease indicates that Matrix Oil can ask for additional drill sites. There is no cap on the amount of drill sites. Section 6.6 of the lease states:

> In the event that Lessee has drilled six wells on the Leased Lands, then Lessee shall have the right to request from Lessor one or more additional drill sites, subject to Lessee applying for and obtaining a Conditional Use Permit and obtaining a release of any such additional sites from protected area status from the Los Angeles County Proposition A District. Lessor may in its sole discretion, and for any reason, deny or grant Lessee the right to construct any such additional sites.[16] LACRPOSD-9

During the drilling and testing phase, the proposed project site would be accessed through the Avenue Preserve gate via Mar Vista Street. The EIR states, "truck routes would most likely travel along Mar Vista Street to Colima Road, equally dispersing north and south along Colima Road." Please explain how project traffic can be guaranteed to use both routes equally. LACRPOSD-10

More description is needed regarding the alignment, stabilization, and widening of roadways to address the increase in impact areas that would result from the roadway improvements and to address the potential impacts to air quality, noise, and safety and increase in vehicular and truck trips that would result from the improved roadway. The analysis in an EIR must be based upon the project description. Without added explanation describing the extent of the roadway infrastructure and explaining how stabilization will occur, the analysis sections of the updated Draft EIR may be inadequate and based on insufficient information. If that information is contained in the LACRPOSD-11

[14] County of Los Angeles. 1978. *Noise Control Ordinance of the County of Los Angeles*. Ordinance 11778, Section 2 (Article 1, Section 101); Ordinance 11773, Section 2 (Article 1, Section 101). Chapter 12.08. Available at: http://ordlink.com/codes/lacounty/index.htm

[15] City of Whittier. Adopted 1993. *City of Whittier General Plan*. Whittier, CA.

[16] City of Whittier. 28 October 2008. City of Whittier Agenda Report. Available at: http://www.cityofwhittier.org/pdfs/Mineral-Info/Mineral-Info-AgendaReport.pdf

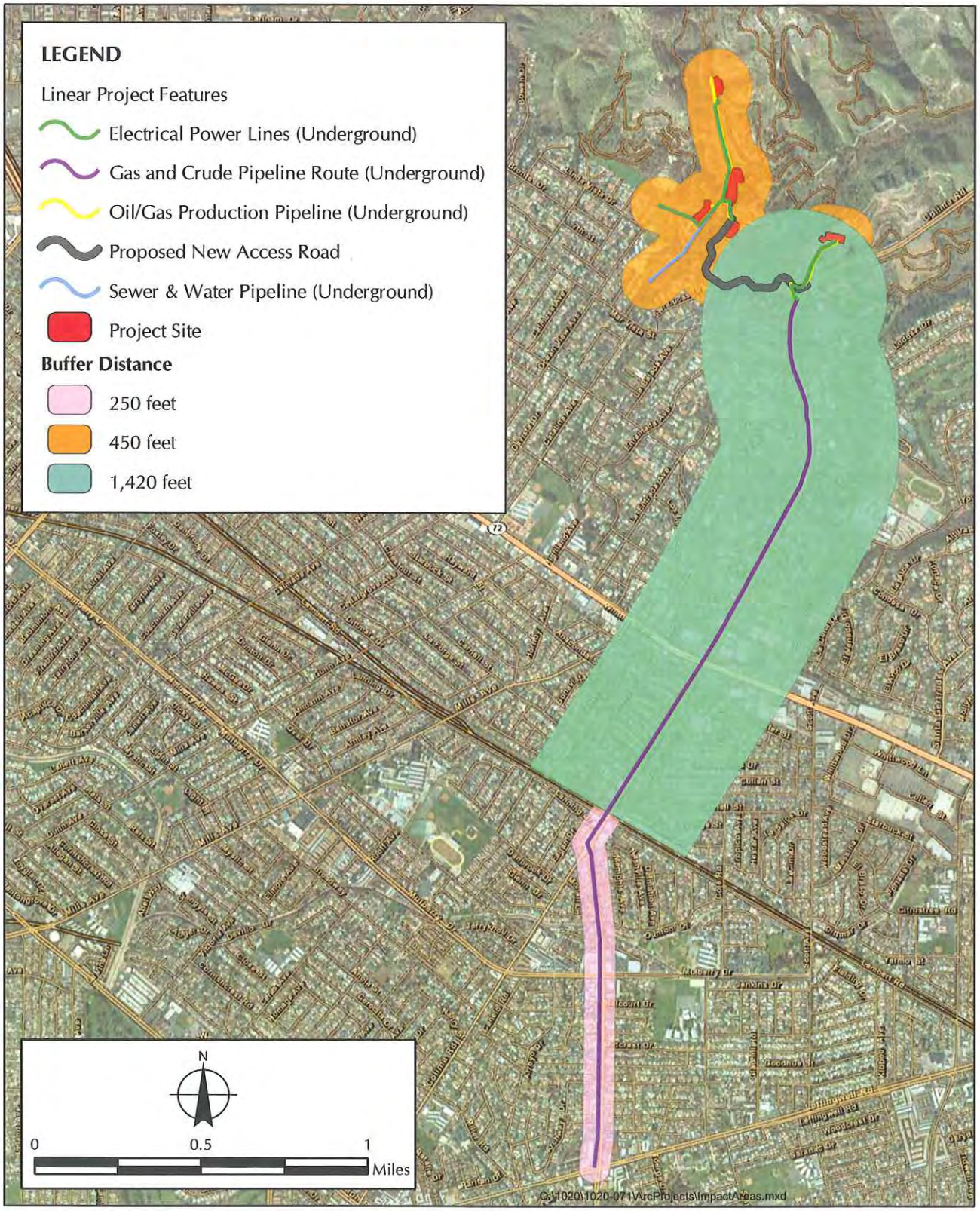


FIGURE PD-1

Total Acreage of Potentially Impacted Area

individual analysis sections, it should be brought forward to the project description so that the reader can have a full understanding of all components of the proposed project.

In Section 2.3.2.1, please define the data for the equipment delivery trips and the number of estimated construction workers present during testing. Only Table 2-6 lists a source. In Section 2.3.2.2, please cite a source for the estimated time for grading activities, well testing, and monitoring. In Section 2.3.3.2, please cite a source for the data provided (i.e., average water usage of 2,000 gallon per day; amount of soil needed for grading, etc.). In Section 2.3.3.3, the last paragraph in the section states, "The access roads...would be designed in accordance with LACoFD requirements (see Figure 2-6)." Please describe these requirements and cite a source. LACRPOSD-12

In general, please provide references throughout, either parenthetical or in footnotes. LACRPOSD-13

List of Agencies Expected to Use EIR

The project description does not include "...a list of agencies that are expected to use the EIR in their decision making..." pursuant to Section 15124(d)(1)(A) of the State CEQA Guidelines. A partial list is included in the introduction. As specified by the District in comments on the Notice of Preparation, comments on the former Draft EIR and in the comments contained herein, the District must be included in the list of agencies expected to use the EIR. LACRPOSD-14

List of Permits and Other Approvals

The project description does not include "...a list of permits and other approvals required to implement the project..." pursuant to Section 15124(d)(1)(B) of the State CEQA Guidelines. A partial list is included in the introduction. As specified by the District in comments on the Notice of Preparation and comments on the former Draft EIR, the list of permits and other approvals must include the responsibilities of the City and the District pursuant to Proposition A. LACRPOSD-15

Maps and Graphics

The project description does not include a detailed topographic map of the proposed project site, as specified pursuant to Section 15124(a) of the State CEQA Guidelines. A single map should be included that allows the reader to see all of the elements of the project included on a single map including the proposed oil field, access route, staging areas, and pipelines. LACRPOSD-16

Mr. Jeffery Adams
June 21, 2011
Page 12

East La Mirada is not an incorporated city, but it is a Census designated place.[17] Please revise the label in Figure 2-9, *Pipeline Route*, to "East La Mirada" or "Community of East La Mirada" and spell out "unincorporated."

List of Related Environmental Review and Consultation Requirements

The project description does not include "...a list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies..." pursuant to Section 15124(d)(1)(C) of the State CEQA Guidelines. LACRPOSD-17

SECTION 4.1 AIR QUALITY

General

The District is concerned that the EIR analysis does not provide a clear and consistent evaluation of impacts related to air quality and greenhouse gas emissions, for example, Page 4.1-1 states that the EIR analysis recommends mitigation to reduce impacts to a "less than significant level", despite the fact that several impacts discussed throughout section 4.1 remain as significant and unavoidable even after incorporation of mitigation measures. LACRPOSD-18

Section 4.1.1.2, Existing Air Quality

For characterization of existing conditions, the EIR should use the most recent data available from the monitoring sites that are located closest to the proposed project site. Page 4.1-4 states that the SCAQMD 2008 data is the "most recent data available", but at the time of preparation of the EIR, more recent data from 2009 was available from SCAQMD.[18] In addition, the EIR is inconsistent with determining which air quality monitoring station is the closest to the proposed project site. The first paragraph on page 4.1-4 states that the South San Gabriel Valley Area (Area 11) monitoring station is the closest, but the third paragraph states that data was taken from the South Central Los Angeles County (Area 12) monitoring station. The station number (84) is also inaccurate. The EIR should have characterized baseline PM_{10} emissions for the area using the nearest monitoring station to the proposed project site with available PM_{10} data. Characterization of PM_{10} emissions is especially important due to the fact that the project site is located in a nonattainment area for PM_{10}. LACRPOSD-19

[17] United States Census Bureau. American Fact Finder. Available at: http://factfinder.census.gov/servlet/SAFFPopulation?_event=Search&_name=east+la+mirada&_state=04000US06&_county=east+la+mirada&_cityTown=east+la+mirada&_zip=&_sse=on&_lang=en&pctxt=fph

[18] South Coast Air Quality Management District. Accessed on: 8 July 2011. *Historical Data by Year*. Available at: http://www.aqmd.gov/smog/historicaldata.htm

Mr. Jeffery Adams
June 21, 2011
Page 13

Section 4.1.3, Significance Criteria (Page 4.1-29)

Section 4.1.3 provides a description of the localized significance thresholds developed by the South Coast Air Quality Management District (SCAQMD), but does not describe the sensitive receptors that were evaluated in the air quality analysis for the proposed project. The footnote to Table 4.1-9 notes that the localized emission analysis for the proposed project assumes a 100-meter receptor distance, but Section 4.1 does not explain why this distance was chosen. Section 4.1 should include a list of sensitive receptors and their distance from the proposed project site in order to ensure that air quality impacts on sensitive receptors are correctly evaluated. LACRPOSD-20

Section 4.1.3 does not provide an explanation of why a 2-acre site was used to evaluate localized emission impacts during both construction and operation. The District believes that the area of impact that should be evaluated for air quality impacts includes the entirety of the proposed project site, which is noted in the Project Description to be 30.6 acres. SCAQMD recommends that proposed projects larger than 5 acres in area undergo air dispersion modeling to determine localized air quality impacts.[19] The applicant should provide evidence to support the decision to use a 2-acre site to evaluate localized emission impacts or should consider performing dispersion modeling for the 7-acre proposed project site. LACRPOSD-21

This section should also clearly define which significance thresholds were used for the greenhouse gas emission analysis and why. LACRPOSD-22

Section 4.1.1.3, Climate Change

Page 4.1-15 states that "a lifecycle type of analysis is necessary to evaluate fairly the greenhouse gas emissions associated with the entire raw material to end use cycle and the project's impact on the cycle", but the EIR does not use lifecycle assessments to evaluate the project's impact, leading to the conclusion that the EIR does not evaluate greenhouse gas emissions fairly. The proposed project proposes to drill for oil and gas reserves, which are fossil fuels with high greenhouse gas emission potential. The proposed project would serve to increase the availability of oil and gas, thereby increasing the potential for greenhouse gas emissions in conflict with the goals and objectives of greenhouse gas legislation, such as Assembly Bill (AB) 32. The indirect greenhouse gas emission impacts related to providing an increase the availability of fossil fuels are not discussed or evaluated in the EIR. LACRPOSD-23

Mitigation Measure AQ-4 states that "if GHG emissions exceed the SCAQMD thresholds, a GHG emission reduction program shall be implemented." Currently the

[19] South Coast Air Quality Management District. Accessed on: 19 November 2010. Localized Significance Thresholds. Web Site. Available at: http://www.aqmd.gov/ceqa/handbook/lst/lst.html

Mr. Jeffery Adams
June 21, 2011
Page 14

SCAQMD does not have adopted thresholds for the analysis of GHGs under CEQA by public agencies other than the SCAQMD itself. As the project cannot exceed thresholds that have not yet been developed or adopted, an argument for not implementing the GHG emissions reduction program on page 4.1-42 could be made, resulting in uncontrolled GHG emissions from the project. In addition, such a statement would be deferral of analysis and mitigation, and would therefore sidestep the CEQA responsibility to provide an analysis of impacts, and where significant impacts occur provide mitigation measures or alternatives to eliminate or reduce the significant impacts. LACRPOSD-24

Section 4.1.4.1, Construction Criteria Emissions (Page 4.1-31)

The District is concerned that the air quality analysis underestimates fugitive dust emissions, which are of particular concern to sensitive receptors. For example, Table 4.1-9 appears to underestimate that fugitive dust emissions associated with pipeline construction, an activity that would involve 2.8 miles of trenching. LACRPOSD-25

In addition, there are inconsistencies in the EIR about the significance conclusions. Table 4.1-9 states that emissions of NO_x would not exceed localized thresholds, but the first sentence under the table states that emissions would exceed local thresholds for NO_x. Inconsistencies about air quality impacts lead to doubts about the technical adequacy of the analysis. LACRPOSD-26

Page 4.1-32 states that "PM emissions associated with fugitive dust can be reduced by implementing measures such as watering", but the emissions calculated and presented in Table 4.1-9 use controlled emission factors that already take watering into consideration. Residual impacts should be quantified in order to clearly evaluate the level of significance after implementation of mitigation measures. From the information provided, there is no evidence that emissions would be reduced "to less than both the regional and local SCAQMD significance thresholds", as stated on page 4.1-33. LACRPOSD-27

Section 4.1.6, Mitigation Measure AQ-1a (Page 4.1-32)

In order to minimize fugitive dust impacts at sensitive receptors, additional mitigation for fugitive dust should be included in the Fugitive Dust Control Plan, such as ceasing construction activities on unpaved roads during windy conditions. LACRPOSD-28

Section 4.1.6, Mitigation Measure AQ-1d (Page 4.1-32)

In order to minimize air quality impacts at sensitive receptors, Mitigation Measure AQ-1d should be expanded to include requirements for off-road diesel-powered equipment to meet Tier 4 emission standards after January 1, 2015. LACRPOSD-29

Mr. Jeffery Adams
June 21, 2011
Page 15

Section 4.1.4.2, Operational Impacts (Page 4.1-34)

The District is concerned that residents and other sensitive receptors located in the vicinity of the proposed project would be exposed to significant operational NO_x emissions from the oil field operations. Page 4.1-36 concludes that operational impacts would be less than significant with mitigation; however, Table 4.1-10 shows that operational emissions during drilling would greatly exceed the SCAQMD localized thresholds for NO_x and particulate matter. The applicant should demonstrate how the specified mitigation measures would lower localized emissions of NO_x and particulate matter to below the level of significance or conclude that impacts during operation will remain as significant and unavoidable. Operational NO_x emissions during drilling greatly exceed any of the daily NO_x emissions during construction, which were determined to result in a significant unavoidable impact. It is important to note that emission offsets, as described in Mitigation Measure AQ-2b, would not reduce operational emission levels at sensitive receptors. In accordance with Section 15126.4(a) of the State CEQA Guidelines, the updated Draft EIR is required to identify feasible mitigation measures to ensure that operational impacts, particularly impacts at sensitive receptors, are reduced to below the level of significance. LACRPOSD-30

The District is also concerned that residents and other sensitive receptors located in the vicinity of the proposed project would be exposed to significant operational PM_{10} emissions from the oil field operations. The EIR states that operational PM_{10} emissions would be less than significant with mitigation (page 4.1-36), which is inconsistent with the statement on page 4.1-37 that "particulate emissions from diesel equipment would remain greater than the localized thresholds." The EIR needs to provide a consistent evaluation of impacts in accordance with the thresholds established by SCAQMD. LACRPOSD-31

Section 4.1.4.3, Potential Operations Odor Emissions

The District is concerned that odor impacts could remain as significant and unavoidable. Although page 4.1-40 describes how events similar to the January 2006 event at the Baldwin Hills Oilfield could be avoided, it does not explain how Notices of Violation and other odor complaints, such as those that occurred in recent years at Sycamore Canyon and Honolulu Terrace (see Table 4.1-6) could be avoided. LACRPOSD-32

Section 4.1.4.4, Greenhouse Gas Emissions (Page 4.1-40)

The updated Draft EIR uses the SCAQMD threshold of 10,000 metric tons CO_{2e} to determine the significance of the proposed project in relation to greenhouse gas (GHG) emissions but does not explain why this threshold was chosen for the proposed project. LACRPOSD-33

Mr. Jeffery Adams
June 21, 2011
Page 16

The interim GHG threshold approved by SCAQMD applies only to industrial (stationary source) projects where SCAQMD is the lead agency.[20] LACRPOSD-34

The updated Draft EIR does not discuss whether the proposed project would be consistent with adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions (Checklist question VII(a) in Appendix G of the State CEQA Guidelines). The District is concerned that implementation of the proposed project would be inconsistent with the County's commitment to reducing GHG emissions in accordance with the goals of Assembly Bill (AB) 32. LACRPOSD-35

As required by Section 15126.4(a) of the State CEQA Guidelines, adequate mitigation must be considered to avoid, reduce, and compensate for impacts to reduce them to below the level of significance to the maximum extent practicable. Although a mitigation measure for GHG emissions (AQ-4) is provided, the last sentence in Section 4.1.4.4 states that "the ability to implement some of these measures is uncertain." Section 15126.4(a) of the State CEQA Guidelines states that mitigation measures must be "feasible" and "fully enforceable". It is recommended that the EIR include specific, feasible, and enforceable mitigation measures for reducing GHG emissions, such as those that are recommended by the California Office of Attorney General. In the publication entitled *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*, the Office of Attorney General directs public agencies to take a leadership role in integrating sustainability into public projects by providing 52 project-level mitigation measures for consideration in the development of projects.[21] Some of the project-level mitigation measures that may be applicable for the proposed project include, but are not limited to, the following: LACRPOSD-36

- Provide education on energy efficiency.
- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Use low or zero-emission vehicles, including construction vehicles.

Mitigation could also include the following:

- Replacing diesel-fired drilling rig engines with natural gas-fired drilling rig engines
- Using fuel additives
- Using gas turbines rather than internal combustion engines for compressors

[20] South Coast Air Quality Management District. 5 December 2009. Board Meeting Data, Agenda No. 31. Available at: http://www.aqmd.gov/hb/2008/December/081231a.htm

[21] California Department of Justice Office of the Attorney General. Updated 9 December 2008. *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*. Sacramento, CA.

- Reducing the number of drilling rigs
- Installing selective catalytic reduction on drilling rig engines
- Using electric drilling rigs
- Implementing electric compression
- Requiring centralization of production facilities to reduce truck traffic
- Adopting cleaner technologies on completion activities, and other ancillary sources;
- Implementing advancements in drilling technology
- Reducing the pace of development

Section 4.1.5, Cumulative Impacts and Mitigation Measures

The EIR does not explain what radius was used for the cumulative impact analysis. The first paragraph on page 4.1-47 states that operational regional cumulative impacts could be produced as "multiple projects would emit into the same air basin at the same time." This statement suggests that the analysis considered the entire South Coast Air Basin in order to evaluate cumulative impacts. However, in contrast, the second paragraph on page 4.1-47 states that the Matrix City of La Habra project, which is located within the same air basin as the proposed project, is "too far" from the proposed project to produce cumulative impacts because it is located 1.6 miles away. The applicant should clearly define the methodology used to determine cumulative impacts and explain why other related oil and gas operations within and near the preserve were or were not included in the analysis. LACRPOSD-37

SECTION 4.2 BIOLOGICAL RESOURCES

General

With regard to impact significance criteria, the responses to the questions posed in State CEQA Guidelines Appendix G, Section IV, *Biological Resources*, the updated Draft EIR did not adequately discuss site-specific biological resources conditions.

The updated Draft EIR appears to suggest that a total of 4 days of fieldwork were undertaken to characterize baseline conditions; the balance of the data was taken from investigations that were from 2 to 13 years old. Section 15125 of the State CEQA Guidelines requires that the EIR describe the physical environmental conditions as they exist at the time that the Notice of Preparation is published. This is particularly problematic for this project site, most of which has only been in Preserve status for approximately 10 years. Without comprehensive surveys for invertebrates, herpetofauna, birds, and mammals, it is not possible to accurately quantitatively and qualitatively assess the indirect and cumulative impacts of the project on biological resources. The updated Draft EIR is required to define potential direct, indirect, and LACRPOSD-38

cumulative biological resources impacts of the proposed project. Impacts that affect relevant conservation and planning programs as well as all sensitive, threatened, and endangered species must be addressed.

Pages 4.2-1 to 4.2-8

This section presents information on biological resources potentially affected by implementation of the proposed project. The information includes 2008–2011 surveys and review of earlier work, including literature from the general region and literature cited in the Resource Management Plan (RMP).[22] Limiting the scope of the biological surveys to the area of direct effect would not provide sufficient data to understand the indirect and cumulative effects of the project. In particular, bat surveys were limited to a single year of general surveys for the Puente Hills from 2005–2006 (also 2004).[23] These bat surveys did not cover the exact area of the proposed project site. An increasing body of literature on bats since the California Energy Commission / California Department of Fish and Game (CDFG) Guidelines[24] were published have emphasized that bats can be vulnerable to impacts from infrastructures associated with project developments, at wind farms, but also at other types of development. The proposed project has development structures that potentially may place bats at risk. The updated Draft EIR should provide additional information on the likely impacts to bats from tall structures such as the drill rig masts at each of the proposed well pad sites. It would have been useful to conduct bat surveys in 2011 at the exact proposed project site to obtain detailed site-specific information including location of any bat roosts or hibernacula, rather than presume presence of special status bats at the project site based on general surveys of the Puente Hills. General bat surveys should be considered to remedy this omission. Please consider the identification of all species as being present or remedy by the implementation of site-specific bat surveys. LACRPOSD-39

The potential removal of up to 200 eucalyptus trees, the preferred winter roosting tree of Monarch butterflies, could have a substantial adverse impact on the Monarch butterfly wintering site. As required by Section 15126.6(a) of the State CEQA Guidelines, a reasonable range of feasible alternatives must be considered.

---

[22] Puente Hills Landfill Native Habitat Preservation Authority. 26 July 2007. *Resource Management Plan*. Available at: http://www.habitatauthority.org/pdf/RMP/Final%20RMP%20July%202007.pdf

[23] Puente Hills Landfill Native Habitat Preservation Authority. 26 July 2007. *Resource Management Plan*. Available at: http://www.habitatauthority.org/pdf/RMP/Final%20RMP%20July%202007.pdf

[24] California Energy Commission, and California Department of Fish and Game. October 2007. *California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development*. Commission Final Report. CEC-700-2007-008-CMF. Sacramento, CA: California Energy Commission, Renewables Committee, and Energy Facilities Siting Division, and California Department of Fish and Game, Resources Management and Policy Division.

Mr. Jeffery Adams
June 21, 2011
Page 19

Figure 4.2-2, *Vegetative Communities in the Vicinity of the North Access Road*, should include the project footprint, show conservation area boundaries, and clearly mark residential areas.

Section 4.2.1.2, Sensitive Biological Resources and Processes (Pages 4.2-9 to 4.2-27)

The updated Draft EIR states that supplemental surveys for special status wildlife species are being conducted to evaluate their presence and absence along the alignment of the proposed entry road off Colima Road. As specified in Section 15151 of the State CEQA Guidelines, the EIR is required to be prepared with sufficient degree of analysis to provide decision makers with information that enables them to make a decision that intelligently takes account of environmental consequences. The absence of data regarding the presence or absence of special status species significantly hinders the District's ability to make determinations regarding the scope and magnitude of the potential effect of the project on such species. In the absence of such surveys, all species for which suitable habitat is present should be assumed to be present, and mitigation measures developed and presented to demonstrate that it would be feasible to mitigate for such impacts. Surveys should be completed for all specials status plant and wildlife species, including bats, and provided to the City and all other Trustee and Responsible Agencies to inform the decision-making process. LACRPOSD-40

As required by Section 15126.6(b) of the State CEQA Guidelines, the updated Draft EIR is required to consider an alternative that is capable of avoiding impacts to the coastal California gnatcatcher. At a minimum, two alternatives should be considered: (1) development of the oil field outside the limits of the Preserve and (2) development at a location within the Preserve that avoids direct, indirect, and cumulative impacts to coastal California gnatcatcher, including a habitat restoration plan that can be qualitatively and quantitatively evaluated to demonstrate no net loss of habitat functions of values.

Section 4.2.2.3, Local Resource Regulations (Pages 4.2-31 to 4.2-38)

Figure 4.2-6, *Existing Trails and Oil Field Roads Leading to the Service Tunnel*, does not show any designated High Quality Habitat areas as stated in the text.

Appendix G of the State CEQA Guidelines calls for an analysis of potential "conflict with the provisions of an adopted Habitat Conservation Planning program, Natural Community Conservation Planning program, or other approved local, regional, or state Habitat Conservation Planning program." Section 4.11, Land Use and Policy Consistency Analysis, discusses the proposed project's conflicts with existing ordinances, plans, and permit requirements. It is clear from this discussion that the LACRPOSD-41

proposed project is in conflict with the City's General Plan, Municipal Code (zoning) and with the Preserve's RMP. The General Plan designates the project site as open space and the project site is zoned as Open Space under the Municipal Code. Therefore, reintroduction of oil exploration to the project site would conflict with Sections 18.09.010, 18.09.020, and 18.09.040, and 18.09.060 of the Whittier Municipal Code.

As specified in Section 15146 of the State CEQA Guidelines, the EIR is required to be prepared with sufficient degree of specificity to provide information that intelligently takes account of environmental consequences. The 1,500-meter urban-edge avoidance zone that bobcats are known to implement will impact a large acreage along the project boundary and the access road. This impact is relevant information that should be further analyzed. LACRPOSD-42

While oil and gas exploration and production can be allowed with a conditional use permit under Municipal Code Section 18.52.030, it is clear that implementation of the proposed project would conflict with various goals and objectives of the RMP, especially concerning activities identified as permissible within the Core Habitat Zone of the Preserve (including the western half of the project site), which the RMP limits to "authorized biological survey and some restoration and/or invasive species removal, but no unsupervised public access." Additionally, the eastern half of the site lies within the RMP Preservation Management Zone, which only allows for "existing passive, low-impact recreation."

Therefore, it is unclear as to how implementing Mitigation Measures BIO-1 through BIO-4 would reduce the proposed project's conflicts with local habitat conservation planning program policies and ordinances to a less than significant level.

Section 4.2.4, Project Impacts and Mitigation Measures (Pages 4.2-39 to 4.2-62)

The updated Draft EIR does not adequately summarize the biological resources likely to be impacted by the proposed project. As required by Section 15124.6(a) of the State CEQA Guidelines, the EIR needs to consider mitigation measures that are capable of avoiding, minimizing, and compensating for the loss of habitat. In addition, Section 15126.6(b) of the State CEQA Guidelines requires that the EIR consider an alternative that is capable of meeting most of the basic objectives of the project and avoiding significant impacts to biological resources. Specifically, the EIR needs to consider an alternative where the oil field would be located and developed outside the Preserve and alternatives to the proposed project. LACRPOSD-43

The updated Draft EIR concludes that the proposed project will result in significant and unavoidable effects to biological resources with regard to the wildlife corridor. However, the EIR does not disclose the anticipated adverse impacts with regard to the function of LACRPOSD-44

core habitat in the Preserve, which is located within close proximity to the proposed project site. In particular, the District would need to know the total area to be affected by direct, indirect, and cumulative impacts of the project.

The proposed project affects the primary biological resource, the Colima Road Wildlife Tunnel. Impact on this resource cannot be mitigated to less than significant levels under the proposed project because the development and operation of the proposed project would substantially impact wildlife movement (primarily terrestrial mammals). The RMP discusses wildlife movement corridors and habitat fragmentation effects in the Preserve.[25] The location of the proposed project along and near the southern boundary of the Preserve adjacent to or close to developed areas of the City of Whittier would reduce habitat fragmentation effects on the biota. LACRPOSD-45

The proposed project site has intermediate amounts of sensitive and indicator species. The southern boundary of the Core Habitat Area of the entire Preserve is La Cañada Verde, northwest of the Arroyo Pescadero Trailhead, located within 1 to 2 miles of the Colima Road Wildlife Tunnel. This tunnel is a major wildlife corridor (and nursery site for several species of terrestrial mammals), as documented in the updated Draft EIR. The updated Draft EIR does not explain how significant and unavoidable impacts on biological resources that may occur within the wildlife corridor will affect the function of the core habitat in the Preserve. None of the mitigation measures included in the updated Draft EIR address this issue. A quantitative habitat quality assessment should be included to document the ability of restoration and enhancement measures to achieve "no net loss" of habitat functions or values. As the Proposition A grant funds were originally designated for land conservation, it would appear prudent to quantify the total area of impact, including the direct, indirect, and cumulative effects, and provide for a land acquisition mitigation measure such that there is no net loss in the size of the conservation area. LACRPOSD-46

The construction activity required by the project applicant within the Preserve would presumably be interpreted by the U.S. Fish and Wildlife Service (USFWS) as major construction activity, requiring a Biological Assessment. Section 3.5.2 (Sensitive Wildlife Species) of the RMP referred to in the updated Draft EIR states that four pairs and wandering juveniles of coastal California gnatcatcher were discovered in portions of the Preserve in 2005. The proposed project would entail removal of coastal sage scrub habitat for one pair of coastal California gnatcatchers and would also affect additional suitable habitat for wandering individuals. LACRPOSD-47

The updated Draft EIR conclusions regarding the ability to mitigate impacts to coastal sage scrub habitat and the state- and federally threatened coastal California

[25] Puente Hills Landfill Native Habitat Preservation Authority. 26 July 2007. *Resource Management Plan*. Available at: http://www.habitatauthority.org/pdf/RMP/Final%20RMP%20July%202007.pdf

gnatcatcher to below the level of significance are not supported by substantial evidence. The updated Draft EIR defers the development of mitigation by indicating that the applicant will obtain a USFWS Incidental Take Permit. However, there is no evidence in the record that the applicant has developed or submitted a Biological Assessment pursuant to Section 7 of the federal Endangered Species Act (ESA) or Section 2081 Incidental Take Permit package pursuant to Section 2081 (b) of the California ESA. At a minimum, the updated Draft EIR should include a discussion of the initiation of consultation between the applicant and the USFWS and CDFG, and that the development of the required supporting documents is on a parallel course with the EIR for the project. LACRPOSD-48

As required by Section 15126.6(b) of the State CEQA Guidelines, the EIR must consider an alternative that is capable of avoiding impacts to the coastal California gnatcatcher. At a minimum, two alternatives should be considered: (1) development of the oil field outside the limits of the Preserve and (2) development at a location within the Preserve that avoids direct, indirect, and cumulative impacts to coastal California gnatcatcher. LACRPOSD-49

Mitigation Measure BIO-1a proposes a mitigation ratio of 3:1 for permanent loss of 4.16 acres (plus 5.49 acres of temporary loss) of coastal sage scrub habitat to be replaced by restoration of degraded habitat. The 4.16 acres out of a total of 845.31 acres is a loss of 0.5 percent of this habitat within the Preserve. The rationale for this mitigation ratio is not explained. Furthermore, coastal sage scrub habitat at this location has been designated as critical habitat for the coastal California gnatcatcher. Consultation with the USFWS and subsequent terms and conditions of an Incidental Take Permit pursuant to Section 7 of the Federal ESA for the project may require a higher mitigation ratio than a 3:1 mitigation ratio for loss of 4.16 acres of critical habitat for the coastal California gnatcatcher. LACRPOSD-50

Mitigation Measure BIO-1d proposes consultation with USFWS to obtain an Incidental Take Permit pursuant to Section 7 or Section 10 of the federal ESA to cover the proposed project's "take" of the California gnatcatcher and its sensitive habitat. Additionally, the project applicant should consult with CDFG for an incidental take permit pursuant to Section 2081 (b) of the California ESA. The project applicant should not have deferred these consultations. These consultations should already have taken place and their results placed into the administrative record in this updated Draft EIR. There is insufficient substantial evidence to support the conclusion that the impacts to coastal sage scrub and the coastal California gnatcatcher can be reduced to below the level of significance. LACRPOSD-51

Mitigation Measure BIO-2a proposes a mitigation ratio of 3:1 for permanent loss of 0.22 acre (1.09 acres, including temporary loss) of riparian habitat to be replaced by LACRPOSD-52

restoration of degraded habitat. This section should provide a brief rationale for proposing a 3:1 mitigation ratio for removal and replacement of riparian habitat. In addition, it should be clarified if this mitigation has this been recommended or agreed to by the agencies.

Section 4.2.6, Cumulative Impacts and Mitigation Measures (Pages 4.2-63 to 4.2-66)

Natural open space lands in the project vicinity are highly constrained by surrounding intensive development, and the habitat that is preserved is fragmented by numerous existing roads. Habitat fragmentation can result in a variety of alterations from the existing ecosystem functions including: changes in interspecies dynamics, providing opportunities for aggressive generalist species to outcompete or overhunt other species; and genetic isolation, which can limit a population's adaptability to changed environmental conditions. Implementation of the proposed project would further fragment and isolate many areas of open space from adjacent upland and riparian habitats located immediately to the west, east, south, and north and reduce the effective size of core areas within the Preserve. LACRPOSD-53

The cumulative impacts section would be improved by the addition of information regarding the significance of the proposed project's incremental contribution to habitat fragmentation. It is unclear as to how the mitigation measures identified in the updated EIR are designed to "bolster the ecological resilience of the Preserve in the Project vicinity, counteracting the adverse effects of the proposed Project, both considered alone and in the context of contributions to cumulatively considerable impacts of other planned Projects." While Mitigation Measures BIO-1a through BIO-1e and BIO-2a and BIO-2b would increase the quality of existing habitats through greater-than-equal-area replacement of sensitive habitat types, these measures are ineffective in preventing or reducing further incremental habitat fragmentation that would result from implementation of the proposed project in the context of contributions to cumulatively considerable impacts of other existing and planned projects.

SECTION 4.3 SAFETY, RISK OF UPSET, AND HAZARDOUS MATERIALS

With regard to impact significance criteria, the responses to the questions posed in State CEQA Guidelines Appendix G, Section VIII, *Hazards and Hazardous Materials*, the updated Draft EIR did not specifically address them all.

- Section 4.3 identifies the "Ocean View Public School," but the location is not provided. There are two existing preschools that are located less than one-quarter mile from the proposed project site at the time of the analysis. These schools are (1) Whittier Area Co-Op Education Pre-school and (2) LACRPOSD-54

the Mar Vista Early Childhood Pre-school. These preschools are located on the same campus at 8036 South Ocean View Avenue approximately 0.1 mile south of the proposed project. The Ocean View Elementary School is located at 14359 East 2nd Ave., approximately 0.9 mile south of the proposed project. The text in the updated Draft EIR does not provide the official name or location of the "Ocean View Public School" that it identifies. The District made this same comment on the 2010 updated Draft EIR, yet analysis in relation to these sensitive receptors was not provided.

- Figure 4.3-2 or a new map or table should depict the locations of the three schools mentioned above to show the distance of these schools with respect to the proposed project. LACRPOSD-55

- CEQA Guidelines Appendix G, Section VIII, questions (e) and (f) regarding public and private airports should be evaluated. LACRPOSD-56

- CEQA Guidelines Appendix G, Section VIII, question (g) should be evaluated. It should be determined if the proposed project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Although Mitigation Measure SR-1b indicates third-party review of an emergency plan, this CEQA checklist item is not addressed specifically. LACRPOSD-57

- CEQA Guidelines Appendix G, Section VIII question (h) should be evaluated. It should be determined if the proposed project would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The District made this same comment on the 2010 Draft EIR, yet analysis in relation to this CEQA requirement was not provided. LACRPOSD-58

As a result of deficiencies of the analysis, the updated Draft EIR did not develop mitigation measures to address:

- Hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of existing or proposed schools (see comment above); LACRPOSD-59

- Whether the project would result in a safety hazard to people working at public or private airports; LACRPOSD-60

Mr. Jeffery Adams
June 21, 2011
Page 25

- The need to develop an emergency response plan or emergency evacuation plan in case of accidental release or leak of oil and gas; and LACRPOSD-61

- The location of the proposed project in an area which is subject to wildland fires and mitigation measures. LACRPOSD-62

Section 4.3.1.3, Study Area and Scope (Page 4.3-2)

Regarding the "Ocean View Public School," the formal name and address of this school should be provided. Also note that there are two schools located on Ocean View Boulevard within one-quarter mile of the proposed project area (see comment under Issue 1 above). There is an Ocean View Elementary School located at 14359 2nd Street, which is located farther from the project (about 0.9 mile) than the schools on Ocean View Boulevard. LACRPOSD-63

Section 4.3.3, Significance Criteria (Pages 4.3-47)

Please provide a more complete reference for the "significant safety effect" description in the first sentence of the first paragraph. This cannot be found in the CEQA Guidelines. LACRPOSD-64

Section 4.3.4, Impacts of the Proposed Project (Page 4.3-62)

The discussion of impacts that could produce a fatality or injuries is vague, that is, the potential distance from the incident site that could be affected. The text merely says that residences would not be affected by a blowout and Lodosa Road would be impacted by a rupture near the metering station. If the applicant has conducted computer modeling (results presented in Figure 4.3-4), the distance has been determined and should be referenced or stated here concisely. Also, there is confusion as to the schools that were included in the evaluation. LACRPOSD-65

Section 4.3.5, Project Impacts and Mitigation Measures (Page 4.3-66)

A reference to a specific data table or figure is needed for the frequency that would not produce unacceptable risk levels. LACRPOSD-66

Mr. Jeffery Adams
June 21, 2011
Page 26

SECTION 4.4 GEOLOGICAL RESOURCES

General Comments

In general, more explanation and definition of geologic terms and words should be provided to assist the lay reader. With regard to impact significance criteria, the responses to the questions posed in State CEQA Guidelines Appendix G, Section VI, *Geology and Soils*, the updated Draft EIR failed to discuss site-specific geologic conditions. LACRPOSD-67

In general, the geological resources portion of the updated Draft EIR provides a relatively detailed discussion of typical geologic hazards present for hillside development projects in southern California. The text provides a relatively good general description of seismic and geotechnical hazards including fault rupture, seismic shaking, liquefaction, compressible soils, slope stability, and landslides and erosion. However, information about specific geologic conditions on site appears lacking. There is little discussion about specific geologic conditions expected in the area of the proposed well sites, access roads, and loading areas. It does not appear that much study of the specific site has been conducted.

As an example, the text provides several paragraphs to describe liquefaction and liquefaction analysis; however, little or no information is provided about site specific conditions. The last two sentences of the liquefaction discussion state that the "...site is not located within a liquefaction zone delineated by the Department of Conservation Seismic Hazards Zones Map (April, 1998). However, onsite investigation and soil testing did not perform a liquefaction analysis to assess liquefaction." The Seismic Hazard Zone Map for the Whittier Quadrangles shows portions of the Central Well Site and the Western Well Site in areas mapped as potentially liquefiable.[26] LACRPOSD-68

It is difficult to evaluate the geologic conditions of the project based on the geological resources portion of the updated Draft EIR, because little or no site specific information is provided in the text or with the figures.

Section 4.4.1.1, Physiography (Page 4.4-1)

The last two sentences of the second paragraph should be expanded to describe where the cut and fill slopes are located related to the proposed project site. Information about past grading activities is presented in the Soil Engineering and Engineering Geology Investigation report (Heathcote Geotechnical, January 13, 2011). It would be useful if the cut and fill slopes are delineated on a map. LACRPOSD-69

[26] California Geological Survey. Revised 25 March 1999. *Seismic Hazards Zones Official Map, Whittier Quadrangle.* Sacramento, CA.

Mr. Jeffery Adams
June 21, 2011
Page 27

Section 4.4.1.2, Regional Geologic Setting (Page 4.4-1)

The first paragraph references the Peninsular Geomorphic Province and the Transverse Ranges Geomorphic Province and should be described in more detail to give a broader picture of the regional geologic setting. The text references the Monterey Formation, but no description is provided; this formation is cross-referenced to Figure 4.4-2, but it does not appear on the figure. LACRPOSD-70

Section 4.4.1.3, Local Geologic Setting (Page 4.4-2)

A previous site investigation was apparently conducted for the project. However, the scope of that study seems quite limited. A study by Heathcote (20011) is briefly discussed. The subsurface portion of this investigation was apparently conducted with 14 hand auger borings to a maximum depth of 17 feet. While detailed design level geotechnical studies are not always required as part of project planning, the limited investigation conducted by Heathcote does not seem to have developed much useful site-specific information or at least it is not presented in the updated Draft EIR. Deep hollow stem auger borings and large-diameter bucket auger borings are typically required to evaluate the subsurface soil and slope stability conditions on a hillside site. Such an investigation should be conducted to better evaluate the site conditions. LACRPOSD-71

The geologic conditions in the area of the well sites and proposed new access roads should be discussed in more detail. A site-specific geologic map showing the limits of the proposed project and the geologic conditions should be provided. The text talks about artificial fill, alluvial soil, landslide debris, and bedrock. A geologic map showing the distribution of these units would help illustrate the conditions and help demonstrate the impact of the geology on the proposed improvements. The analysis should address if any landslides are present near the proposed improvements and the limits of the artificial fill. In addition, complete removal of artificial fill and landslide debris may be required (as a stated mitigation measure); it would be good to know where these geologic units are with respect to the proposed improvements. LACRPOSD-72

Although no site-specific geologic map was provided in the updated Draft EIR, a review was conducted of geologic reports and maps covering the area by Dibblee and Yerkes.[27,28] These maps cover portions of the Western Puente Hills and include the area of the proposed project. These maps show the geologic units and topography in much better detail than the state map and could be used as a basis or starting point for a site-specific geologic map when combined with on-site geologic mapping. LACRPOSD-73

[27] Dibblee, T.W.J. March 2001. Geologic Map of the Whittier and La Habra Quadrangles (Western Puente Hills) Los Angeles and Orange Counties, California. Dibblee Geological Foundation Map #74.

[28] Yerkes, R.F. 1972. *Geology and Mineral Resources of the Western Puente Hills Area, Southern California*. USGS Professional Paper 420-C.

Mr. Jeffery Adams
June 21, 2011
Page 28

Section 4.4.1.4, Geologic Hazards (Pages 4.4-6)

One of the most significant seismic risks in Southern California is the Puente Hills Blind Thrust fault. Blind thrust faults are briefly alluded to in the text (page 4.4-6) but are not discussed in depth. The Puente Hills Blind Thrust has been mapped under the site and under most of the eastern Los Angeles Basin.[29] Uplift of the Puente Hills is believed to result, at least in part, from movement along this fault. The Whittier Narrows Earthquake of 1987 is also considered to have resulted from movement along a blind thrust fault.[30] Movement along the fault is considered to be one of the most significant risks of seismic shaking in the area. Considering it poses such a significant seismic risk to the site, additional review and analysis of the Puente Hills Blind Thrust fault appears warranted. LACRPOSD-74

Please cite the sources for the data given on slip rates and potential magnitudes of future events.

More information should be provided on the Alquist-Priolo Fault Zone in this section and provide more clarification as to whether or not the Whittier Fault is within the Alquist-Priolo Fault zone. The last paragraph states that no Alquist-Priolo Fault Zones are present within the Project Area. LACRPOSD-75

For clarity and ease of review, Table 4.4-1 should be relocated to come after Section 4.4.1.4. Table 4.4-1 should also provide the distance of faults to the project site. A similar table is provided in the *Soil Engineering and Engineering Geology Investigation* (Heathcote Geotechnical, January 2011) technical report. The technical report should be the primary reference source for the table, and the entire section. LACRPOSD-76

Please cite the sources for the information provided in the subsection, *Earthquakes and Petroleum Facilities*, on page 4.4-7.

It is unclear why the subsection *Earthquakes and Petroleum Facilities* (Pages 4.4-7) is now included in the EIR. No other reference to earthquakes and petroleum facilities is provided; nor is any mitigation provided. LACRPOSD-77

Probabilistic Ground Acceleration Analysis (Page 4.4-8)

The subsection *Probabilistic Ground Acceleration Analysis* (Page 4.4-8) replaced the subsection *Ground Shaking.* This subsection should be rewritten for clarity and for a LACRPOSD-78

[29] Shaw, J.H., A. Plesch, J.F. Dolan, T.L. Pratt, and P. Flore. December 2002. "Puente Hills Blind-Thrust System, Los Angeles, California." In *Bulletin of the Seismological Society of America*, 92 (8).

[30] Davis, T.L., J. Namson, and R.F. Yerkes. 1989. "A Cross Section of the Los Angeles Area: Seismically Active Fold and Thrust Belt, the 1987 Whittier Narrows Earthquake and Earthquake Hazard." In *Journal of Geophysical Research*, 94 (B7): 9,644.

target audience that has no previous geologic background. The *Soil Engineering and Engineering Geology Investigation* (Heathcote Geotechnical, January 2011) technical report contains a section on Ground Shaking which includes a discussion on ground acceleration; it is not clear why the subsection *Probabilistic Ground Acceleration Analysis* was included in this section since it was not part of the original geotechnical report.

In addition, seismicity in accordance with the current California Building Code (CBC) requirements was not addressed. Peak Horizontal Ground Accelerations provided in Table 4.4-1 should consider current CBC requirements. LACRPOSD-79

Liquefaction (Page 4.4-10)

As previously noted, the site has been mapped in an area potentially susceptible to liquefaction. Areas on site where liquefaction is a potential concern should be more clearly identified on a map. The section refers to Figure 4.4-1 to identify portions of the project area that have the potential for liquefaction, however these areas are not clearly delineated on Figure 4.4-1. LACRPOSD-80

Lateral Spreading (Page 4.4-10)

Because this is related to liquefaction, these sections could be combined. As described in the *Soil Engineering and Engineering Geology Investigation* (Heathcote Geotechnical, January 2011), the section should state where borings where done (La Canada Verde Creek) as part of the evaluation. LACRPOSD-81

Differential Settlement (Page 4.4-11)

It is unclear why the *Soil Engineering and Engineering Geology Investigation* (Heathcote Geotechnical, January 2011) does not discuss differential settlement, although this topic is discussed in the EIR. The project geotechnical report and the Geological Resources Section of the updated Draft EIR should clearly cite references and more clearly evaluate the relevance this potential hazard to the proposed oil and gas extraction operation and the surrounding area, if any. LACRPOSD-82

Earthquake-Induced Landslides (Page 4.4-11)

The text describes a potential for rock fall, debris flow, slumps and landslides. Rock falls are more common in hard bedrock areas where igneous and metamorphic rocks and steep boulder strewn slopes predominate. Soil slips and bedrock landslides are more common in the sedimentary bedrock units on site. The discussion of seismically induced landslides should be updated to include a discussion of these types of landslides, as LACRPOSD-83

they are more likely to occur within the proposed project areas. Portions of the site have been mapped as potentially subject to seismically induced landslides;[31,32] this discussion should be expanded to include a discussion of areas within the project site that have a previous occurrence of landslide movement. These areas should be identified and depicted on an accompanying figure, and the project geotechnical report should be expanded to discuss this topic. LACRPOSD-84

Section 4.4.1.5, Geotechnical Hazards (Page 4.4-11)

The updated Draft EIR defines expansive soils, hydroconsolidation (more commonly termed collapse), subsidence, existing fills, groundwater, compressible soils, slope stability and landslides, and slope deformation and other geotechnical concerns. However, no-site specific information is provided, and no indication is given as to whether these potential hazards are present on site or not. LACRPOSD-85

The discussion in the subsection *Existing Fill* does not explain what uncontrolled artificial fill is, or if it is present at the proposed project site. Please clarify for the lay reader. LACRPOSD-86

Leighton and Associates conducted a planning level study for the Whittier Main Oil Field in 1992, based on a review of aerial photographs, existing maps and surface geologic mapping, that study identified fault, landslides, surficial soils, artificial fill, and other hazards on site. This data was to be used for planning of a proposed development project. Landslides and faults identified in that study are present in the vicinity of the proposed project site. Artificial fill was identified in the area of the proposed project site and the truck loading area. As a minimum, a limited site-specific geotechnical study should be conducted for this project to evaluate what geotechnical hazards are expected on site with respect the proposed improvements and to aid in developing recommendations to mitigate those hazards. LACRPOSD-87

Section 4.4.4, Significance Criteria (Page 4.4-16)

This section does not list the entire significance criteria in the 2011 CEQA Guidelines Appendix G, Environmental Checklist. The updated Draft EIR does not list criteria VI (b) *Result in substantial soil erosion or the loss of topsoil* and no discussion of this issue is provided in the updated Draft EIR. The analysis of this issue would be improved by an evaluation of the construction and operational phases of the project, and the analysis must address direct, indirect and cumulative impacts. LACRPOSD-88

---

[31] California Geological Survey. Revised 15 April 1998. *Seismic Hazards Zones Official Map, La Habra Quadrangle*. Sacramento, CA.

[32] California Geological Survey. Revised 25 March 1999. *Seismic Hazards Zones Official Map, Whittier Quadrangle*. Sacramento, CA.

Mr. Jeffery Adams
June 21, 2011
Page 31

Section 4.4.5, Project Impacts and Mitigation Measures (Page 4.4-17)

The impact descriptions do not match the CEQA Appendix G Environmental Checklist. Title 14. California Code of Regulations; Chapter 13. Guidelines for Implementation of the California Environmental Quality Act, Article 5 §15064.7 (a) Thresholds of Significance states that, "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect...". The thresholds described in CEQA Appendix G Environmental Checklist should be used. If the City of Whittier has adopted its own thresholds as described in §15064.7, the updated Draft EIR should reference City of Whittier thresholds. LACRPOSD-89

The mitigation measures in the updated Draft EIR have been reduced to 7 from the 31 provided in the previous version of the updated Draft EIR. However, these mitigation measures do not appear to have been revised based on comments provided on the previous Draft EIR. Because of the limited analysis of the actual site conditions, it appears that mitigation measures are presented for "what if" conditions. For example, rather than evaluating whether landslides are present in the project area, a mitigation measure is presented just in case one landslide area is present. Conversely, other mitigation measures that should have been discussed, such as fault rupture potential, were omitted. LACRPOSD-90

Several of the mitigation measures require geotechnical analysis and submittal of geotechnical reports to address specific geotechnical hazards. The City is the reviewing agency for these reports, although Los Angeles County and California Code requirements are specified. It is suggested that the geotechnical reports be prepared in accordance with the County of Los Angeles Department of Public Works Manual for Preparation of Geotechnical Reports.[33] The review should be conducted either by an agency, such as the Los Angeles County Engineering Geology and Soils Engineering Sections, or a third party consultant familiar with geotechnical engineering, engineering geology and hillside development. LACRPOSD-91

SECTION 4.5 NOISE AND VIBRATION

General Comments

Impacts or effects, as defined by CEQA, include direct or primary effects that are caused by the project and occur at the same time and place. The updated Draft EIR did not disclose the overall noise impacts from construction of the access roads. LACRPOSD-92

[33] County of Los Angeles Department of Public Works. July 2010. *Manual for Preparation of Geotechnical Reports.* Available at: http://ladpw.org/services/publications.cfm

Mr. Jeffery Adams
June 21, 2011
Page 32

The updated Draft EIR does not provide sufficient analysis of the effects of noise on wildlife and recreational users that would originate from the proposed project. All mitigation measures regarding increased noise levels caused by the construction and operation of the proposed project should be incorporated into the updated Draft EIR. The proposed project lies within the Puente Hills Landfill Native Habitat Preserve and has the potential for substantial and significant effects on the recreational use of this area. Loud noises can be heard from a great distance and often extend beyond a treeline or ridgeline, thus resulting in impacts that can extend beyond the visual as well as other physical impacts for recreational users. LACRPOSD-93

Section 4.5.2, Regulatory Setting (Page 4.5-14)

In order for the proposed project to be exempt for operation of oil and gas wells, the proposed project must fully comply with conditions of permits issued under Chapter 5, Article 1 of the County of Los Angeles Zoning Ordinance as amended, as set out in Title 22 of the County of Los Angeles Noise Ordinance. LACRPOSD-94

Section 4.5.2.5, Significance Criteria (Page 4.5-20)

Under CEQA Guidelines, there are six questions to consider when addressing the potential for significant impacts to noise in an EIR. The updated Draft EIR did not use any of the significance criteria required by CEQA.

(a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? LACRPOSD-95

(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity about levels existing without the project?

(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The significance criteria must be the significance criteria required by CEQA.

The County of Los Angeles's noise standards for construction were discussed in the regulatory framework, but in the Significance Criteria the only condition in which construction noise was indicated to be considered significant was if construction activities were to occur outside of the City of Whittier Municipal Code time frame of 7 a.m. to 6 p.m. weekdays or 8 a.m. to 5 p.m. on Saturdays. It was indicated in the Noise section that portions of the proposed project (i.e., the pipeline) would be within County of Los Angeles unincorporated area. However, County noise standards for construction were not utilized to evaluate the noise impacts of these project elements. To determine the noise impacts of a proposed project, Appendix G to the State CEQA Guidelines asks if a project would result in "exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?" Therefore, it is recommended that the noise impacts of the construction of the proposed project within the County of Los Angeles be analyzed in relation to the County of Los Angeles's noise standards for construction noise. LACRPOSD-96

Section 4.5.3, Analysis of Proposed Project (Page 4.5-21)

The updated Draft EIR states, "The FHWS noise model estimates noise level increases along Mar Vista Street, Penn Street, and Colima Road due to increased project traffic during operations to be less than 0.10 dBA due to the small additional traffic added relative to the current traffic on the roadways" (page 4.5-21). The access roads that would be constructed as a part of the proposed project would add traffic to the Preserve. The Preserve does not contain any traffic or roads as it is now. The traffic noise at the Preserve without the proposed project would be significantly less than the traffic noise at the Preserve with the proposed project. This impact must be disclosed and mitigated. LACRPOSD-97

The construction noise of the access roads was not analyzed. These impacts must be disclosed and mitigated. LACRPOSD-98

The updated Draft EIR states, "Impacts from construction would be similar to the impacts associated with the Loop Trail and pad grading. This would be below the County Municipal Code level of 75 dBA" (page 4.5-23). Though the noise level would be below the level of significance, the noise level would be greater than the noise level without the proposed project. This impact must be disclosed and mitigated. LACRPOSD-99

Mr. Jeffery Adams
June 21, 2011
Page 34

Throughout Section 4.5.3, there are significant impacts that are not disclosed as significant. The updated Draft EIR states, "Back-up alarm noise levels are assumed to be 5 dBA more than the crane's peak noise level; Noise levels at the Loop Trail location closest to the drilling activities would increase by more than 14 dBA over the minimum baseline peak hour" (page 4.5-26). These impacts must be disclosed as significant impacts and mitigated. LACRPOSD-100

The updated Draft EIR does not disclose the exact noise levels at the nearest sensitive receptor to construction. This information must be disclosed. LACRPOSD-101

The updated Draft EIR states that construction noise would be less than significant since it would be short-term and only during daytime hours. The proposed project site is adjacent to single-family residential zones and residential zones according to the City of Whittier and County of Los Angeles zoning designations. Under the County of Los Angeles Noise Ordinance, construction noise levels cannot exceed 60 dBA in a single-family residential zone daily between the hours of 7:00 a.m. to 8:00 p.m., except Sundays and legal holidays and 50 dBA daily between the hours of 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays. LACRPOSD-102

The updated Draft EIR states, "The Ranger Residence is more than 700 feet from the drilling activities (approximately 1,000 feet). Therefore, this would be a less than significant impact" (page 4.5-37). The updated Draft EIR does not disclose the vibration impacts of the construction of the access roads to the nearest residences. These impacts should be disclosed and, if necessary, mitigated. LACRPOSD-103

The updated Draft EIR states, "Mitigation measures T-1a (ensuring speed limits are posted along Catalina Avenue) and T-1e (implementing a pavement monitoring requirement to ensure that roadway pavement is maintained and free of discontinuities) would mitigate this potentially significant impact" (page 4.5-38 to 4.5-39). While the updated Draft EIR does present mitigation measures for this potentially significant impact, it does not state whether the significant impact would become less than significant or continue to be potentially significant with incorporation of the mitigation measures. A conclusion stating whether the impact will be significant or less than significant with incorporation of the mitigation measures should be included. LACRPOSD-104

The updated Draft EIR states, "This wall would not only reduce noise levels at the Loop Trail recreational receptor, but it would reduce noise levels within the Preserve and canyon area, which would reduce impacts on biology" (page 4.5-42). The Noise section of the updated Draft EIR does not state the exact noise level in the Preserve and canyon with mitigation measures. The noise levels without the proposed project would be significantly lower than the noise level in the preserve with the mitigation measures of the proposed project. This impact should be disclosed and mitigated. LACRPOSD-105

Mr. Jeffery Adams
June 21, 2011
Page 35

Section 4.5.3.1, Other Issue Area Mitigation Measure Impacts (Page 4.5-46)

The updated Draft EIR states, "Mitigation measures proposed for other issues areas could increase impacts to noise and vibration if they are implemented...." None of the mitigation measures proposed for impacts related to other issue areas would increase noise impacts" (page 4.5-46). This wording makes it unclear whether the mitigation measures cause a significant impact to noise. LACRPOSD-106

Section 4.5.4, Cumulative Impacts and Mitigation Measures (Page 4.5-46)

Under CEQA, cumulative impacts are defined as two or more individual effects that, when considered together, are considerable, or which compound or increase other environmental impacts. CEQA also states that whereas a lead agency need not consider that effect significant, it shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. The updated Draft EIR did not adequately explain why the cumulative impacts to noise and vibration were not cumulatively considerable. LACRPOSD-107

SECTION 4.6 AESTHETICS AND VISUAL RESOURCES

General Comments

The updated Draft EIR did not disclose the overall visual impacts to residents and recreational users on nearby trails from construction of access roads, parking lots, construction staging areas, and electrical (utility) lines. The updated Draft EIR assessment requires improvement in the following areas: LACRPOSD-108

- Analysis with respect to the visual impacts associated with conversion of the property within the preserve
- Evaluation of surrounding recreational trails and the potential to impact visual resources in those areas
- Analysis pertaining to scenic vistas and new sources of light
- Analysis with respect to cumulative projects and impacts
-

Section 4.6.1, Environmental Setting (Page 4.6-4)

Description/Depiction of Viewing Locations

Section 4.6.1 states, "there were a total of six viewing locations examined as part of this study." However, Table 4.6-1, *Critical Viewing Locations*, and Figure 4.6-1, *Viewing Locations*, identify five viewing locations. Furthermore, viewing location No. 5 is not LACRPOSD-109

shown on Figure 4.6-1, it is only indicated with a label and arrow pointing to a location outside of the mapped area. Figure 4.6-1 should be revised to display the location of all viewing points. Furthermore, views from the Arroyo Pescadero Loop Hiking Trail and viewpoints from the west looking east at the proposed project site should also be identified and evaluated in the photo simulations.

Figure 4.6-1 does not indicate the locations of the proposed project elements in relation to the critical viewing locations. The District recommends that Figure 4.6-1 be revised to identify all key project elements (i.e., drilling rig, oil processing equipment, roads, utility lines, etc.) and indicate their locations in relation to critical viewpoints. LACRPOSD-110

Section 4.6.2, Regulatory Setting (Page 4.6-12)

Legislation after County of Los Angeles General Plan

Section 4.6.2 states, "Under the Open Space category [of the County of Los Angeles General Plan], existing mineral operations and new or expanded operations are considered as compatible uses with the stipulation that they 'do not significantly degrade other identified open space resources.'" The County of Los Angeles General Plan was adopted in 1980 and additional legislation (Proposition A) specific to the proposed project site was passed by voters in 1992 and 1996. The District was created with the approval of Proposition A on November 3, 1992, authorizing an annual assessment on nearly all of the then 2.25 million parcels of real property in the County. In 1996, voters approved another Proposition A, allocating $319 million for parks and recreation projects and additional funds to maintain and service the projects.[34] LACRPOSD-111

The EIR does not explain how the proposed project complies with the General Plan Open Space category given that implementation of the proposed project would result in significant and unavoidable impacts to aesthetics and visual resources (Impact AE. 1, page 4.6-21).

Proposition A

Aesthetics and visual resources mitigation measures do not address the visual impact of the land lost within the preserve as a result of the proposed project (minimum of a 15.2 acres permanent reduction with approximately 30.6 acres impacted by construction activities) (page 2-13). As the Proposition A grant funds were originally designated for land conservation, it would be prudent to quantify the total area of impact, including the direct, indirect, and cumulative effects, and provide for a land acquisition mitigation measure such that there is no net loss in the size of the conservation area. The impact LACRPOSD-112

[34] County of Los Angeles, Regional Park and Open Space District. Accessed on 5 November 2010. Available at: http://openspacedistrict.lacounty.info/cms1_033119.asp

analysis should be revised to include an evaluation of Proposition A.

Habitat Authority Resource Management Plan (Page 4.6-12)

The proposed project would not meet the goals of the Habitat Authority Resource Management Plan, specifically, the goals and objectives stated on page 4.6-12 of the updated Draft EIR. Mitigation measures should be included to ensure that the proposed project meets the visual resources goals and objectives of the Habitat Authority Resource Management Plan. LACRPOSD-113

Section 4.6.4, Project Impacts and Mitigation Measures (Page 4.6-13)

***Project Components* (Page 4.6-13)**

All proposed project features that have the potential to alter the visual character of the proposed project site and surrounding area should be stated and evaluated. On page 4.6-13, the impacts associated with the construction staging and parking area, utilities lines, road construction/usage, and pipelines were not disclosed or analyzed. LACRPOSD-114

CEQA Thresholds and Impact Descriptions (Pages 4.6-13 and 4.6-25)

In various instances, including Impact AE.1 (page 4.6-21) and Impact AE.4 (page 4.6-25), the aesthetics and visual resources section does not fully observe or state the threshold of significance. For example, Appendix G of the State CEQA Guidelines defines a project as having a significant visual effect on the environment if it would "create a new source of substantial light or glare that would adversely affect day or nighttime views in the area." Impact AE.4, redefines the threshold to state that "the proposed project could increase nighttime lighting and glare," eliminating the daytime light or glare and removing language pertaining to a new source of light (light that adversely affects views). LACRPOSD-115

Night Lighting (Page 4.6-25)

The analysis of night lighting concludes that the flashing red light that would be installed on the top of the drilling rig would not cause a significant illumination impact because it would be below the level of significance (page 4.6-25). According to the Appendix G to the State CEQA Guidelines, a proposed project would have a potentially significance impact to aesthetics and visual resources if it would "create a new source of substantial light or glare which would adversely affect day or nighttime views in the area." Given that the proposed location of the drilling rig would be generally unlighted, the installation of a flashing red light may contrast sufficiently with the existing conditions to be considered a potentially significant impact. Section 4.6 of the updated Draft EIR states LACRPOSD-116

that "oil wells would be drilled and operations would be scheduled 24 hours per day, lighting the work site drilling platforms for safety may create prominent night lighting during drilling." In any case, the significance level of the potential illumination impact from the flashing red light should not be evaluated based on the luminance level of the light, but on the visibility of the light and its potential to alter nighttime views from nearby viewsheds and areas within the preserve.

Section 4.6.4, Project Impacts and Mitigation Measures (Pages 4.6-21 and 4.6-26)

Under CEQA, alternatives and mitigation measures must be explored to reduce any potentially significant impacts of the proposed project. The District recognizes that mitigation is limited for tall structures, such as the 125-foot drilling rig (also sometimes referred to as a drilling tower). Mitigation measure AE-1a provides for landscaping, which is one of the most available and effective mitigation measures for reducing visual impacts, to the extent feasible. The District requests to be listed along with the City and the Habitat Authority reviewing and approving parties for landscape mitigation plans, pursuant to this mitigation measure. Although the height of the drilling rig makes mitigation of view impacts difficult from all vantage points, some additional tree planting along public trails and roadways would assist in reducing the number of areas from which the rig can be viewed as well as the frequency of view from those areas. The District must have input into the mitigation for impacted areas within the District's purview. LACRPOSD-117

Section 4.6.5, Cumulative Impacts and Mitigation Measures (Page 4.6-28)

Section 4.6.5, *Cumulative Impacts and Mitigation Measures*, states that "no other cumulative projects would be constructed within the same viewsheds as the proposed project." Cumulative or related projects are projects (i.e., residential, commercial, industrial, educational, etc.) within the vicinity of the proposed project site that are currently in progress or proposed for the future that, when considered with the proposed project, could potentially result in cumulative environmental impacts. The EIR should describe and detail all related projects within the geographic scope of the proposed project and should explain that all agencies in the area were contacted to formulate an accurate list of cumulative projects. The statement that "no other projects would be constructed within the *same viewshed* as the proposed project" should be supported by substantial evidence explaining where the related (past, present, or reasonably foreseeable, probable future projects) projects are located and why they cannot be seen within the same viewsheds. Several viewsheds are evaluated, so the conclusion is not intuitive. The determination of less-than-significant cumulative impacts is therefore unsubstantiated as currently written. Further, given the individual project impacts that are significant and unavoidable, if related projects are located within the same viewshed(s) or reduce the scenic value of other regional parks and recreational areas, LACRPOSD-118

implementation of the proposed project may result in significant cumulative impacts when considered with the related projects.

SECTION 4.7 TRANSPORTATION AND CIRCULATION

Overall Project Description for Traffic Analysis

The proposed project should be presented with all necessary elements including all areas where construction activities would occur. Information on where the construction staging areas are located, where construction parking areas are located, effects of construction along all the roadway segments including restriction of parking, turning movements, and reduction in number of lanes, if any, along the roadway segments as well as at intersections, should be clearly provided so that a complete estimation of project's impacts on the overall transportation system can be made. LACRPOSD-119

Project Description of Specific Components for Traffic Analysis

The Transportation and Circulation section of the updated Draft EIR and the Traffic Impact Study (Appendix E) do not provide a clear and complete enumeration of all the effects of the proposed project including additional construction trips, restricted parking, and reduced number of travel lanes where construction activities outside the project site are anticipated to occur. The specific effects of the proposed project's 2.8-mile pipeline connection to the Crimson Pipeline System via a tie-in at Leffingwell Road and La Mirada Boulevard during the construction phase have not been quantified. LACRPOSD-120

Estimation of Construction Effects

It is not clear what the extent or limits of construction effects are for the pipeline construction and tie-in to the Crimson Pipeline System components of the proposed project. The dimensions of the pipelines, their construction zones, and pipeline connections are not discussed in the updated Draft EIR, and therefore, it is not possible to estimate if restriction of travel lanes, turn lanes, and parking along Colima Road and La Mirada Boulevard would be required to facilitate that construction. Furthermore, the extent of these impacts and their level of significance cannot be estimated without a clear definition of the proposed project's components (from a traffic evaluation perspective). LACRPOSD-121

Potential Traffic Impacts

It appears that the trip generation of the proposed project's components and phases has no basis. The project description does not provide enough construction detail to estimate the magnitude of proposed project construction activities and, consequently,

estimate the level of construction worker and truck traffic. A clear sequence of all construction activities, on- and off-site, including the magnitude of construction and related time periods, should be provided so that a clear and complete evaluation of magnitude as well as the time period of construction can be properly estimated. The Transportation and Circulation section of the updated Draft EIR does not explain which work items would be conducted simultaneously (Tables 4.7-13 and 4.7-14). Additionally, the updated Draft EIR (page 4.7-15) provides an assumption for a passenger-car-equivalent (PCE) value of 2.0 for all trucks "to account for the additional space and time for turning movements and start-up that trucks take." The *Highway Capacity Manual* (HCM) provides very detailed information on PCEs. According to the HCM, PCEs are dependent on a number of factors, the primary ones being the type of terrain (level, rolling, or mountainous) and length of grade, and the PCEs for trucks in this area would have to be greater than 2.0 (2.5 to 3.0). Therefore, the number of PCEs used in the trip generation for the project phases are low, and consequently the trip generation and project's effects are underestimated. LACRPOSD-122

Scope of Traffic Study

It appears that the proposed project consists of construction activities along Colima Road and La Mirada Boulevard to Leffingwell Road to build the pipeline and tie-in to the existing Crimson Pipeline System. This construction would include traffic effects at numerous critical intersections, namely, Colima Road at Lambert Road, Colima Road at La Mirada Boulevard, La Mirada at Mulberry Road, and La Mirada Boulevard and Leffingwell Road. Yet these intersections have not been analyzed in the Traffic Impact Study (Appendix E) and, consequently, the Transportation and Circulation section of the updated Draft EIR. Additionally, the proposed project study area includes four Congestion Management Program (CMP) arterial monitoring locations: Whittier Boulevard at Norwalk Boulevard, Whittier Boulevard at Painter Avenue, Whittier Boulevard at Colima Road, and Colima Road at Hacienda Boulevard. The study has analyzed only two of these locations and would need to include the other two. Furthermore, two additional CMP Freeway Monitoring locations in the study area should be included in the CMP analysis. LACRPOSD-123

Figure 4.7-1, Traffic Intersections and Roadway Segment Locations

Figure 4.7-1, *Traffic Intersections and Roadway Segment Locations*, should clearly show a scale bar and the location of the proposed project site so that distances between the proposed project site and the analyzed intersections and roadway segments can be visualized. This figure should also label all of the roadways that were studied for the analysis, including Whittier Boulevard, Colima Road, Lambert Road, and Ocean View Avenue. LACRPOSD-124

Mr. Jeffery Adams
June 21, 2011
Page 41

Section 4.7.1.2, Transportation Facilities (Page 4.7-4)

The discussion of transportation facilities should include the number of lanes of traffic in each direction, as this information is essential to the analysis of traffic impacts. LACRPOSD-125

Section 4.7.1.3, Existing Conditions (Page 4.7-6)

Section 4.7.1.3 contains several inconsistencies. For example, page 4.7-6 states that traffic counts were conducted in May 2011. However, Table 4.7-1 states that counts were conducted in May 2010. All of the tables in the report reference a Traffic Study dated May 2011; however, Appendix E was revised June 2011. This inconsistency leads to a concern that the Traffic and Circulation section of the Draft EIR was not revised in accordance with revisions to Appendix E that occurred in June 2011. LACRPOSD-126

Section 4.7.1.4, Analysis of Existing Traffic Conditions (Page 4.7-8)

Tables 4.7-3, 4.7-4, and 4.7-5 provide the level of service definitions for signalized locations, unsignalized locations, and freeway segments. These tables neglect to provide the level of service definitions for roadway segments, which are a key component of the traffic analysis. In addition, the last paragraph on page 4.7-8 states that roadway segments are analyzed using a demand-to-capacity ratio instead of a volume-to-capacity ratio. However, the traffic impacts (shown in Table 4.7-7) appear to use a volume-to-capacity ratio for the analysis of roadway segments, which indicates an inconsistency with the discussed methodology, or perhaps a mislabeling in the table. This needs to be clarified. LACRPOSD-127

Table 4.7-6 contains errors with regard to the calculated level of service for intersections. At least two of the analyzed intersections have a calculated level of service in the table that does not match the Intersection Capacity Utilization (ICU). These errors could lead to a miscalculation of traffic impacts. LACRPOSD-128

Section 4.7.4, Project Impacts and Mitigation Measures (Page 4.7-15)

Page 4.7-15 of the updated Draft EIR does not provide a transparent and consistent project description that is essential for the evaluation of traffic impacts. The first paragraph states that the project would be located at a "single site," but then goes on to say that "conduit corridors would be constructed to connect and manage the site locations" (plural). This section makes no reference to construction staging or parking areas. The updated Draft EIR is not clear as to how many access roads (or driveways: see page 4.7-27) are included in the project. The second paragraph on page 4.7-15 states that Phase 1 would include "improved access roads" (plural), but then only mentions one access road from Penn Street to the proposed project site. Impacts, such LACRPOSD-129

as lane closures, that would be related to improvement of the access road(s) are not clearly evaluated in the updated Draft EIR.

Section 4.7.4.1, Project Trip Generation (Page 4.7-15)

Table 4.7-12 contains various percentages. The analysis or the table notes (or both) should better explain these. There are some that appear should add up to 100% that do not. LACRPOSD-130

Section 4.7.4.2, Distribution and Assignment of Project Traffic (Page 4.7-19)

The first sentence on page 4.7-19 states that "the spatial distribution of employee residences and destination and origin points for trucks visiting the Project Site are the primary factors affecting trip generation." This statement is incorrect. The last word in the sentence should likely be "distribution." LACRPOSD-131

Section 4.7.4.3, Parking Access and Circulation (Page 4.7-19)

This section does not adequately describe the location where equipment and employee vehicles would park during construction activities. LACRPOSD-132

This section states that Mar Vista Street currently has "large truck prohibitions posted," but the updated Draft EIR does not explain why these prohibitions are in place or what the consequences would be if these prohibitions were to be removed. Relevant issues could include the structural integrity of the road, the configuration and turning radii, the width, or the grade. In any of these cases, improvements would likely be required in order to accommodate the proposed project, and these should be specifically explained in the section. LACRPOSD-133

Section 4.7.4.5, Analysis of Future Traffic Conditions with the Project (Page 4.7-20)

The last paragraph on page 4.7-21 appears to understate the conclusions of the traffic study and provide an incorrect conclusion regarding traffic impacts. The final sentence states that "project traffic levels would not produce significant impacts, even during the construction period if trucks moving soil are required to use Penn Street." However, the updated Draft EIR states that Penn Street will not be used for construction traffic until after Phase 1, which is estimated to take one year. Impacts during Phase 1, as well as impacts at other intersections and roadway segments, would have the potential to be significant. LACRPOSD-134

Mr. Jeffery Adams
June 21, 2011
Page 43

Section 4.7.4.6, Project Impacts Mitigation Measures (Page 4.7-23)

Mitigation Measure T-1c calls for the following: "limit truck and employee access via Catalina Avenue and Mar Vista Street to no more than 40 daily round-trips and a peak hour of 12 one-way trips. No trucks shall be allowed on Catalina Avenue during Phase 2 or Phase 3." This mitigation measure is not practical from an implementation and monitoring perspective—just posting signs stating that no more than 40 daily round trips are allowed to access the site from a specific location will not effectively cause that to happen. Unless specific construction times are restricted, the limits to construction traffic along specific roadways may not be possible to implement / monitor / enforce. Furthermore, to limit Phase 2 and 3 construction employees and truck access via Catalina and Mar Vista Streets may also not be physically possible to implement and/or enforce. Given these considerations, residual significant impacts during Phases 2 and 3 would most likely remain at the intersection of Mar Vista and Catalina Streets and along the Mar Vista Street segment west of Colima Street. Residual impacts after implementation of mitigation measures (page 4.7-24) should be quantified in order to support the impact conclusions. LACRPOSD-135

There is an inconsistency in the discussion of impacts on page 4.7-24 where it states that "unless temporary measures, such as removal of traffic calming bulge-outs, are implemented along Mar Vista Street west of Colima Road, the roadway would experience significant impacts during peak hours of Phase 2 of the Project." This paragraph then goes on to explain that although temporary elimination of the bulge-outs was determined to be "infeasible," impacts could still be reduced to less than significant, which is an inconsistent conclusion leading to a concern that residual impacts would be significant and unavoidable. LACRPOSD-136

Page 4.7-25 of the updated Draft EIR states that:

> Pipeline construction along Colima Road and La Mirada Boulevard could potentially cause traffic impacts that temporarily reduce the capacity of the street system, resulting in substantial increase in the v/c ratio on roads and LOS, or congestion at intersections; inhibit emergency response by paramedic, fire, ambulance, and police vehicles; affect existing roadside parking; and inhibit access to private and commercial driveways.

Section 4.7 goes on to list Mitigation Measure T-2 with an extensive list of 14 different traffic management measures. This impact statement and the recommended mitigation measure lack specificity. First of all, there is no quantitative analysis of construction traffic associated with the pipeline construction in Section 4.7, *Transportation and Circulation*, of the updated Draft EIR or Appendix E to arrive at these broad impact and mitigation measures' effectiveness conclusions. The duration and extent of construction LACRPOSD-137

activities on-street along Colima Road and La Mirada Boulevard including critical intersections affected need to be clearly stated.

Additionally, both qualitative and quantitative enumeration of the effects on travel lanes, turn lanes, use of parking spaces, availability of vehicular and pedestrian access to affected properties along these streets, bus stops, bus operations, and then identification of significant impacts at specific locations along these streets and intersections due to the same, need to be provided. LACRPOSD-138

Finally, an evaluation of these specific mitigation measures to address the specific traffic and parking impacts noted above should be provided, along with a detailed effectiveness analysis. Without clear enumeration of the location, magnitude, and significance of specific types of impacts (traffic, parking, bus stop, pedestrian, bike, and access impacts) and the effectiveness of the specific mitigation measures' elements in alleviating those impacts, a blanket determination of the residual level of significance cannot be made in such broad terms, particularly for a 2.8-mile pipeline construction element that potentially could affect several major arterials and CMP intersections. A nexus between impacts, mitigation measures, effectiveness, and, consequently, the residual significant impacts should be established in the EIR. Section 4.7.4.5 does not provide a clear definition or specification of impacts and corresponding mitigation measures associated with the 2.8-mile pipeline construction element of the proposed project. In addition, the mitigation measure is inconsistent with regard to road closures. Under measure (1), it states that "roads will not be closed," but then it goes on to say that "any temporary street closures shall occur in coordination with city staffs." Impacts related to road closures have not been evaluated in the EIR. LACRPOSD-139

Section 4.7.5, Cumulative Impacts and Mitigation Measures (Page 4.7-26)

This section (similar to the Project Impacts and Mitigation Measures Section) does not include the effects of one of the proposed project elements, Pipeline Construction along Colima Road and La Mirada Boulevard, in the assessment of cumulative impacts and, consequently, the mitigation measures. The study should address the cumulative effects including all the potential effects (lane closures, restriction of turns, parking, etc.) of all components of the proposed project. Therefore, the cumulative impacts are underestimated. The cumulative impacts evaluation needs to be updated to include all the relevant comments noted on the project impacts section, above. LACRPOSD-140

This section includes mitigation measures at various significantly impacted intersections identified in the study. The mitigation measures offer payment of fair-share contribution towards widening and improving intersections, street segments, signal system improvements, and lane restriping improvements. The physical feasibility of these improvements has not been established, although the mitigation measure descriptions

do state whether a specific improvement can be implemented within existing right-of-way or not. However, there is no discussion or preliminary conceptual analysis of the extent of width and length of physical widening and, consequently, the amount of right-of-way needed. The actual potential availability of this right-of-way need and, hence, the improvement's technical feasibility, has not been established. In other words, the potential possibility of implementation of these mitigation measures has not been determined or assessed in this section. The potential secondary impacts, if any, (e.g., land use or right-of-way) resulting from these cumulative mitigation measures have not been addressed in the updated Draft EIR. The first paragraph under Table 4.7-18 states that "implementing mitigation measures T-1a through T-1d would also reduce the cumulative impacts to less than significant." However, Table 4.7-18 indicates that residual impacts would be potentially significant until full improvement installed. This inconsistency leads to the conclusion that residual cumulative impacts would be significant until after incorporation of the fair share mitigation measures, which may or may not be feasible. LACRPOSD-141

SECTION 4.8 HYDROLOGY AND WATER RESOURCES

General Comments

The updated Draft EIR should include a jurisdictional delineation for drainages and wetlands that are potentially subject to the jurisdiction of the California Department of Fish and Game for the U.S. Army Corps of Engineers; where such effects are identified to be significant, mitigation should be provided to demonstrate that there is no net loss of habitat functions of values. The updated Draft EIR should include sufficient substantial evidence to demonstrate the feasibility of the proposed mitigation plan and demonstrate whether the proposed project would have any net effects on jurisdictional waters. LACRPOSD-142

This section lacks a hydrology study that would compare existing and proposed drainage patterns and flow rates required for grading evaluation on the access road, pads, well cellars, and trenching for utilities. This analysis is necessary because the location and sizing of potential mitigation measures, such as detention basins, can affect the project description and project boundary and can invoke other environmental impacts. LACRPOSD-143

A project hydrology study may demonstrate the need for additional storm drain facilities to ensure existing and proposed flow rates and velocities are similar and do not create a significant impact. LACRPOSD-144

Mr. Jeffery Adams
June 21, 2011
Page 46

This section lacks a 100-year flood hazard area map with a federal Flood Hazard Boundary or other flood hazard delineation boundaries with relation to the project footprint. LACRPOSD-145

The updated Draft EIR does not address questions (i) or (j) in CEQA Guidelines Appendix G, Section IX concerning dangers associated with failure of a levee or dam or inundation by a seiche, tsunami, or mudflow. LACRPOSD-146

Project impact numbers WR.1, WR.2, WR.3, WR.4, and WR.6 describe the phase of the impact to occur during drilling, testing, and construction. However, because the project will exist in perpetuity, the phase of "postconstruction" should be added to the list of project phases for these project impacts. LACRPOSD-147

Section 4.8.4, Impact No. WR.2 (Page 4.8-13)

This section describes the grading for access road, pads, and well cellars. However, because the project site is in a hillside area and because there will be trenching for water and oil line pipes, the trenching for utilities should be noted as one of the construction activities. This is important because during construction of utility trenches in hillside areas, these trenches can become conduits for storm runoff and can create large amounts of erosion. Potential mitigation measures during construction of trenches should be included and could consist of installation of check dams, additional desilting basins, and possibly temporary redirection of flow. LACRPOSD-148

It should also be noted that changing the hydrologic boundaries and redirecting runoff can also result in higher runoff volume and higher peak flows. This is important because it may be a more significant factor for this project, rather than the minimal increase in impervious area. The discussion of hydrology impacts should include analysis of this issue. LACRPOSD-149

Section 4.8.4, Impact No. WR.4 (Page 4.8-16)

Significant and unavoidable impacts to surface and groundwater quality could occur from a rupture or leak of crude oil from drilling operations or from pipelines or other infrastructure. These impacts could not be mitigated to insignificance. Nonetheless, mitigation measure should include elaborating on the design and operational features for prevention of containment loss, pipeline wall thickness, valve placement and pipeline operational response, corrosion prevention methods, and operational staff training and competence. LACRPOSD-150

Mr. Jeffery Adams
June 21, 2011
Page 47

SECTION 4.9 CULTURAL RESOURCES AND ARCHAEOLOGY

General Comments

In general, the Cultural Resources and Archaeology section of the updated Draft EIR provide a relatively thorough prehistoric and historic context detailing the prehistoric chronology and the history of oil production in Whittier and identification of cultural resources present at the proposed project site. An appropriate methodology to characterize cultural resources was employed, incorporating records and literature searches and a Phase 1 pedestrian survey. LACRPOSD-151

Certain deficiencies in the section were noted and are explained in the following discussion.

Section 4.9.1.3, Records and Literature Search (Page 4.9-4)

Explanations or maps of the various geographic descriptors, including the one-mile radius record "search area," "project area," "project site," and "study area," are needed, particularly to support the claim that previously recorded historical resources do not have the potential to be affected by the proposed project. Similarly, a map of these resources, if not archaeological and therefore confidential in nature, would provide evidence for this dismissal from consideration. LACRPOSD-152

Section 4.9.1.5, Sacred Lands Search (Page 4.9-8)

Coordination with the Native American Heritage Commission was completed and is summarized in the updated Draft EIR section, although no corresponding impact analysis is provided in the updated Draft EIR. Two tribal representatives raised issues that are not addressed. LACRPOSD-153

Section 4.9.4, Project Impacts and Mitigation Measures (Page 4.9-10)

This subsection is inconsistent with Section 2.0, Project Description, of the updated Draft EIR (subsection 2.3 on page 2-12) and incorrectly describes the proposed project as entailing construction during two phases, the Drilling and Testing Phase and the Design and Construction Phase. According to Section 2.0, the proposed project has a third phase, Operations and Maintenance, during which drilling of up to 57 wells, in addition to other activities, may occur. LACRPOSD-154

This subsection states that project construction could physically alter or destroy historic features that are contributing features of the historic Whittier Oil Field, which has been recommended eligible for listing in the National Register of Historic Places (NRHP) and

California Register of Historical Resources (CRHR) and is considered a historical resource as defined in the California Environmental Quality Act (CEQA). The subsection states that removal of these features would be a significant impact under CEQA, requiring mitigation. The 2007 Final Initial Study / Mitigated Negative Declaration for the Puente Hills Landfill Native Habitat Preservation Authority's Resource Management Plan[35] provides a mitigation measure to reduce potential impacts to less than significant: LACRPOSD-155

> Mitigation Measure CULT-1: If the Habitat Authority finds it necessary to alter any of the qualities of the historic Whittier Oil Field (19-003341), such as the roads, well pads, or markers that make it eligible for the California Register, the Habitat Authority shall retain a qualified historian to document the resource prior to any grading activities within the oilfield. This documentation should include, but is not limited to, additional research, detailed mapping, HAER level photo documentation, and possible interviews with persons knowledgeable as to the workings of the historic oil field.

However, the subsection (page 4.9-11) asserts that "the Project as currently proposed involves a limited number of alterations of well pad locations within the historic Whittier Oil Field and construction of roads and pipelines. As such, this stage of the proposed Project does not require Historic American Engineering Record [HAER] documentation."

- It is unclear what "this stage" of the project means. The updated Draft EIR analyzes all three phases of the proposed project. Impacts to cultural resources need to be considered for the entire project and mitigated.

- There is no evidence to support the rejection of the accepted mitigation measure, CULT-1. The section does not identify, locate, characterize the significance of, or quantify the contributing features of the historic Whittier Oil Field. Without this data, there is no justification of the statement that the potential destruction of some features is so limited as to not require the accepted mitigation measure in order to reduce the impact to less than significant. The reference elsewhere in both documents to the 494 well pad locations listed in the California Division of Oil, Gas, and Geothermal Resources (DOGGR) database does not establish how many of those well pad locations are intact or are contributing features to the historical resource. LACRPOSD-156

- CEQA requires adoption of all feasible mitigation measures. There is no evidence that the accepted mitigation measure is infeasible.

[35] Puente Hills Landfill Native Habitat Preservation Authority. 2007. *Resource Management Plan.* Irvine, CA: LSA Associates, Inc.

Mr. Jeffery Adams
June 21, 2011
Page 49

In addition to documentation, Phase 3 Data Recovery, consistent with Section 21083.2 of CEQA, should be required prior to construction for areas of the historical resource that will be directly impacted, unless it can be established that all important scientific data has been recovered through documentation. LACRPOSD-157

The subsection describes Impact CR.1 as impacts to historical resources, specifically the Whittier Oil Field; Impact CR.2 as unanticipated disturbance to human remains; and Impact CR.3 as unanticipated disturbance to paleontological resources. Potential impacts related to unanticipated discovery of prehistoric archaeological resources are not identified or mitigated. LACRPOSD-158

Correspondence with Native American contacts indicated that the proposed project area is culturally sensitive, containing sacred sites and resources. The potential for the proposed project to impact these resources is not discussed, nor is any mitigation, if warranted, recommended. LACRPOSD-159

Section 4.9.5, Cumulative Impacts and Mitigation Measures (Page 4.9-13)

CEQA requires that projects cannot be piecemealed and that the entirety of a project must be considered. This subsection states that impacts to cultural resources from the first phase of the project, if mitigation is implemented, would not add to cumulative impacts but that subsequent phases could potentially result in significant cumulative impacts. In addition, Section 4.9.4 states that impacts to cultural resources would be less than significant with the implementation of mitigation. These conclusions are inconsistent. If the project may result in cumulative impacts to historical resources, this should be clearly stated. LACRPOSD-160

The discussion acknowledges the potential for cumulative impacts to previously unrecorded prehistoric archaeological resources; however, as pointed out in the preceding discussion of Section 5.9.4, no mention is made of the potential for project impacts to unknown archaeological resources. LACRPOSD-161

SECTION 4.10 WASTEWATER

The District has no substantive comments on this section of the updated Draft EIR.

SECTION 4.11 LAND USE AND PLANNING

General Comments

- Below are observations and concerns regarding the analysis found within the updated Draft EIR. Overall, the Land Use and Planning section of the updated

Draft EIR lacks specificity and proper detail to make an appropriate evaluation of the proposed project's impact. The Updated Draft EIR land use assessment could be strengthened in the following areas: LACRPOSD-162

- More analysis with respect to Proposition A
- Stronger land use analysis
- More consistent conclusions regarding project consistency

The following is a list of several land use issues that should be reconsidered by both the project applicant consultant team and the City of Whittier.

Public Park Preservation Act of 1971 (Public Resources Code Section 5400-5409)

The Public Park Preservation Act of 1971 should be added to the regulatory section and evaluated in the updated Draft EIR. According to the Public Park Preservation Act of 1971, a "public park" includes only a park operated by a public agency. Per Section 5400.6 of the Act, "operating entity" means the entity owning the park land and the facilities thereon. The updated Draft EIR should demonstrate how the proposed project complies with the Park Preservation Act or how it is exempt from such provisions. LACRPOSD-163

Proposition A

The updated Draft EIR Land Use and Planning section does mention Proposition A briefly in the background and within the policy consistency analysis sections. However, it is recommended that Proposition A receive its own section when describing the background policies surrounding the proposed project.

The following sections of Proposition A should be considered:

> (1) To maintain and operate in perpetuity the property acquired, developed, improved, rehabilitated, or restored with the funds. With the approval of the granting agency, the recipient or its successors in interest in the property may transfer the responsibility to maintain and operate the property in accordance with this Section.
>
> (2) To use the property only for the purposes of this order and to make no other use, sale, or disposition of the property, except as provided in subdivision (b) of this Section 16.[36]

LACRPOSD-164

[36] County of Los Angeles. Accessed 8 November 2010. Order of the Board of Supervisors of the County of Los Angeles Initiating Proceeding for the Formation of the Los Angeles County Regional Park and Open Space District, Special Election, Proposition A (1992). Available at: http://openspacedistrict.lacounty.info/cms1_033687.pdf

> (4) (b) If the use of the property acquired through grants pursuant to this order is changed to one other than a use permitted under the category from which the funds were provided, or the property is sold or otherwise disposed of, an amount equal to the (1) amount of the grant, (2) the fair market value of the real property, or (3) the proceeds from the portion of such property acquired, developed, improved, rehabilitated or restored with the grant, whichever is greater, shall be used by the recipient, subject to subdivision a of this Section, for a purpose authorized in that category or shall be reimbursed to the Parks Fund and be available for appropriation only for a use authorized in that category. If the property sold or otherwise disposed of is less than the entire interest in the property originally acquired, developed, improved, rehabilitated or restored with the grant, an amount equal to the proceeds or the fair market value of the property interest sold or otherwise disposed of, whichever is greater, shall be used by the grantee, subject to subdivision (a) of this Section, for a purpose authorized in that category or shall be reimbursed to the Parks Fund and be available for appropriation only for a use authorized in that category.[37]

For the District to assess the impacts of the proposed project on property acquired with Proposition A funds, please provide one figure depicting the boundaries of the proposed project, the boundaries of property acquired with Proposition A funds, the boundaries of the Preserve and all the area impacted by the proposed project especially with respect to biological resources, noise and vibration, air quality, aesthetics, odor and recreation.

Land Use Analysis

The updated Draft EIR did not focus the analysis of the potential impacts to land uses with the implementation of the proposed project's crude oil and gas pipelines. The proposed project should have evaluated the potential incompatibility of oil field development with the specific land uses and zoning along the proposed oil and gas pipeline. Sensitive receptors along the pipeline should have been identified, and the potential risk of upset and land use and zoning incompatibility should have been analyzed. LACRPOSD-165

Section 4.11.3, Significance Criteria (Page 4.11-20)

The significance criteria of whether a proposed project would "physically divide an established community" is not adequately addressed in the updated Draft EIR. Under

[37] County of Los Angeles. Accessed 8 November 2010. Order of the Board of Supervisors of the County of Los Angeles Initiating Proceeding for the Formation of the Los Angeles County Regional Park and Open Space District, Special Election, Proposition A (1992). Available at: http://openspacedistrict.lacounty.info/cms1_033687.pdf

Section 4.11.4 (page 4.11-20), the updated Draft EIR states, "The impact analysis does not include a threshold from the CEQA guidelines regarding whether the Project would physically divide an established community because the proposed project would not affect that threshold." LACRPOSD-166

This analysis is inadequate for the updated Draft EIR. The updated Draft EIR should show, with substantial evidence, why the project would not divide an established community. The statement should be supported by a brief analysis describing the project location, the surrounding land uses and communities, and whether or not the project would physically divide a community (i.e., the development would displace homes). If this CEQA checklist question was eliminated from consideration in the Initial study, the updated Draft EIR should inform the reader about the Initial Study.

Consistency Analysis

In several occasions throughout the updated Draft EIR, many of the conclusions are noncommittal with regard to project consistency with the General Plan's goals and policies. All conclusions that have the words *could*, *may*, or *might*, should have these words changed to *will* or *would* for consistency. In addition, the word *would* indicates a conditional definite, while the words *could* or *may* only indicate a possibility. LACRPOSD-167

As required by Section 15126.2(a) of the State CEQA Guidelines, direct and indirect significant effects of the project on the environment should be clearly identified and described, giving due consideration to both the short-term and long-term effects. The following sections are quoted from the updated Draft EIR to illustrate this situation and the noncommittal words have been shown in bold and italics. LACRPOSD-168

Policy 1.9 Consistency Analysis (Page 4.11-29).

"The proposed project would implement a number of noise reducing measures to mitigate potential impacts, including a 30-foot tall sound barrier surrounding the drilling area and wood timbers and sleepers on pipe racks and at the pipe AE-door ramp to minimize metal-on-metal contact. Although the mitigation measures developed for Section 4.5, Noise and Vibration, would reduce the noise-related impacts to less than significant levels, the proposed project ***may*** remain inconsistent with this policy."[38] LACRPOSD-169

Policy 1.4 Consistency Analysis (Page 4.11-32). "On October 28,2008, the City awarded a lease to Matrix that could permit resumption of oil and gas extraction from the site. Mitigation measures for the proposed project require restoration of the site at LACRPOSD-170

[38] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-29.

Mr. Jeffery Adams
June 21, 2011
Page 53

the end of the economic life of the oil field. Therefore, the proposed project ***could*** be found consistent with this policy."[39]

Policy 1.5 Consistency Analysis (Page 4.11-32). "Mitigation measures developed for these sections would minimize these potential impacts. Oil production within the preserve would also contribute to funds used for the preservation of the area, which would otherwise see a curtailment of funds upon closure of the Puente Hills Landfill slated for 2013. The proposed project ***could*** be found consistent with this policy."[40] LACRPOSD-171

Policy 3.2 Consistency Analysis (Page 4.11-33). "Mitigation measures developed for these sections would minimize these potential impacts. However, some significant and unmitigable impacts would remain in Aesthetics and Visual Resources, and Biology. Therefore, the proposed Project ***could*** be found potentially inconsistent with this policy."[41] LACRPOSD-172

Policy 4.6 Consistency Analysis (Page 4.11-35). "City staff is in contact with the District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit until a release from protected area status is obtained from the District. Therefore, if issues are resolved with the District, the proposed Project ***should*** be consistent with this policy."[42] LACRPOSD-173

Policy 7.4 Consistency Analysis (Page 4.11-37). "Additional acreage would be temporarily disturbed to construct the sites and pipelines, exclusive of the fuel modification zone. Although the proposed mitigation measures would minimize the impacts on various ecological and recreational resources, the proposed project ***may*** be found inconsistent with this policy."[43] LACRPOSD-174

Policy 4.1 Consistency Analysis (Page 4.11-39). "The proposed project would include development of a Truck Loading Facility at the Project Site. Truck queuing would be LACRPOSD-175

[39] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-32.

[40] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-32.

[41] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-33.

[42] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-35.

[43] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-37.

discouraged. Therefore, the proposed project ***could*** be found consistent with this policy."[44]

SECTION 4.12 FIRE PROTECTION AND EMERGENCY SERVICES

General Comments

The updated Draft EIR states:

> The Project Site and the City of Whittier are within the County of Los Angeles Fire Department (LACoFD) jurisdiction. The LACoFD provides both prevention services (e.g., inspections, permits, and drills) and emergency response. In terms of inspections, the County currently inspects wells and facilities at Honolulu Terrace within the City. (p. 4.12-1)

The updated Draft EIR further states: LACRPOSD-176

> In 1991, the LACoFD merged with the Department of Health Services' Hazardous Materials Control Program to form the Health Hazardous Materials Division (HHMD). In 1997, the HHMD became a Certified Unified Program Agency to administer the following programs within Los Angeles County: the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the California Accidental Release Prevention Program (Cal-ARP), the Aboveground Storage Tank Program, and the Underground Storage Tank Program. (p. 4.12-2)

Section 10 of the updated Draft EIR, Agencies and Individuals Consulted during EIR Preparation, indicates that a Captain at the LA County Fire Station 28, Battalion 8, was consulted during preparation of the EIR. The Fire Protection and Emergency Services Section of the EIR should reference this communication. Contact with the HHMD is not cited in Section 10 of the updated Draft EIR.

Section 4.12.3, Significance Criteria (Page 4.12-16)

The CEQA Guidelines do not identify significance criteria for fire protection and emergency response services. However, CEQA does have related significance criteria in the Public Services section of the CEQA Checklist:

[44] City of Whittier. June 2011. *Whittier Main Oil Field Development Project Environmental Impact Report Public Draft.* Whittier, CA, p. 4.11-39.

Mr. Jeffery Adams
June 21, 2011
Page 55

> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following five public services: (1) fire protection....

This question should have been added to the list of set criteria in the significance criteria for fire protection and emergency services impacts. The updated Draft EIR is required to provide reasoning for eliminating this criterion from consideration. LACRPOSD-177

The updated Draft EIR did not disclose impacts and mitigation measures of the significance of construction impacts to fire and other emergency protection. These impacts will need to be disclosed and, if necessary, mitigated. LACRPOSD-178

Section 4.12.4, Project Impacts and Mitigation Measures (Page 4.12-17)

The mitigation measures disclosed do not address every significant impact indicated in the section. No mitigation measure was included to mitigate for the potential to have inadequate equipment spacing on the proposed project site. If inadequate equipment spacing occurs, then there would be a significant impact. Mitigation measures should be disclosed to mitigate this impact to fire protection and emergency services. Also, if additional grading is required to resolve the inadequate equipment spacing, additional impacts would occur that have not yet been evaluated in the updated Draft EIR. LACRPOSD-179

No mitigation measure was included to mitigate for the exclusion of fire detection and prevention systems, such as foam systems on crude oil storage tanks, flame detection, and flammable gas detections. Mitigation measures should be disclosed to mitigate this impact to fire protection and emergency services. LACRPOSD-180

Section 4.12.6, Cumulative Impacts and Mitigation Measures (Page 4.12-20)

Under CEQA, cumulative impacts are defined as two or more individual effects that, when considered together, are considerable, or which compound or increase other environmental impacts. CEQA also states that whereas a lead agency need not consider that effect significant, it shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. The updated Draft EIR did not adequately explain why the cumulative impacts to fire protection and emergency services were not cumulatively considerable. The updated Draft EIR states, "The County of Los Angeles Fire Department (LACoFD), the primary responder for the Project Site, maintains several fire stations located proximate to the Project Site, which LACRPOSD-181

should be able to provide sufficient fire protection services for the proposed Project and cumulative impacts would be less than significant" (p. 4.12-20). This statement must be tied to substantial evidence, in the very least a communication with the LACoFD stating this is the case.

SECTION 4.13 PUBLIC SERVICES AND UTILITIES

General Comments

This section of the updated Draft EIR is lacking in sufficient information on which to base conclusions of the availability of water supplies and the availability of landfill space. For both water and landfills, additional information on baseline and future conditions is needed to better support the conclusions. LACRPOSD-182

Section 4.13.4, Project Impacts and Mitigation Measures

Impact No. PS.1 (Page 4.13.6)

The analysis provided in this section appears to lack conformity. The section before (4.13.3, Significance Criteria, page 4.13-5), establishes a threshold of 5 tons per week as the level of significance. However, in Section 4.13.4, Impact No. PS.1, it is not clear if the project impacts would be below that level of significance due to a different standard of measurement.

When discussing the impacts during the drilling and testing phase, the paragraph states:

LACRPOSD-183

> During the Drilling and Testing Phase, it is estimated that each well drilled would generate ***40-cubic yard*** container of trash that would be disposed of in a landfill.... Drill cuttings from each well... would generate an estimated ***660 cubic yards of this material.***

The figures provided in this paragraph deal with volume, where the level of significance deals with weight. These figures should be configured to weight to provide conformity of analysis. Moreover, the updated Draft EIR should also indicate the total estimate of wells that would be drilled and multiply it with the total weight of trash that each well would produce and establish that it would be under the level of significance.

Impact No. PS.2 (Page 4.13.7)

The analysis provided in this section lacks important data to provide a sound conclusion. When discussing the total water impacts, establishing a significance

threshold for water impacts should also be mentioned in both this section and the previous section (**4**.13.3, Significance Criteria, Page **4**.13-5). LACRPOSD-184

When discussing the impacts of water usage, the updated Draft EIR states:

> During the drilling phase, up to 4,500 gallons would be used per day. The construction phase would require 2,000 gallons per day during grading and earth moving, 10,000 gallons per day during pipeline installation, and 1,000 gallons per month during facility construction. Up to 1,300 gallons per day would be needed during the operations phase. The proposed Project would not require a new offsite water supply or distribution facility, expansion of existing facilities, or new or expanded water entitlements.

Before concluding that new water supplies would not be needed, the analysis should compare the total amount of water available and show how insignificant the water usage would be in comparison to available supplies.

Section 4.13.4.1, Other Issue Area Mitigation Measure Impacts (Page 4.13-8)

The two paragraphs in this section appear to be contradictory. The first paragraph is likely a boilerplate statement to introduce the topic, but it appears to say that the mitigation measures in other chapters could have impacts to public services and utilities. The opposite assertion is made in the second paragraph. The first sentence should be rephrased to clarify the meaning. LACRPOSD-185

Section 4.13.5, Cumulative Impacts and Mitigation Measures (Page 4.13-8)

The types of related projects mentioned, residential, hotel, and a hospital, could generate large daily demands for water. However, it is likely that the proposed project's water usage would be small and less than significant and would not contribute a cumulatively significant impact. Nevertheless, information on baseline and future conditions water supply and demand is needed. LACRPOSD-186

SECTION 4.14 RECREATION

General Comments

Impacts or effects, as defined by CEQA, include direct or primary effects that are cause by the project and occur at the same time and place. The updated Draft EIR failed to disclose the overall impacts from construction of the access roads to recreational users on the trails. LACRPOSD-187

Mr. Jeffery Adams
June 21, 2011
Page 58

The proposed project impacts disclosed in the updated Draft EIR do not address how the proposed project would potentially impact recreation in regards to meeting the goals of the Strategic Management Asset Plan for 2020. LACRPOSD-188

The proposed project would not meet the goals of the Strategic Management Asset Plan for 2020. Mitigation measures should be included to ensure the recreation goals of the Strategic Management Asset Plan for 2020 are met. LACRPOSD-189

The impacts to recreation are significant and unavoidable. Under CEQA, the project must implement mitigation measures to avoid significant and unavoidable impacts. The updated Draft EIR does not adequately mitigate the significant and unavoidable impacts. In order to avoid significant and unavoidable impacts, at the very least, the project should include mitigation measures to address construction and maintenance of more than one pedestrian trail, mitigation measures that specify actions the City of Whittier will take to maintain trails for recreational uses, and mitigation measures to address construction and maintenance of multiuse trails. LACRPOSD-190

Section 4.14.2.1, Los Angeles County Department [of] Parks and Recreation (Page 4.14-6)

The updated Draft EIR does not provide the goals of the County of Los Angeles Department of Parks and Recreation's Strategic Management Asset Plan for 2020 that the proposed project would need to comply with. LACRPOSD-191

Section 4.14.4, Project Impacts and Mitigation Measures (Page 4.14-10)

The updated Draft EIR states, "The proposed Project would not include new recreational facilities, would not require the reconfiguration of recreational trails…." In Figure 4.14-2, Arroyo Pescadero Trailhead, the proposed project site sits on the trails. In addition, the updated Draft EIR states, "Trails may be temporarily closed to recreational use during these activities for up to 6 months." The updated Draft EIR does not state this is a significant adverse effect; nor does it offer mitigation measures for this impact. Closing of recreational facilities is a significant adverse impact to recreation and should be disclosed as an impact and mitigated. LACRPOSD-192

The updated Draft EIR states, "None of the recreational areas in the vicinity of the proposed project site would typically be affected higher than 70 A-weighted decibels (dBA) daytime noise levels for construction which are specified by Los Angeles County and City of Whittier guidelines as acceptable noise levels in recreational areas, such as parks." However, without the project, no construction noise would occur, and the noise on the trails would be significantly lower than 70 dBA. This impact was not disclosed and mitigated. LACRPOSD-193

The updated Draft EIR states, "Operational noise generated from truck traffic to and from the Truck Loading Facility would not be significant due to the sporadic nature and low frequency of truck trips." However, the access routes and crude oil and natural gas sales pipelines are near and on the trails. The updated Draft EIR did not disclose how loud the trucks would be from the trails and how far away the trucks would be from the trails. This impact was not disclosed and mitigated. LACRPOSD-194

SECTION 4.15 ENERGY AND MINERAL RESOURCES

Section 4.15.3, Significance Criteria (Page 4.15-9)

The impact descriptions do not match the CEQA Appendix G Environmental Checklist. Title 14, *California Code of Regulations*, Chapter 13: "Guidelines for Implementation of the California Environmental Quality Act," Article 5, §15064.7 (a), "Thresholds of Significance," states that "a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect...." The thresholds described in the CEQA Appendix G Environmental Checklist should be used. If the City of Whittier has adopted its own thresholds as described in §15064.7, the updated Draft EIR should reference City of Whittier thresholds. LACRPOSD-195

Section 4.15.5, Other Issue Area Mitigation Measure Impacts (Page 4.15-11)

The conclusion statement with regard to other issue areas mitigation measure impacts contradicts the analysis presented. The paragraph states:

> Some mitigation measures could increase construction requirements associated with the Project, ***which could increase construction-related fuel use***.... However, none of these mitigation measures ***would increase energy use levels, and therefore they would not create any additional impacts, and additional analysis or mitigation is not required.*** LACRPOSD-196

The statement or analysis should be rewritten to provide a consistent and sound argument. Currently, the analysis states that energy usage would be expected to increase yet concludes that energy levels would not increase.

SECTION 4.16 ENVIRONMENTAL JUSTICE

Pursuant to CEQA Guidelines 15064 (d)(e) and 15131, economic or social change by itself is not to be considered a significant effect on the environment, and CEQA does not require analysis of a proposed project's potential impacts on population growth and housing supply. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the

physical change is significant. Because the proposed project and its alternatives do not, directly or indirectly, induce substantial population growth, nor displace substantial numbers of existing housing or people, necessitating the construction of replacement housing, no comments are provided on this section.

SECTION 5.0 WHITTIER PROJECT ALTERNATIVES ANALYSIS

Pursuant to CEQA Guidelines, Section 15126.6, an EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

General Comments

This section appears inadequate in comparison to Section 6.0, Comparison of Proposed Project and Alternatives. Section 5.0 provides a brief analysis and synopsis for each of the alternatives. Some impacts with regards to the proposed project are mentioned (biological), whereas other impacts (aesthetics, noise, land use, hazards, etc.) are not mentioned. It is recommended that all impacts with regards to the alternatives be outlined or mentioned in this section, whereas Section 6.0 could focus on mitigation measures for these project impacts. LACRPOSD-197

This section lacks hydrology studies for viable alternative projects to compare existing and proposed drainage patterns and flow rates. While CEQA does not require the same level of detail in the analysis of alternatives' impacts as it does the project's impacts, at least a preliminary or generalized hydrology analysis is necessary because the magnitude and location of new roadways and truck loading facilities, and the sizing of potential mitigation measures such as detention basins, can vary from project to project. This could affect the project description and project boundary and could invoke other environmental impacts. LACRPOSD-198

The full range of environmental impacts associated with alternative pipeline alignments has not been described and evaluated. For example, potential crossing utility conflicts may add impacts. This is important because utility relocations may have secondary impacts such as temporary impacts to traffic. LACRPOSD-199

The updated Draft EIR alternatives analyses do not provide any quantitative evaluation of the specific transportation related impacts of the various components of the proposed project, although some of these alternatives have been designed for their construction traffic to utilize different access points as well as different external streets to reach the regional street system. Some of the conclusions as they relate to traffic impacts are LACRPOSD-200

subjective since no quantitative evaluation of the affected roadways that are different for some of these alternatives than those of the proposed project (since access roadways to the facilities on-site would be different for these alternatives compared to the proposed project) are provided. While CEQA does not require the same level of detail in the analysis of alternatives' impacts as it does the project's impacts, at least a discussion of the potentially impacted intersections and their current level of service, any changes in the trip distribution or generation, and so forth would make the discussion more meaningful and allow a more reasoned evaluation of alternative traffic impact. As currently written, there is no basis for making conclusions since there is no description of level or magnitude of construction activity associated with these alternatives, in comparison to the proposed project and consequently the number of trips that these alternatives produce and their effect on the access and other external roadway system elements. More information relative to specific potentially impacted locations, their level of significance and a comparison to the proposed project's impacts at the same or different locations should be provided in an updated alternatives analysis section of the EIR.

Section 5.1.2, Alternative Drilling and Production Sites (Page 5-5)

The analysis did not disclose the significant and unavoidable impacts from the proposed project that would be lessened with implementation of the alternatives. LACRPOSD-201

The updated Draft EIR states, "No other sites outside the Preserve were identified that could accomplish the objectives of the Project due to unsuitability" (page 5-6). However, in the next paragraph, the updated Draft EIR lists six alternative drilling and production sites. The wording makes it unclear as to what the alternatives are and what they do and do not accomplish. LACRPOSD-202

Section 5.1.2.1, Savage Canyon Landfill Site (1) (Page 5-6)

The Savage Canyon Landfill Site alternative did not disclose impacts the alternative would have as a result of access road construction and operation. These impacts must be disclosed and, if necessary, mitigated. LACRPOSD-203

The updated Draft EIR states, "Processing equipment would be installed on a graded area located above the Landfill area, some of which may protrude into the Preserve parcels.... A pipeline system running along existing Preserve roadways would connect the Landfill Site to the Colima Road oil and gas pipelines" (page 5-7). The proposed project would result in significant unavoidable impacts to biological resources. This alternative does not lessen these significant unavoidable impacts to biological resources because part of the alternative would still be located on the Preserve. This alternative LACRPOSD-204

should be reevaluated to determine that the significant and unavoidable impacts to biological resources are lessened, as required by CEQA.

This alternative does not mitigate for the significant and unavoidable impacts to biological resources as a result of the proposed project. Additionally, this alternative does not discuss recreational or noise impacts. Recreational impacts are significant and unavoidable as a result of the proposed project. This alternative should be reevaluated to determine that the significant and unavoidable impacts to biological resources and recreation are lessened, as required by CEQA. LACRPOSD-205

Section 5.1.2.2, North Site (2) (Page 5-9)

The updated Draft EIR states, "A new roadway would be constructed from the end of Hadley Street to connect to the new pad areas" (page 5-10). The analysis of this alternative does not disclose the impacts of the construction and operation of the new roadways; nor does it disclose if these impacts would be more or less than the proposed project. These impacts must be disclosed and, if necessary, mitigated. LACRPOSD-206

The updated Draft EIR states, "This alternative would reduce biology impacts since no facilities would be located within core portions of the Preserve" (page 5-11). The proposed project would result in significant unavoidable impacts to biological resources. This alternative does not lessen these significant unavoidable impacts to biological resources because part of the alternative would still be located on the Preserve. This alternative should be reevaluated to determine that the significant and unavoidable impacts to biological resources are lessened, as required by CEQA. LACRPOSD-207

This alternative does not mitigate for the significant and unavoidable impacts to biological resources as a result of the proposed project. Additionally, this alternative does not discuss recreational impacts. Recreational impacts are significant and unavoidable as a result of the proposed project. This alternative should be reevaluated to determine that the significant and unavoidable impacts to biological resources and recreation are lessened, as required by CEQA. LACRPOSD-208

Section 5.1.2.3, Upper Canada Canyon Consolidated Site (3) (Page 5-11)

The analysis of this alternative does not disclose the impacts of the construction and operation of the new roadways nor does it disclose if these impacts would be more or less than the proposed project. These impacts must be disclosed and, if necessary, mitigated. LACRPOSD-209

This alternative does not mitigate for the significant and unavoidable impacts to biological resources as a result of the proposed project. Additionally, this alternative LACRPOSD-210

does not discuss recreational impacts. Recreational impacts are significant and unavoidable as a result of the proposed project. This alternative did not lessen the significant and unavoidable impacts to recreation and biological resources as required by CEQA.

Section 5.1.2.4, Consolidated Upper Colima Road Site (4) (Page 5-12)

The updated Draft EIR states, "This alternative site could be reached from the existing access along the Arroyo Pescadero and Arroyo San Miguel Trail" (page 5-12). "Recreation impacts in the core habitat area would also be minimized since all development would occur outside the recreational areas long the Loop Trail" (page 5-13). Recreational impacts are significant and unavoidable as a result of the proposed project. This alternative would result in additional significant and unavoidable impacts to recreation because it would use the Arroyo Pescadero and Arroyo San Miguel Trail as access routes. Additionally, the Loop Trail is a recreational area. Therefore, recreation impacts would not be minimized but increased as a result of this alternative. This alternative should be reevaluated to determine that the significant and unavoidable impacts to recreation are lessened, as required by CEQA. LACRPOSD-211

The updated Draft EIR states, "The Upper Colima Site would be approximately 1,000 feet from residences, approximately 500 feet from the Murphy Ranch baseball fields, and approximately 1,600 feet from residences along Lodosa Drive east of Colima Road along the ridge" (page 5-12). The analysis of this alternative does not disclose how the alternative would impact noise and aesthetics. These impacts must be disclosed and, if necessary, mitigated. LACRPOSD-212

The updated Draft EIR states, "This alternative would move development completely out of the Preserve's designated core habitat and into the less sensitive preservation area, thereby reducing impacts to biological resources within the core habitat.... However this alternative could increase biological impacts..." (page 5-13). These are conflicting statements. The wording needs to be clear stating whether this alternative will have significant impacts to biological resources. LACRPOSD-213

Section 5.1.2.5, Historical Chevron Processing Facility Site (5) (Page 5-13)

The Historical Chevron Processing Facility Site alternative did not disclose impacts the alternative would have as a result of access road construction and operation. These impacts must be disclosed and, if necessary, mitigated. LACRPOSD-214

The updated Draft EIR states, "This alternative would generate additional recreation and visual impacts compared to the proposed Project due to its location immediately adjacent to public trails and its visibility from the hiking trails and viewpoint areas" (page

5-13). Recreational impacts are significant and unavoidable as a result of the proposed project. This alternative should be reevaluated to determine that the significant and unavoidable impacts to recreation are lessened, as required by CEQA. LACRPOSD-215

Section 5.1.3, Alternative Access Roads (Page 5-14)

The analysis does not provide adequate mitigation measures for the significant and unavoidable biological impacts that would occur in the alternatives that would result from the proposed project. LACRPOSD-216

In addition, conflicting statements when evaluating the impacts are prevalent in Section 5.1.3.1, Loop Trail Road (Pages 5-14 and 5-15). When discussing impacts that are less than the proposed project, the updated Draft EIR states, "Biological Impacts would be reduced with this alternative, since Project traffic would not use the North Access Road that travels through the core area of the Preserve." When discussing the Impacts that are More than the Proposed Project, the updated Draft EIR states, "Increased project traffic along Arroyo Pescadero area could impact wildlife corridor movements through the Colima tunnel." The impact of wildlife corridors would be an impact of biological resources. While the impacts may occur at different areas of the proposed project site, it is unclear what the true net effects of biological impacts would be. Therefore, it is unclear whether or not the alternative provided would either decrease or increase the biological impacts. This alternative should be reevaluated. LACRPOSD-217

Section 5.1.4, Alternative Pipeline Alignments (Page 5-17)

The updated Draft EIR states, "The following subsections discuss two potential pipeline alternatives" (page 5-17). There are three potential pipeline alternative subsections that follow. The numbering must be changed. LACRPOSD-218

Section 5.1.4.1, Lambert Railroad Right-of-Way Alignment (Page 5-17)

The analysis did not disclose the significant and unavoidable impacts from the proposed project that would be lessened in the alternative. This alternative should be reevaluated to determine that the significant and unavoidable impacts are lessened, as required by CEQA. LACRPOSD-219

Section 5.1.4.2, La Habra Heights Pipeline Alignment (Page 5-17)

The analysis did not disclose the significant and unavoidable impacts from the proposed project that would be lessened in the alternative. This alternative should be reevaluated to determine that the significant and unavoidable impacts are lessened, as required by CEQA. LACRPOSD-220

Mr. Jeffery Adams
June 21, 2011
Page 65

Section 5.1.4.3, Western Pipeline Alignments (Page 5-17)

The analysis did not disclose the significant and unavoidable impacts from the proposed project that would be lessened in the alternative. This alternative should be reevaluated to determine that the significant and unavoidable impacts are lessened, as required by CEQA. LACRPOSD-221

SECTION 7 OTHER CEQA-MANDATED SECTIONS

Section 7.1 Significant Irreversible Environmental Changes That Would be Caused by the Proposed Project Should It be Implemented

Although this sub-section of the updated Draft EIR is aimed at general environmental changes, the proposed project's significant unavoidable impacts should also be summarized somewhere in Section 7. LACRPOSD-222

Section 7.2.3 Precedent-Setting Action

The updated Draft EIR contends that the proposed project would reestablish past oil extraction activities in the Whittier Main Oil field and would not extend beyond past boundaries, thereby establishing that the proposed action is not a "precedent-setting action." However, with regard to the existing condition, which is the baseline under CEQA, the proposed project is a precedent setting action, in that it provides a non-open space use within an area set aside with public funds for open space uses. The proposed project would establish an industrial (oil and gas extraction) use encroaching within the Proposition A-funded Puente Hills Landfill Native Habitat Preserve. The conclusion with regard to this subsection should be that the proposed project, if approved, would have a significant unavoidable impact with regard to setting a precedent with regard to encroaching into the Proposition A-funded Puente Hills Landfill Native Habitat Preserve. Even with mitigation in the form of additional land purchased elsewhere, the proposed project would remove a substantial piece of the preserve along the preserve's southern boundary, modifying the boundary line substantially in this location. Further, this precedent-setting action could be growth inducing to the extent that other applicants may be encouraged to apply for further encroachments for this type of use or other uses, should this project be successful. LACRPOSD-223

Section 7.2.4 Development of Open Space

The updated Draft EIR states that, "development of open space is considered growth inducing when it encroaches upon urban-rural interfaces or in isolated localities. The proposed Project Site is within the Puente Hills Native Habitat Preserve, which is an LACRPOSD-224

open space area that includes the Arroyo Pescadero Trailhead. Therefore, development of the proposed Project would be considered growth inducing under this criterion." The District agrees with this conclusion.

Section 7.3 Known Areas of Controversy or Unresolved Issues

The District agrees that the cited areas of controversy are indeed controversial and wishes to work to resolve these issues in the preservation of the Preserve and the legal mandate of Proposition A. LACRPOSD-225

Additionally, this Section should include a reference to the lawsuit currently pending in Los Angeles County Superior Court, Case No. BS 128995, that is brought against the City, Matrix, and the District related to the proposed project by the Open Space Legal Defense Fund. LACRPOSD-226

SECTION 8 SUMMARY OF MITIGATION MEASURES AND MITIGATION MONITORING PLAN

This section of the updated Draft EIR is a compilation of the individual Mitigation Measures and Mitigation Monitoring Plans (MMPs) contained in each issue area section of the EIR. Comments on the MMP are provided within the discussion of each issue area, above. The District reminds the City of a reoccurring theme to the mitigation measure requirements, which is that the District's role is not sufficiently represented as responsible agency. LACRPOSD-227

SECTION 9 LIST OF EIR PREPARERS

Section 9 should list the City as Lead Agency along with the contact staff at the County. Section 15096 of the State CEQA Guidelines requires that "a Responsible Agency shall respond to consultation by the Lead Agency in order to assist the Lead Agency in preparing adequate environmental documentation for the project. By this means, the Responsible Agency will ensure that the documents it will use will comply with CEQA." The updated Draft EIR which is sent out for public review must reflect the independent judgment of the Lead Agency. Ultimately, the EIR is prepared by the lead agency, so the lead agency should be listed first in this section. LACRPOSD-228

SECTION 10 AGENCIES AND INDIVIDUALS CONSULTED DURING EIR PREPARATION

Section 10 lists agencies and individuals consulted during preparation of the updated Draft EIR. This list is one page long, listing only 25 persons. Many agencies and individuals appear to be missing from this list, which should be expanded to reflect all LACRPOSD-229

agencies and individuals contacted for information or consultation on the proposed project, including the appropriate regulatory and responsible agencies. For example, missing from this list is the California Department of Fish and Game; County of Los Angeles Health Hazardous Materials Division; and California Department of Conservation Division of Oil, Gas, Geothermal Resources, and the District.

Also, a distribution list for the updated Draft EIR is not provided in this section. If the appropriate regulatory and responsible agencies were not contacted or alerted regarding public review of the updated Draft EIR, the updated Draft EIR may require an extended review period to allow for review and comment by parties who were not previously notified. LACRPOSD-230

CONCLUSION

Thank you for your attention to these comments on the proposed project. Please know that we are committed to continuing to work with the City on these important issues. If you have any questions, please contact Ms. Joan Rupert of my staff at 213-351-5126 or by e-mail at jrupert@parks.lacounty.gov.

Sincerely,

Russ Guiney
Director, Parks and Recreation

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

RECEIVED
JUN 14 2011
Community Development

June 14, 2011

Mr. Jeff Adams, Planner
CITY OF WHITTIER
13230 Penn Street
Whittier, CA 90602

Re: SCH#2010011049 CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the: **"Matrix Whittier Main Oil Field;"** Located in the Puente Hills Landfill area; Los Angeles County, California

Dear Mr. Adams:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources. The NAHC wishes to comment on the above-referenced proposed Project.

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC Sacred Lands File (SLF) search resulted in; **Native American cultural resources were not identified** within the 'area of potential effect (APE), based on the USGS coordinates of the project location provided.

The NAHC "Sacred Sites,' as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254.10.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to

obtain their recommendations concerning the proposed project. Pursuant to C"A Public Resources Code § 5097.95, the NAHC requests that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources. NAHC-1

Furthermore we recommend, also, that you contact the California Historic Resources Information System (CHRIS) California Office of Historic Preservation for pertinent archaeological data within or near the APE, at (916) 445-7000 for the nearest Information Center in order to learn what archaeological fixtures may have been recorded in the APE. NAHC-2

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. NAHC-3

Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'. NAHC-4

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects. NAHC-5

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code 5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code 6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places and there may be sites within the APE eligible for listing on the California Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity. NAHC-6

2

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

3

California Native American Contact List
Los Angeles County
June 14, 2011

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Gabrielino Tongva Nation
Sam Dunlap, Chairperson
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net

(909) 262-9351 - cell

Ti'At Society/Inter-Tribal Council of Pimu
Cindi M. Alvitre, Chairwoman-Manisar
3098 Mace Avenue, Aapt. D Gabrielino
Costa Mesa, , CA 92626
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-761-6417- fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address Gabrielino Tongva
,
tattnlaw@gmail.com
310-570-6567

Gabrielino-Tongva Tribe
Bernie Acuna
1875 Century Pk East #1500 Gabrielino
Los Angeles , CA 90067
(760) 721-0371-work
(310) 428-7720 - cell
(310) 587-0170 - FAX
bacuna1@gabrieinotribe.org

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Shoshoneon Gabrieleno Band of Mission Indians
Andy Salas, Chairperson
PO Box 393 Gabrieleno
Covina , CA 91723
(626) 926-4131
gabrielenoindians@yahoo.com
(213) 688-0181 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2010011049; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Matrix Whittier Main Oil Field; located in the Whittier area of Los Angeles County, California.

California Native American Contact List
Los Angeles County
June 14, 2011

Gabrielino-Tongva Tribe
Linda Candelaria, Chairwoman
1875 Century Park East, Suite 1500
Los Angeles , CA 90067 Gabrielino
lcandelaria1@gabrielinoTribe.org
626-676-1184- cell
(310) 587-0170 - FAX
760-904-6533-home

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2010011049; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for the Matrix Whittier Main Oil Field; located in the Whittier area of Los Angeles County, California.

Puente Hills Landfill
Native Habitat Preservation Authority

RECEIVED
JUL 18 2011
PLANNING DEPT.

July 14, 2011

Jeff Adams
City of Whittier, Community Development
13230 Penn Street
Whittier, CA 90602-1772

Re: Comments on the Revised Draft Environmental Impact Report (DEIR) for the Whittier Main Oil Field Development Project

Dear Mr. Adams:

The Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority) appreciates the opportunity to comment on the Revised DEIR for the Whittier Main Oil Field Development Project. By an action taken at a meeting of the Habitat Authority's Board of Directors on July 14 the following comments are submitted for your consideration.

The Habitat Authority is a joint powers authority established pursuant to California Government Code Section 6500 et seq. with a Board of Directors consisting of the City of Whittier, County of Los Angeles, Sanitation Districts of Los Angeles County, and the Hacienda Heights Improvement Association. According to our mission, the Habitat Authority is dedicated to the acquisition, restoration, and management of open space in the Puente Hills for preservation of the land in perpetuity, with the primary purpose to protect the biological diversity. Additionally, the agency will endeavor to provide opportunities for outdoor education and low-impact recreation. The Habitat Authority's jurisdiction extends within eastern Los Angeles County approximately from the intersection of the 605 and 60 Freeways in the west to Harbor Boulevard in the east.

Habitat Authority Management of Whittier Open Space

According to the Property Acquisition and Maintenance Agreement between Whittier, the Whittier Puente Hills Conservation Authority and the Habitat Authority dated August 1997, the Habitat Authority manages the City-owned open space including that upon which the Proposed Project is located. Overall, the Habitat Authority manages an almost 4,000-acre Preserve, of which 1,756 acres is owned by the City of Whittier. Additionally, the City and the Habitat Authority entered into an Agreement for Professional Services dated March 2008 at the City's request, for the Habitat Authority staff to provide professional services required to facilitate environmental surveys on the City property known as the former Chevron property.

A Joint Powers Agency created pursuant to California Government Code §6500 *et seq.*
7702 Washington Avenue, Suite C, Whittier, California 90602 • Phone: 562 / 945 - 9003 • Fax: 562 / 945 - 0303

Printed on recycled paper

The Proposed Project

The *Proposed Project* site is described as being within 1,290 acres of the Whittier Main Oil Field, and is located within the Preserve. The Proposed Project involves development of an oil and gas production and processing facility within the lease area known as the Whittier Main Oil Field. The portion of the Proposed Project located within the Preserve involves one site consisting of oil drilling pads, processing facilities, and a truck loading facility (6.9 acres, within the Preserve's Core Habitat area), new oil and gas pipelines (2.8 miles, including a portion under the Arroyo Pescadero Loop Trail), realignment of 1,800 feet of existing roads, and construction of 700 feet of new roads (approximately three miles, most of which is located within the Preserve's Core Habitat area), temporary disturbance of an additional six acres for construction, and fire-safety-required fuel modification zones (30 feet around structures, 10 feet along roads) for a total disturbed area of nearly 31 acres. On-site earth moving activities involve construction of the North Access Road (six months), site grading (six months), construction of pipelines and utilities (one year), and subsequent construction of the oil and gas plant site (two years) (p. 2-38).

Following the eight-month test drilling phase of three wells, the construction phase will last for nearly three years, followed by five years of continuous drilling during the operations phase (if all remaining wells, up to 57 wells, are drilled consecutively). However, if the drilling of the remaining wells does not occur continuously, then the impacts from drilling could occur at any time during the remaining life of the 25-year Proposed Project (which is the lease period Matrix Oil holds with the City of Whittier). Once wells are drilled, annual redrilling of wells would occur during approximately three months per year, and well workovers would occur almost continuously during the life of the Proposed Project.

The Proposed Project was called the Consolidated Central Site Alternative (Consolidated Project) in the previous DEIR released in October of 2010; it was identified as *the environmentally superior alternative*.

General Comments

The Habitat Authority would like to primarily focus attention on its suggested mitigation measures regarding wildlife movement and native wildlife nursery sites that include, but are not limited to, implementing a bobcat study, building a wildlife overpass, supporting the designation of a new and/or expanded Core Habitat zone, and studying and managing for possible limitations on recreation. Also, the DEIR inadequately described impacts to the Core Habitat. As a result several necessary mitigation measures were not incorporated into the document to minimize or avoid significant biological impacts. This caused the Proposed Project to miss its goal to, "Minimize impacts to the functioning of the Core Habitat of the Preserve." This may have also caused the Proposed Project to miss its goal to, "Minimize environmental impacts from the Project on the Preserve" (p. 2-2). There are also other impacts that are significant including but not limited to Noise/Vibration, Aesthetics, Land Use, and Recreation.

The Habitat Authority supports consideration of any alternatives that would place the Proposed Project outside of the Core Habitat or along the edge of the Preserve, and urges further analysis and consideration of an alternative with exclusive Catalina Avenue Access.

Overall, the Preserve represents a public investment of over $48.5 million dollars, of which $30.3 million was invested by the Habitat Authority for acquisition (1,880 acres) for the purpose of biological preservation. The sustainability of the Habitat Authority-owned lands is biologically dependent on the nearby and adjacent open space lands owned by the City of Whittier. The Final EIR should address the importance of keeping the biological integrity of open space land within the Proposed Project area intact so it does not diminish the biological value of adjacent land owned by the Habitat Authority or other public agencies, such as other lands owned by the City of Whittier, County of Los Angeles or Sanitation Districts of Los Angeles County.

The Habitat Authority is concerned with the long-term viability of the functioning of the Core Habitat and consequently adjacent Habitat Authority-owned properties. Enacting the mitigation measures suggested or by supporting Project alternatives discussed in this letter will help to minimize negative impacts on the Preserve.

Detailed comments on the sections of the revised DEIR are attached as Table A.

Thank you for your consideration. Please do not hesitate to contact me or Ecologist Shannon Lucas at (562) 945-9003 for discussion.

Sincerely,

Andrea Gullo
Executive Director

Attachments:

Table A: Detailed Comments

C: Habitat Authority Board of Directors
Habitat Authority Advisory Committee

TABLE A

Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority) Detailed Comments on the Revised Draft Environmental Impact Report (DEIR) for the Whittier Main Oil Field Development Project

Section 2 Project Description

The Proposed Project Schedule in the revised DEIR (Figure 2-13) should also include specific timelines for Proposed Project permits and design. PHLNHPA-1

Page 2-25 of the revised DEIR states that "all roads used within the Preserve would be paved during the Design and Construction Phase." If the Arroyo Pescadero loop trail is proposed for paving, please consider using environmentally-sensitive paving alternatives, such as a polymer emulsion product (following pipeline construction) to reduce aesthetic impacts to recreational users on the Loop Trail and to reduce run off of these roads and into adjacent habitat and drainages which could impair water quality. Please also evaluate impacts to water quality due to runoff from paved roads within the Preserve and provide specific mitigation for significant impacts. The design of these improved roads should be environmentally sensitive through elimination of side-cast materials (excess dirt) and erosion potential. PHLNHPA-2

Section 4.1 Air Quality

Mitigation measure AQ-4 requires that at least 500 trees be planted to mitigate for increases in greenhouse gas emissions, in coordination with the Habitat Authority. Please include analysis showing how this number of trees was calculated to fully mitigate for the Proposed Project's contribution of 14,720 metric tons of CO_2e (Table 4.1-11), and if it does not, additional trees should be planted to fully mitigate for this impact. The feasibility of planting this many trees on the Preserve is currently unknown, given that trees native to this area generally only occur in drainages or north-facing slopes. However, any trees needed to fully mitigate for this impact that cannot be feasibly planted on the Preserve should still be planted off-site, preferably within the Puente-Chino Hills. Funds would need to be provided for maintenance and irrigation for any trees planted, generally for five to seven years. Planting of trees may also require removal of existing non-native plants or trees, such as planting sycamore or willow trees to restore La Cañada Verde creek, which would require the removal of non-native tamarisk and possibly removal of additional non-native pepper and eucalyptus trees. In addition, the revised DEIR should investigate the carbon sequestration capacity of other native habitat types, such as coastal sage scrub or chaparral, in addition to the carbon sequestration capacity of native trees. PHLNHPA-3

Section 4.2 Biological Resources

1. **The thresholds of significance for impact analysis should be more conservative given the sensitivity of the Preserve.**

In the Habitat Authority's NOP comment letter, we suggested that more restrictive or conservative thresholds of significance would be appropriate for biological resource impacts. This would be consistent with language in the revised DEIR which notes that "loss and degradation of habitats at the Project Site could be expected to have greater adverse effects upon ecological processes and native wildlife populations than would occur in an area with comparable natural communities that does not occupy such a sensitive location within a natural Preserve" (p. 4.2-52). PHLNHPA-4

2. **Figures 4.2-1, 4.2-2, 4.2-5, and 4.2-10 need to be revised or clarified.**

Figure 4.2-1, Plant Communities, needs to be revised to show the extent of the Proposed Project and associated impacts (including fuel modification and grading). This Figure, in addition to Figure 4.2-2, should also include a scale. PHLNHPA-5

Figure 4.2-5, Trails, Oil Field Roads, and Wildlife Roadkill Data, needs to be revised to differentiate between old oil field roads (which are no longer used and have become heavily vegetated and nearly impassable), currently-used trails, and currently-non-public roads. However, since the old oil field roads and trails are not mentioned in the text, they should be considered for removal from this Figure. PHLNHPA-6

Please clarify or explain what is depicted in Figure 4.2-10. In the text on page 4.2-54 it states that "Figure 4.2-10 shows the existing old oilfield roads that provide pathways for terrestrial wildlife crossing the Arroyo Pescadero and moving from there to and from the Service Tunnel". However, the title of Figure 4.2-10 states that it is showing "Proposed Actions Relative to Roadways Leading to the Service Tunnel", despite the fact that the Figure does not show any actions relevant to the Proposed Project. PHLNHPA-7

3. **Mitigation Measure BIO-1d requiring consultation with the U.S. Fish and Wildlife Service for impacts to coastal California gnatcatchers is not adequate as it should consider requiring focused surveys one year prior to construction or monitoring during construction (pg. 4.2-47).**

Given the timing of the DEIR review and potential approval, it is likely that the Proposed Project would not be initiated until the end of 2011 at the very earliest. Since the gnatcatcher breeding season starts in February, focused surveys for the gnatcatcher will need to be conducted again in 2011 to determine whether any additional coastal sage scrub habitat in the Proposed Project vicinity is occupied and may be affected by the Proposed Project. U.S. Fish and Wildlife Service Survey Guidelines for the gnatcatcher require that surveys must be current, within one year of Proposed Project initiation (i.e. the previous breeding season). Recent results, showing breeding gnatcatchers in the Proposed Project vicinity, demonstrate the viability of the habitat in this area for breeding, and increase the likelihood of possible additional breeding in the area. This Mitigation Measure should require such surveys be conducted annually in the spring until Proposed Project initiation, and if any additional occupied habitat is found then impacts must be mitigated in accordance with the measures prescribed in the DEIR as well as through the PHLNHPA-8

consultation and Incidental Take Permit process with U.S. Fish and Wildlife Service. Although Mitigation Measure BIO-4e requires protocol surveys for gnatcatchers if construction or fuel modification occur during the breeding season (February 15 through August 31), it does not account for the possible removal of any newfound occupied habitat outside of breeding season.

In addition, the analysis of residual impacts (following implementation of mitigation measures) from Project grading, vegetation clearance for fuel modification, and increased noise is inadequate and incomplete (p. 4.2-47). The discussion of road widening and fuel modification necessary for use of the North Access Road as the Project's primary off-site transport route states that, "The existing North Access Road already passes through habitat of the federally listed California gnatcatcher, and any improvement of the road would have negligible effect upon the local area's suitability for the continued occurrence of the gnatcatcher." (p.4.2-47) This fails to take into account the fact that currently the North Access Road experiences perhaps three trips per week by one Preserve Ranger's vehicle, whereas Phases 2 and 3 of the Proposed Project would put over 316 trips per day by large construction trucks on the North Access Road. Improvements will impact the North Access Road's use by animals, and the road improvement would be to allow increased vehicle traffic (both volume and size) which could affect the suitability of the area as gnatcatcher habitat. Mitigation at a 1:1 ratio for habitat is included for noise impacts resulting from construction and drilling at the oil facility; please consider similar mitigation for related noise impacts along the North Access Road where breeding gnatcatchers have been observed since none is proposed. The Residual Impacts discussion states that impacts to sensitive nesting habitats from the increased noise generated by construction and drilling are "temporary" (p.4.2-47). Since testing, construction and drilling are expected to take over five years, and then re-drills and well workovers will potentially continue year-round, please provide a definition of "temporary." A definition will allow a more complete assessment of all the "temporary" impacts of the Proposed Project. PHLNHPA-9

4. **The analysis of impacts to wildlife movement and native wildlife nursery sites and associated mitigation measures are not adequate, and additional mitigation is suggested (Impact BIO.4; pg. 4.2-52 to 4.2-61).**

Please note that the comments presented below are organized in the same way that the impact and mitigation discussion is organized in the revised DEIR.

4a. Core Habitat Impacts

The revised DEIR does not adequately analyze impacts to the Core Habitat as it does not accurately evaluate the sensitivity of bobcats (an indicator species), particularly female bobcats, from Proposed Project impacts and the resulting significance of impacts to native wildlife nursery sites.

The revised DEIR acknowledges that the Core Habitat is "the largest contiguous area in the Preserve that is well-buffered from such 'edge effects' as lighting, noise, and

intrusions by humans and domestic animals" and that "it is an area that biologists characterize as a 'native wildlife nursery site' for such species as the mule deer and bobcat" (p. 4.2-53). The revised DEIR also notes that "during the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species" (p. 4.2-53). Also please clarify whether the Proposed Project (lease period) is 25 years or 30 years, and discuss whether and for how long the lease could be extended or renewed. PHLNHPA-10

Bobcats are More Sensitive to Disturbance

The revised DEIR's analysis of Proposed Project impacts to the Core Habitat states that impacts to the Core Habitat will be "adverse, but less than significant" with mitigation. However, this analysis uses incorrect information in its argument that wildlife, and specifically bobcats, would not be adversely affected by this increase in Proposed Project activity. For example, the revised DEIR incorrectly states that bobcat use of the Colima Service Tunnel remained high after being opened to human use in 2002; based on a current Habitat Authority study in 2009-2010, bobcat activity at the Service Tunnel has decreased by approximately one-third since it was opened to public use in 2002[1]. This study also showed that bobcat activity in the area around the Tunnel, including portions of the Proposed Project Area within and near Arroyo Pescadero, has decreased substantially since the late 1990's, which was after oil activities had ceased in the area but before it was opened to recreational activity. The revised DEIR states that bobcats have only a "moderately negative response" to urbanization, and states that their response is similar to other wildlife species such as coyote, raccoon, and mule deer (p. 4.2-53). However, this is in direct conflict with the majority of scientific literature regarding bobcats[2,3,4,5], including the study cited in the revised DEIR on page 4.2-37 (Ordeñana, et. al. 2010) which shows that bobcats are one of only three species (with mountain lion and gray fox) that show a consistently negative response to urbanization while all other mammals in the study showed a positive response[6]. PHLNHPA-11

---

[1] Puente Hills Habitat Authority, 2010. Changes in Large and Medium-bodied Mammal Activity Following Eight Years of Recreation and Other Activities: The Colima Road Underpass and Vicinity. (Attached for your reference.)

[2] Riley, S.P.D. 2006. Spatial Ecology of Bobcats and Gray Foxes in Urban and Rural Zones of a National Park. *The Journal of Wildlife Management, 70*(5), 1425-1435.

[3] Riley, S.P.D., et. al. 2003. Effects of Urbanization and Habitat Fragmentation on Bobcats and Coyotes in Southern California. *Conservation Biology, 17*, 566-576.

[4] Crooks, K.R. 2002. Relative Sensitivities of Mammalian Carnivores to Habitat Fragmentation. *Conservation Biology, 16*(2), 488-502.

[5] Gehrt, S.D., et. al., ed. 2010. Urban Carnivores: Ecology, Conflict, and Conservation. Johns Hopkins University Press, Baltimore.

[6] Ordeñana, M. A., K. R. Crooks, E. E. Boydston, R. N. Fisher, L. M. Lyren, S. Siudyla, C. Haas, S. Harris, S. A. Hathaway, G. M. Turschak, A. K. Miles, and D. H. Van Vuren. 2010. The effects of urbanization on carnivore species distribution and richness. Journal of Mammalogy 91:1322-1331.

Incorrect Use of Baseline Biological Conditions

The revised DEIR states that prior oil drilling activities did not result in significant, long-term, adverse effects on the local wildlife populations, and therefore the currently Proposed Project will not result in those impacts as well. It is inappropriate to use previous oil drilling activities as a baseline for conducting current impact analysis; per CEQA Guidelines, the Proposed Project should be analyzed according to existing conditions for impact analysis[7]. Although the Proposed Project vicinity currently exhibits the highest bobcat activity in the entire Preserve, it does not mean that this was the case when previous oil drilling activities were occurring. The revised DEIR does not cite any data to confirm the assertion that previous oil activities didn't have an adverse effect on wildlife. It is unknown whether wildlife avoided the oil activity and instead persisted in other undeveloped habitats surrounding the oil drilling activities. During previous oil drilling activities, there was more undeveloped habitat available in the region. In the past 50 years alone, areas totaling the approximate size of the entire Puente Hills Preserve (nearly 4,000 acres) have been converted from natural habitat to developed areas (residential developments, golf courses, landfills, cemeteries) (Exhibit A), leaving what remains to be of vital importance to the persistence of native habitat and wildlife populations in the Puente Hills. In addition, during previous oil drilling activities there was less recreational activity in the Preserve than exists today, due to public access restrictions on lands that were previously privately owned (such as Rose Hills Cemetery property), meaning that there was less disturbance to wildlife on adjacent lands. PHLNHPA-12

Noise Impacts to Mammals Not Addressed

The revised DEIR did not include in its Core Habitat impact analysis any information about how noise from the Proposed Project could affect medium and large mammal species. Page 4.2-20 summarized noise issues related to wildlife, but focused only on birds and bats, and did not include evaluation of medium or large mammals. However, the revised DEIR did include a quote from a study stating that "the preponderance of evidence argues for immediate action to manage noise in protected natural areas" (p. 4.2-20). In addition, a study cited in the revised DEIR (Barber, et al., 2009) found that a one-decibel (dB) increase in existing sound level reduces the distance that an animal can detect something by 11 percent and reduces the area in which an animal can listen by 21 percent; increases of up to three dB can reduce the listening area for an animal by 50 percent[8]. This reduced area would impact an animal's ability to detect and avoid predators, and to detect and capture prey. Increased noise from the Proposed Project would compound existing noise levels present in the Preserve and impact wildlife, particularly during the Construction phase. PHLNHPA-13

Impacts to Native Wildlife Nursery Site Not Adequately Addressed

The revised DEIR also did not include in its Core Habitat impact analysis an

[7] CEQA guidelines, Section 15126.2.
[8] Barber, J.R., et. al. 2009b. The Costs of Chronic Noise Exposure for Terrestrial Organisms. *Trends in Ecology and Evolution, 25*(3), 180-189.

acknowledgement that female bobcats have been shown to be especially sensitive to human disturbance and developed areas, and spend most of their time in natural habitat (as opposed to developed or altered habitat, such as golf courses or landscaped areas)[9,10,11]. In one study, the edge of the average female bobcat home range was approximately one-half mile from developed areas, and female bobcats avoided paved roads that received regular vehicle use, even near or within a park; other studies were noted regarding bobcat avoidance of paved roads as well[12]. Given this sensitivity to development and the avoidance buffer zones around such development, the area of a habitat preserve that effectively supports bobcat reproduction could actually be smaller than its jurisdictional boundaries[13,14]. The higher sensitivity of adult female bobcats in particular is important for bobcat population viability because lands that are inhospitable to females cannot produce new animals[15]. Given that the Proposed Project vicinity exhibits the highest bobcat activity in the entire Preserve, and that female bobcats are especially sensitive to development, the Proposed Project could have a significant adverse effect on the value of the Core Habitat as a native wildlife nursery site for this species. Proposed Project activities and associated edge effects could cause the currently undisturbed habitat to be considered unsuitable by female bobcats, causing them to avoid the area or forcing them to be subjected to additional stress and possibly shrink and overlap their home ranges, causing additional competition for limited resources. PHLNHPA-14

These significant adverse impacts to native wildlife nursery sites likely extend beyond bobcats, applying to the numerous other wildlife species present on the Preserve that are considered to be sensitive to human activity, including spotted skunks, long-tailed weasels and badgers[16]. However, bobcats are useful as an indicator species for potential impacts on other species. Bobcats are an especially useful indicator species in southern California regarding habitat connectivity, as they are sensitive to fragmentation and human disturbances, including roads[17,18,19,20], spend the majority of their time in natural habitat[21,22,23], and provide a method for protecting

---

[9] Riley, S.P.D. 2006. *Ibid.*
[10] Lyren, L.M., et. al. 2008. GPS Telemetry, Camera Trap, and Mortality Surveys of Bobcats in the San Joaquin Hills, Orange County, California. Prepared for U.S. Fish and Wildlife Service and The Nature Conservancy. Administrative Report.
[11] Gehrt, et. al. 2010. *Ibid.*
[12] Riley, S.P.D. 2006. *Ibid.*
[13] *Ibid.*
[14] Hilty, J.A., et. al., 2006. Corridor Ecology: The Science and Practice of Linking Landscapes for Biodiversity Conservation. Island Press, Washington D.C.
[15] Riley, S.P.D., et. al. 2003. *Ibid.*
[16] Crooks, K. R. 2002. *Ibid.*
[17] *Ibid.*
[18] *Ibid.*
[19] Hunter, R., Fisher, R., and Crooks, K 2003. Landscape-level connectivity in coastal southern California, USA, as assessed through carnivore habitat suitability. *Natural Areas Journal, 23,* 302–314.
[20] Conservation Biology Institute. 2005. Maintaining Ecological Connectivity Across the "Missing Middle" of the Puente-Chino Hills Wildlife Corridor. July 2005.
[21] Riley, S.P.D. 2006. *Ibid.*
[22] Lyren, L.M., et. al. 2008. *Ibid.*

other species with less-demanding habitat needs[24]. Many wildlife species prefer to breed in areas that are buffered from perceived threats, such as development and human activity, to help insure the protection and survival of their young. The Core Habitat currently serves as the largest area of buffered habitat on the Preserve, and impacts to this area could significantly impact native wildlife nursery sites.

4b. Vibration Impacts

The revised DEIR does not adequately evaluate Proposed Project impacts resulting from increased vibration, as it does not describe in detail vibration in relation to Proposed Project activities, including re-drills and well workovers, and it does not evaluate how more sensitive species may react to vibration increases.

In the revised DEIR, it states that "the highest vibration levels experienced by wildlife would most likely occur during the initial portion of drilling a well, during approximately the first 100 feet of drilling, and this would last a matter of hours when they are drilling close to the surface" (p. 4.2-53). However, this level of information regarding the duration of vibration impacts is not discussed in the Project Description or Noise and Vibration sections of the revised DEIR. Please include in the Final EIR a detailed description of exactly when, how long, and at what distance different vibration levels occur during the initial drilling of a well, as well as during re-drills and well workovers, which would occur continuously throughout the lifetime of the Proposed Project. This analysis should also include other situations which could cause additional vibration beyond anticipated levels, such as differences in types of rock encountered while drilling, or different types of equipment. PHLNHPA-15

Page 4.2-53 states that bobcats would experience anxiety due to vibrations, and that data on wildlife response to vibration impacts are not well-documented. But it also notes that the "typical response observed by the EIR preparers for most wildlife to a short-term, infrequent event, is short-term avoidance, but if the abnormal condition (such as noise and vibration) ceases, wildlife species typically return to their normal behavior". Please include a summary of the EIR preparers' experience observing wildlife reactions to vibration impacts, including the species observed. This reasoning does not account for wildlife species that are known to be more sensitive to human activity, like bobcats, which may not react the same way as "most wildlife". Also, given the frequency of new well drilling (up to once per month for five years), as well as re-drills (three times per year) and well workovers (52 per year, each lasting one to seven days; therefore, workovers could be continuous) over the 25-to-30-year life of the Proposed Project (lease period), this would be more than a short-term impact.

4c. North Access Road Impacts

[23] Gehrt, et. al. 2010. *Ibid.*
[24] Lyren, L.M., et. al. 2008. *Ibid.*

The revised DEIR does not adequately evaluate Proposed Project impacts from the North Access Road as it does not acknowledge the substantial change in traffic, associated noise and vibration from this increase in traffic, changes in the topography and vegetation, and changes brought about by the addition of the hardscape road surface.

The revised DEIR states that "The North Access Road is located in the Core Habitat of the Preserve, which currently has minimal disturbances. This access road would increase pressure on an already-constricted wildlife movement corridor and therefore, the overall effect would be an increase in impacts to biological resources" (p. 4.2-54). It also states that "increased levels of drilling operations and human activities in the Core Habitat, which currently has minimal disturbances, would result in substantial impacts to wildlife movement. The impacts would be most severe in those areas farthest away from existing human pressures". The North Access Road would traverse through the entire Core Habitat, including the portions that are the farthest away and most insulated from existing human pressures. The Proposed Project would substantially increase traffic (and associated noise, vibration and human presence impacts) on this road from approximately one vehicle per day or less under current conditions to 24 truck trips during the Operational Phase and 316 truck trips during the Construction Phase (Tables 4.7-14 and 4.7-15). PHLNHPA-16

Appendix A, Northerly Access Road Study Sheets 2 of 3 and 3 of 3 show that more than 1,160 feet of retaining walls from two to 10 feet in height will be constructed on the upslope side of the North Access Road, and show that K-rails will be installed along the downslope side of the Road. However, the revised DEIR does not analyze this aspect of the Project, and does not evaluate the impacts to wildlife of creating a concrete canyon that they may not be able to easily escape. In addition, the height and length of some retaining walls is not shown, and the total length of installed K-rails is not included. Delaying exposure of these details masks their environmental significance. Please include this information in the Final EIR. PHLNHPA-17

Additionally, there is no analysis in the revised DEIR regarding how this substantial increase in traffic would increase associated noise and vibration levels along the North Access Road which traverses through the entire Core Habitat. The Noise and Vibration section does state on page 4.5-22 that noise levels from trucks could range up to 62 dBA, which is a large increase from the existing baseline noise levels of 47.7 dBA measured at the Deer Loop trail (and is most likely even quieter in the middle of the Core Habitat). Vehicle noise may be further amplified by increased noise levels due to the steep slope of the road and the speed limit, which could cause trucks to use loud "J-brakes" coming down the slope or to increase engine noise due to laboring up the slope; therefore, we strongly recommend prohibiting the use of such "J-brakes". As noted on Page 4.5-27 of the DEIR, "trucks laboring uphill produce more noise than trucks on a level surface". This section also states on page 4.5-13 that large trucks produce detectable levels of vibration at 50 to 100 feet from Colima Road, but does not indicate what vibration levels are anticipated along the North Access Road, which could introduce a completely new impact to the Core Habitat, which currently PHLNHPA-18

does not support any large truck activity with the potential to cause vibration impacts. Please include an analysis of noise and vibration impacts along the North Access Road in the Biological Resources section, and include additional mitigation measures for significant impacts.

Mitigation measure BIO-4c states that all hauling activities shall be restricted to daylight hours. However, mitigation measure N-4, item 8, notes that traffic on the North Access Road would be limited to 7 a.m. and 7 p.m. Specifying operational hours will not ensure hauling activities would be restricted to daylight hours, as for many weeks of the year it is just becoming light at 7 a.m. and it is dark at 5:30 p.m. Also, this measure should be revised to state that all traffic on the North Access Road, not just hauling, should be restricted to daylight hours only, and should also avoid the periods within one hour after sunrise and one hour before sunset to avoid impacting species that are primarily crepuscular (those with most activity at sunrise and sunset). PHLNHPA-19

4d. Wildlife Travel Corridor Impacts

The revised DEIR does not adequately evaluate impacts to wildlife movement from the Proposed Project as it does not acknowledge how impacts to areas surrounding the Project Site could cause animals to avoid the area and alter their movement patterns.

<u>Impacts to Area Between Proposed Project and Colima Tunnel</u>
The revised DEIR includes mitigation measure BIO-4n, closing the Colima Service Tunnel, thereby closing recreational access to the Arroyo San Miguel trail during drilling and construction activities. If drilling and construction activities could adversely affect wildlife movement at the Colima Service Tunnel, which is approximately 2,000 feet east of the Proposed Project, then it is logical that drilling and construction activities would also adversely affect all areas within 2,000 feet of the Proposed Project, including most of the Arroyo Pescadero area and public trails. For species that are sensitive to the Proposed Project activities and associated edge effects, there is the potential that they would avoid this area and may choose to head north, away from such disturbances. This may be especially true for species that are also sensitive to recreational activities, such as bobcats[25,26,27], given the current level of hiking and dog-walking on the adjacent Arroyo Pescadero Loop Trail and Deer Loop Trail. Unfortunately, this would direct them away from using the least-constrained path at the Service Tunnel, which allows for safe movement under Colima Road, and may direct them to cross Colima Road further north, where there is no such safe passage (as documented by the numerous large mammal roadkill at this location). Discussion of the wildlife travel corridor impacts on page 4.2-55 implies PHLNHPA-20

[25] George, S. L , and Crooks, K. R. 2006. Recreation and large mammal activity in an urban nature reserve. *Biological Conservation, 133,*107-177.
[26] Reed, S.E., and Merenlender, A.M. 2008. Quiet, nonconsumptive recreation reduces protected area effectiveness. *Conservation Letters, 1:* 146-154.
[27] Reed, S.E., and Merenlender, A.M. 2011. Effects of management of domestic dogs and recreation on carnivores in protected areas in Northern California. *Conservation Biology, 25,* 3: 504-513.

that animals "choosing to avoid the proposed drilling site by moving through the hills to the north" simply need to take one of two alternative roads that would bring them back south to the Service Tunnel, and therefore animals could easily avoid crossing Colima Road. This scenario is speculative. Animals diverted to the north by activity in the Core Habitat will most logically try to cross Colima Road to the north. This could lead to a significant impact to wildlife movement through the corridor, either by causing more roadkill and reducing wildlife populations, or by causing wildlife to avoid crossing Colima Road completely. Both of these situations could threaten the viability of the corridor, which, as noted in the DEIR, is necessary to (1) maintain genetic variability in populations needed for adaptation to environmental changes, (2) facilitate dispersal of juveniles, and (3) provide movement routes in response to emergency situations such as wildfires.

Colima Tunnel Closure Mitigation Measure

Mitigation measure BIO-4n states that "To continue providing access to the Arroyo San Miguel Trails, the Applicant shall develop additional recreation access, in coordination with the Habitat Authority, to the Arroyo San Miguel Trail by any of the following or equivalent: (1) enhancing the parking area on the east side of Colima Road; (2) developing the parking area along La Flore Drive, approximately one mile east of Colima Road, or; (3) developing pedestrian access along Colima Road from the Preserve parking area (on the west side of Colima Road) utilizing the new signalized intersection" (p. 4.2-60). The Habitat Authority does not believe that any additional recreational access is needed as a result of closing the Colima Service Tunnel, as access is already allowed at the eastern end of the Arroyo San Miguel Trail (near La Flore Drive). In addition, the Habitat Authority believes that the recreational use of the Preserve is most likely already at maximum capacity, and is concerned that providing additional access points may encourage more recreational use, degrading the habitat quality, particularly for species that are sensitive to human and recreational activity. We do not support the two access alternatives along Colima Road, as recreational users crossing Colima Road via the new signalized intersection or users parking in the lot on the east side of Colima would both follow a small feeder trail east to link up to the Arroyo San Miguel Trail. This would put them directly at the southern opening of the Tunnel, thereby negating the purpose of closing the Tunnel to recreational use. PHLNHPA-21

Significant Impacts

The revised DEIR includes mitigation measures (BIO-4a through 4n) to minimize impacts to wildlife movement such as reducing the speed limit from 15 mph to 10 mph, limiting nighttime use, and shielding lighting; however, they are not adequate to reduce impacts to less than significant. In addition, as acknowledged in the Land Use and Policy Consistency Analysis (Section 4.11), "although the Proposed Project could impact the existing natural habitat, the mitigation measures identified in Section 4.2, Biological Resources, would minimize these impacts; however, potential impacts to wildlife corridors would remain significant" (p. 4.11-37). Therefore, the Habitat Authority has recommended additional mitigation measures, including a wildlife

overpass and additional recreation restrictions, that would further reduce impacts to wildlife movement (see 4e below).

4e. Suggested Mitigation Measures

In an effort to further avoid and minimize potential Proposed Project impacts to wildlife movement and native wildlife nursery sites (as described above in sections 4a through 4d), in combination with other cumulative threats to the Preserve and Corridor, the Habitat Authority requests that the following suggested additional mitigation measures be considered for implementation.

A. **Wildlife Movement Monitoring Study**. A long-term scientific study is needed to determine the movement, core areas, population size, mortality causes, and reproductive success of key indicator wildlife species (such as bobcats) through the Proposed Project site and entire Preserve, and to monitor such movement at least several months before Phase I begins and during the Proposed Project. This study should be a long-term, multi-year study involving telemetry (GPS collars), motion-sensor cameras, and/or scent stations conducted by experienced wildlife research biologists. Bobcats are ideal as indicator species, given their sensitivity to human development and their large-scale habitat needs[28, 29, 30]. Such a study will not only help to establish the efficacy of other mitigation measures to maintain wildlife movement, but may also help to identify key areas where further habitat enhancement is needed, where a new and/or expanded Core Habitat(s) should be created (either on or adjacent to the Preserve), and to help establish restrictions on recreational activities in the Arroyo Pescadero area. This study would also add to the scientific literature regarding wildlife reactions to construction and drilling activities to help evaluate impacts in other future EIRs. PHLNHPA-22

This study would also help the Proposed Project to be more consistent with the City's General Plan Environmental Resource Management Element Policy 1.3, with which the Proposed Project has been found to be potentially inconsistent (p. 4.11-32). This Policy is to "Preserve adequate open space areas for major habitat types, so as to maintain ecosystems in a natural balance for recreation, scientific, economic, educational, and scenic purposes." The results of this study would help to guide management of the preserved open space to insure that there is a balance between these multiple uses while maintaining viable habitat for wildlife populations.

B. **Construct a wildlife overpass or underpass at the north end of Colima Road.** This would provide for a second safe route for wildlife to move east and west through the corridor across Colima Road at a point where substantial

[28] Crooks, K.R. 2002. *Ibid.*
[29] Conservation Biology Institute. 2005. *Ibid.*
[30] Lyren, L., et. al. 2008. *Ibid.*

numbers of large mammal roadkill have been identified. This route may be used more frequently as a result of the Proposed Project, which could cause wildlife to avoid the area in and around the Proposed Project. The revised DEIR noted on page 4.2-27 that the RMP recommended the construction of a wildlife overpass over Colima Road for wildlife corridor maintenance and improving wildlife movement opportunities across Colima Road in the Proposed Project vicinity.

The revised DEIR noted that drilling and construction activities could adversely affect wildlife movement at the Colima Service Tunnel, which is approximately 2,000 feet east of the Proposed Project; therefore, it is logical that drilling and construction activities would also adversely affect all areas within 2,000 feet of the Proposed Project, including most of the Arroyo Pescadero area and public trails. For some species, especially those that are more sensitive to human activities such as bobcats, this could cause them to shift their movement further north and away from preferred routes leading to the Colima Service Tunnel, and to cross Colima Road at the roadkill "hot spot". This overpass or underpass should be constructed and operational prior to the construction and operations phase of the Proposed Project to avoid cumulative adverse impacts to wildlife in the area. The initial findings of a Wildlife Movement Monitoring Study (as recommended above) could help to determine the best location and/or type of crossing structure (overpass or underpass). In fact, the Study may suggest multiple structures to enhance the Corridor in this area.

PHLNHPA-23

Constructing an overpass, as opposed to an underpass, would also be beneficial to the coastal California gnatcatcher, as it could not only create new habitat on new land (as opposed to restoring existing degraded habitat), but would also help to facilitate movement of gnatcatchers from the largest population on the Preserve (located on the east side of Colima Road) to habitats further west of Colima Road (including to one of the largest and most contiguous patches of habitat just west of Colima Road) by increasing habitat connectivity (see Exhibit B). The U.S. Fish and Wildlife Service noted in their Final Rule for the gnatcatcher critical habitat designation[31] that, "For relatively sedentary bird species such as the coastal California gnatcatcher, connectivity of habitat patches is probably the most important landscape feature for maintaining species diversity of native biota. Corridors counteract the effects of fragmentation, and should eliminate or minimize the attrition of species over time by facilitating dispersal and recolonization". It also noted that generally the species disperses short distances through contiguous undisturbed habitat, and that habitat restoration to facilitate movement between populations is one example of an action that may be necessary to

[31] Federal Register. 2007. Final Rule: Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (*Polioptila californica californica*). Vol. 72, No. 243. Wednesday, December 19, 2007.

prevent further decline and loss of the species. During their identification of critical habitat areas, they included "satellite" patches of suitable habitat that were within 1,600 feet of larger core habitat areas as important for connectivity, as it is the distance a bird would have to travel across the landscape to reach a core area while avoiding developed areas. Consequently, the approximate location of a wildlife overpass over Colima Road would be approximately 1,600 feet from the largest patches of most suitable habitat on the east and west sides of Colima Road, and could serve as a "satellite" patch of connecting habitat.

C. **Establish New and/or Expanded Core Habitat.** As previously mentioned, the Proposed Project would shrink, degrade, and fragment the existing Core Habitat, compromising its purpose and function and significantly impacting native wildlife nursery sites and wildlife movement. Therefore, a new and/or expanded Core Habitat designation within or outside the current Preserve boundaries is needed to mitigate for these impacts.

Core Habitat areas are critical to maintaining wildlife populations in fragmented habitat corridors. Habitat connections or movement corridors connecting reserves or larger "core areas" of habitat are thought to counter many adverse effects of isolation by fragmentation on species and ecological processes[32]. Large areas are more defensible and will contain larger populations that will be less vulnerable to extinction compared to smaller, fragmented habitats that experience effects from adjacent developed land[33]. In the absence of large Core Habitat areas, a corridor may merely serve as a "population sink" where animals enter the corridor from larger or higher-quality habitats, only to perish and not contribute to population regeneration[34,35].

A Los Angeles County report regarding an update to the SEAs noted that Core Habitats are defined as "large blocks of habitat conforming to a significant topographical feature such as a watershed, major river, butte, etc." and are "more likely to encompass diverse habitat types and are more easily buffered from potential impacts from surrounding developed lands"[36]. This report goes on to state that protecting natural open space within and adjacent to Core Habitats will protect larger wildlife populations and potentially generate a greater diversity of species and communities.

---

[32] Conservation Biology Institute. 2005. *Ibid.*

[33] Noss, R.F. 1987. Protecting Natural Areas in Fragmented Landscapes. *Natural Areas Journal, 7*(1), 2-13.
[34] Hilty, J.A., et. al., 2006. *Ibid.*
[35] Conservation Biology Institute. *Ibid.*
[36] PCR. 2000a. Los Angeles County Significant Ecological Area Update Study 2000: Background Report. Los Angeles County, California. November 2000.

Consistent with that recommendation, the Habitat Authority, along with a panel of regional scientists and natural resource regulators, included a Core Habitat management zone in the Resource Management Plan[37]. The Core Habitat is the largest area of habitat within the Preserve that is undisturbed from human activity and is the most buffered from edge effects due to adjacent development (Exhibit C). There is no other comparably-sized area of habitat with the Preserve that is similarly undisturbed by human activity or edge effects. It also supports a diversity of habitat types, both native and non-native, similar to other areas of the Preserve. The Proposed Project facilities and roads would introduce new human disturbance and related edge effects into this currently-buffered habitat, and would force such buffers further inward, resulting in a smaller area of undisturbed habitat than presently exists (Exhibit D). This would effectively shrink, degrade, and fragment the existing Core Habitat, compromising its purpose and function. This would necessitate the creation of a new and/or expanded Core Habitat to serve as a large area (or several areas) that are closed to public access and regular human disturbance activities. This Core Habitat could either be in an existing portion of the Preserve, or on a newly-acquired parcel adjacent to the Preserve. The location of the new and/or expanded Core Habitat should be guided, in part, by scientific research resulting from the above-recommended Wildlife Movement Monitoring Study involving bobcats, as well as other factors noted above as being important to Core Habitat areas (large size, buffered from edge effects, habitat diversity, ease of prohibiting public access, etc.). In addition, a mitigation measure for a new and/or expanded Core Habitat should include funding to prepare an amended Habitat Authority Resource Management Plan which would not only include the new and/or expanded Core Habitat but would also address oil drilling activities within the Preserve. PHLNHPA-24

A report prepared by the Conservation Biology Institute called Maintaining Ecological Connectivity Across the "Missing Middle" of the Puente-Chino Hills Wildlife Corridor[38] critically and thoroughly examines the viability of the entire corridor from the Chino Hills in the east to Sycamore Canyon in the west. This report emphasizes not only the importance of the Corridor in providing movement and dispersal opportunities for a range of wildlife species, but also providing core areas of larger habitat patches needed to provide sources for wildlife populations in the corridor. This report noted that the ability of western portions of the Corridor to support species depends on having sufficient "live-in" habitat along the way to support populations that contribute dispersing individuals.

Without large blocks of live-in habitat, the continued functionality of the Corridor cannot be ensured by merely a long, narrow gauntlet of "move-

[37] LSA and Puente Hills Habitat Authority. 2007. Resource Management Plan. Adopted July 26, 2007.
[38] Conservation Biology Institute. 2005. *Ibid.*

through" habitat[39]. These live-in blocks of larger habitat patches are key to maintaining wildlife movement through a corridor, because movement not only refers to one-time or daily movement patterns, but generational or long-term movements in order to maintain the genetic integrity and diversity of a population, with some individuals residing and reproducing in live-in blocks for longer periods[40].

D. **Study the necessity of closing or limiting public access to the Arroyo Pescadero and Arroyo San Miguel areas, including the Colima Service Tunnel, to recreation during test drilling and construction, as well as during any periods of drilling and re-drilling during the operations phase.** As stated previously, bobcats are more sensitive to urbanization and human activity than most other common medium and large mammals. In addition, the Arroyo Pescadero vicinity has been shown to have the highest bobcat activity of the entire Preserve. Restricting human activity in this area has already been recommended in other studies[41,42], and current data indicates a possible decline in wildlife usage due to increased human activity in the area[43]. In addition, several scientific studies have shown that bobcats are sensitive to recreational activities and are substantially more abundant in areas that are closed to recreation[44,45,46]. The revised DEIR has also determined that drilling and construction activities could adversely affect wildlife movement through the Colima Service Tunnel (and by extension, logically also affecting all areas in-between, which includes Arroyo Pescadero). Since the Proposed Project would cumulatively add to human disturbance in the area, a reduction of recreational activity during the most active periods of the Proposed Project (construction and drilling) may help to reduce adverse effects to wildlife in the area, particularly bobcats. This could also allow wildlife to have an area less impacted by human disturbance for movement through the area and help to maintain a safe approach to the Colima Service Tunnel for wildlife to move east and west through the corridor under Colima Road. PHLNHPA-25

The Habitat Authority currently manages the Preserve in accordance with the RMP, which includes management tools to balance recreation with protection of sensitive habitat areas and/or species. As such, this area will continue to be studied and monitored to possibly prohibit dogs from the Arroyo Pescadero area in response to the Proposed Project, if not required as mitigation. Also, the area will be monitored to possibly close the Arroyo Pescadero and/or Deer Loop Trails to recreational use during this same period if indications are that

[39] Conservation Biology Institute. 2005. *Ibid.*
[40] Hilty, J.A., et. al., 2006. *Ibid.*
[41] Haas, C., and Crooks, K. 1999. *Ibid.*
[42] Conservation Biology Institute. 2005. *Ibid.*
[43] Puente Hills Habitat Authority, 2010. *Ibid.*
[44] George, S. L , and Crooks, K. R. 2006. *Ibid.*
[45] Reed, S.E., and Merenlender, A.M. 2008. *Ibid.*
[46] Reed, S.E., and Merenlender, A.M. 2011. *Ibid.*

bobcats are adversely affected (such as by evaluating changes to territories, reproduction and/or movement), if not required as mitigation from this Proposed Project. Several scientific studies have suggested that the presence of domestic dogs on trails may have an adverse effect on wildlife, including bobcats[47,48]; prohibiting dogs should also help restrict the overall recreational use.

E. **Implement a 2:1 mitigation ratio for temporarily-disturbed habitat.** Mitigation Measure BIO-1b in the revised DEIR states that all graded slopes outside of permanent impact areas shall be revegetated. However, due to the time lapse between habitat removal in this area and the maturation of the revegetated habitat, there will be a temporal loss of habitat during this time. In order to begin to compensate for this temporal loss of habitat as soon as possible, habitat of the same acreage should be restored elsewhere in the Core Habitat at the time test wells are drilled in addition to restoration of the temporarily-disturbed area, resulting in a total mitigation ratio of 2:1 for temporarily-disturbed habitat. PHLNHPA-26

F. **Additional habitat mitigation to improve habitat quality in the vicinity of the North Access Road.** Mitigation Measure BIO-1a states that habitat will be restored at a 1:1 ratio for noise impacts to coastal sage scrub surrounding the Proposed oil facility. However, additional noise and associated edge effects will impact habitat surrounding the North Access Road. Improvement of the habitat quality in the vicinity of this road through habitat restoration may mitigate for the adverse effects to some species, such as avoidance of the area surrounding the North Access Road, and resulting impacts to wildlife movement and/or native wildlife nursery sites. Restoration could improve habitat complexity, resulting in increased areas for refuge and protection, and increased prey base. PHLNHPA-27

4f. Residual Impacts

The revised DEIR does not adequately address residual impacts from the Proposed Project following implementation of mitigation measures presented in the revised DEIR, as it uses inappropriate thresholds of significance and inappropriate information for baseline conditions.

On page 4.2-60, following the impact analysis and mitigation measures for wildlife movement and native wildlife nursery sites, it states that "impacts are not expected to be catastrophic, or lead to the loss of an entire species from the area". However, that is not the significance threshold stated in the revised DEIR. The significance threshold asks whether the Proposed Project would result in "substantial interference with the movement of any native resident or migratory fish or wildlife species…or PHLNHPA-28

[47] Lenth, B.E., and Knight, R.L. 2008. The effects of dogs on wildlife communities. *Natural Areas Journal, 28*(3), 218-227.
[48] George, S.L., and Crooks, K.R. 2006. *Ibid.*

interference with the use of native wildlife nursery sites." The revised DEIR also acknowledges in the Land Use and Policy Consistency Analysis (Section 4.11) that "although the Proposed Project could impact the existing natural habitat, the mitigation measures identified in Section 4.2, Biological Resources, would minimize these impacts; however, potential impacts to wildlife corridors would remain significant" (p. 4.11-37). Without implementation of the above-recommended additional mitigation measures, and based on the above information, the Proposed Project could result in substantial interference with the movement of a native resident wildlife species or interference with the use of a native wildlife nursery site.

In addition, this section states that the Preserve has experienced years of previous oil development and is surrounded by populated residential area, but that wildlife still persist. While that may be true, as stated previously the DEIR did not provide evidence or data showing how wildlife reacted to previous oil activities. The Preserve has been recovering habitat for anywhere from 17 to 22 years (the DEIR states various years for when oil production ceased), during which time it would be expected that some habitat would recover and some animals return, and in addition the Habitat Authority has for a decade and a half been restoring habitat and implementing other measures to facilitate the return of wildlife. A residential development is not equivalent to an operating oil field or to the development of such an industrial use. In addition, the residential area does not operate within the Preserve; the oil field will take its impacts to the heart of the Core Habitat. And while wildlife do still persist on the Preserve, the mission of the Habitat Authority is to preserve land in perpetuity and protect biodiversity, which includes allowing wildlife to persist, but also allow it to thrive, reproduce, and move freely in order to help combat all of the many stressors resulting from the surrounding urban development, habitat loss, and climate change. The revised DEIR acknowledges that "ecological systems that are already under stress from surrounding intensive development exhibit a compromised capacity to rebound from disruptive processes, such as a fire and human intrusion" (p. 4.2-48). Implementation of the above-recommended additional mitigation measures may help mitigate for the Proposed Project's contribution to the overall degradation of the Preserve and its essential functions. PHLNHPA-29

5. **The revised DEIR did not adequately mitigate for the Proposed Project conflict with a local policy regarding protection of biological resources.**

The revised DEIR evaluated whether the Proposed Project would "conflict with local policies and ordinances protecting biological resources, such as a tree preservation policy or ordinance" (p. 4.2-61). This analysis states that Proposed Project implementation would conflict with various goals and objectives of the Habitat Authority's Resource Management Plan (RMP), especially concerning activities identified as permissible within the Core Habitat zone of the Preserve. As acknowledged in the revised DEIR on page 4.2-35, the sole purpose of the Core Habitat zone is to provide undisturbed habitat for wildlife to contribute to sustaining the overall ecological health of the Habitat Authority's jurisdiction. Permissible activities in the Core Habitat zone include authorized biological survey and some

restoration and/or invasive species removal, but no unsupervised public access. It notes that the RMP is not consistent with the City of Whittier General Plan because the General Plan allows for oil and gas production on lands zoned as Open Space, if such production can be shown to be compatible with surrounding permitted uses (i.e., the Preserve). Regardless, the Proposed Project would conflict with the RMP, which serves as an approved, local policy document (adopted by the Habitat Authority Board of Directors on July 26, 2007), which would be a significant impact per the significance threshold. Although the City of Whittier did not adopt the RMP, the Habitat Authority manages the Preserve according to the policies contained in the RMP. PHLNHPA-30

Suggested mitigation for this conflict would be to designate a new and/or expanded Core Habitat zone and to prepare a revised RMP addressing the new and/or expanded Core Habitat as well as oil drilling activities (see 4eC above).

6. **Mitigation for impacts to nesting birds should be included such that well re-drills occur outside of the nesting season, or if not, that nest surveys be conducted and nest avoidance buffers be established.**

Mitigation Measures BIO-4e and BIO-4f state that surveys will be conducted for nesting birds prior to initial construction, drilling, and fuel modification activities. However, these measures do not account for subsequent drilling activities, such as well re-drills which will be similar to initial drilling and will occur at approximately three wells per year. Please define and/or specify "drills" and "re-drills" in this mitigation measure so that monitoring requirements during these activities are clear. These mitigation measures should include avoidance of the nesting season during well re-drills, which would mean that September through the end of November would be the best times for re-drills. If that is not feasible, then nest surveys and avoidance similar to that required in measures BIO-4e and BIO-4f should be implemented. Also, please clarify in these measures that orange construction fencing and signage will remain in place around nests until the nest is "naturally" abandoned, and not abandoned due to disturbance from Proposed Project activities, or the fencing and signage removed because a date on the calendar has passed. PHLNHPA-31

Also, Mitigation Measure BIO-4e recommends conducting initial pad construction and annual fuel modification activity outside the breeding season of nesting songbirds, but such activity is not prohibited. This Mitigation Measure does require that surveys for nesting birds be conducted prior to any construction activity that would take place during breeding season, and if nesting birds are observed then a buffer would be established a minimum of100 feet from the nest. The Project proponent is given the option to retain a biologist to monitor the nest and ensure that Project activities are conducted in accordance with State and federal law. The biologist monitor should be required in addition to establishment of the buffer area, and should be present during construction, drilling, re-drilling, road maintenance, or any other activity that has the potential to disturb nesting songbirds, bats or raptors. PHLNHPA-32

The biologist should also have the authority to stop Project-related activity if it is disturbing wildlife. PHLNHPA-33

7. **The mitigation for impacts to special-status bats is not adequate and should consider accounting for the loss and degradation of habitat and should mitigate for impacts during drilling (BIO-4g; pg. 4.2-58 to 4.2-59).**

Mitigation Measure BIO-4g in the DEIR for special-status bats focuses only on direct impacts due to the removal of roosting trees. However, adverse noise and vibration impacts could occur during test drilling before construction, during initial drilling of up to the remaining 57 wells, and during re-drilling of these wells (three each year) over the life of the Proposed Project. Noise and vibration levels could cause bats to abandon maternity roosts, causing mortality of young and resulting in a significant impact to special-status bats. The feasibility of restricting re-drilling activities to the non-breeding season should be explored as additional mitigation, and please define and/or specify "drills" and "re-drills" in this mitigation measure so that any monitoring requirements during these activities are clear. In addition, the Mitigation Measure does not account for general loss or degradation of habitat due to the increase in human activity and ambient lighting in the Proposed Project vicinity, which would occur on a 24-hour basis during drilling operations, could alter the bat community structure[49], could cause bats to avoid noisy areas when foraging, and may result in habitat fragmentation[50], resulting in possible impacts to the special status bat species documented in the Proposed Project vicinity (western mastiff bat, *Eumops perotis californicus;* hoary bat, *Lasiurus cinereus*; western red bat, *Lasiurus blossevillii*; and western yellow bat, *Lasiurus xanthinus*)[51]. PHLNHPA-34

In addition, although Mitigation Measures BIO-1a and BIO-1b (pages 4.2-45 and 4.2-46) state that they would offset impacts to sensitive species, including bats, by requiring restoration of coastal sage scrub and revegetating graded slopes, this measure will not replace possible tree roosting habitat for sensitive bat species. Additional mitigation should include placing bat boxes in the Core Habitat, in areas located away from the proposed oil facilities and roads (and adjacent areas affected by edge effects), which could increase local bat populations[52]. The reference to "tract map area" at the end of the measure should also be deleted as it is not pertinent to this Proposed Project. PHLNHPA-35

8. **The analysis of cumulative impacts is not adequate, and it is suggested that the final EIR consider more appropriate and relevant mitigation (Section 4.2.6; pg. 4.2-63).**

---

[49] Longcore, T., and Rich, C. 2004. Ecological light pollution. *Frontiers in Ecology and Environment, 2*(4), 191–198.
[50] Barber, J.R., et. al. 2009b. *Ibid.*
[51] Remington, S. 2006. Bat Surveys of the Puente Hills. Conducted for the Puente Hills Landfill Native Habitat Preservation Authority. Final Report: July 14, 2006.
[52] *Ibid.*

The revised DEIR notes that the Proposed Project, in combination with noise from existing land uses, would result in a cumulatively considerable increase in the level of noise in the Preserve. However, the mitigation measure (CUMULATIVE BIO-1, page. 4.2-65) prescribed to minimize this impact requires that existing Matrix Oil activities in Sycamore Canyon be demonstrated as complying with Los Angeles County exterior noise standards. However, there is no baseline noise information to determine whether the current Matrix Oil activities at Sycamore Canyon are in violation of these standards; if they are not, then this Mitigation Measure would not prove effective in reducing any noise and, therefore, would not minimize the cumulative impact to noise on the Preserve. Second, the Mitigation Measure only requires that the existing oil drilling activity achieve an exterior noise standard of 45 dBA at the Preserve's property boundary where it abuts "noise-sensitive areas and residential areas". ("Noise-sensitive areas" are not defined.) However, it is unclear what level of noise would result within the Preserve's boundary. The Habitat Authority suggests that a more appropriate and relevant mitigation measure to reduce cumulative impacts to noise within the Preserve would be to designate a new and/or expanded Core Habitat (see 4e above), which as noted in the RMP would have the sole purpose of providing undisturbed habitat for wildlife. This would provide a quiet refuge for wildlife species, especially those that are more sensitive to human activities that would help to mitigate for noise impacts from existing land uses as well as noise from the Proposed Project, which would degrade the current Core Habitat. Another relevant mitigation measure would be to limit recreational activity in the immediate vicinity of the Proposed Project, which would reduce overall disturbance especially during peak noise levels associated with drilling and construction activities (see 4e above). PHLNHPA-36

The revised DEIR also notes that there would be a cumulatively significant impact to wildlife movement in the general area due to "increased infill of open areas, increased human presence, and temporary and permanent loss of habitat in the general area that is already under extreme pressure from surrounding residential and urban areas" (p. 4.2-65). However, the only mitigation measure prescribed for this impact is CUMULATIVE BIO-2, which states that drilling or construction associated with the Proposed Project would not occur at the same time as, or in the same watershed as, construction work on Southern California Edison's Tehachapi Renewable Transmission Project. However, this Mitigation Measure would only address temporary impacts due to construction activities, and would not address the "increased infill of open areas", "increased human presence", and "permanent habitat loss" in an area under extreme pressure cited in the revised DEIR as reasons for the cumulatively significant impact to wildlife movement. The Habitat Authority suggests that additional mitigation, in the form of a wildlife overpass at upper Colima Road (see 4e above), be implemented to adequately mitigate for these cumulative impacts wildlife movement, as it would directly facilitate wildlife movement within the Preserve and Wildlife Corridor. PHLNHPA-37

The long-term viability of the Puente-Chino Hills Wildlife Corridor is already threatened every day by edge effects from surrounding current and ongoing urban

development, as well as the additional associated threats that come with such development, including increased wildfire danger, increased roadkill mortality, increased harm and mortality from pesticides (and especially rodenticides, which have been shown to harm bobcats and coyotes[53]), and increased mortality or displacement from "nuisance" wildlife trapping efforts. In addition, the already-narrow width of the Corridor remains threatened by the ever-present potential for further development of adjacent, non-preserved parcels supporting natural habitat. It is for these reasons that the Habitat Authority has continuously challenged other development Projects within and adjacent to the Preserve, including recent Projects such as the Pacific Heights Project in Rowland Heights (adjacent to Powder Canyon) and the Southern California Edison Tehachapi Renewable Transmission Project (running through the majority of the Preserve), both of which have been approved. The increased stress that the Proposed Project may cause to wildlife movement and population viability has the potential to adversely affect the long-term viability of the Corridor. The two best ways to combat these cumulative effects to the health of the Preserve are to improve movement opportunities (wildlife overpass) and provide areas which are protected from human disturbances (limit recreation, new and/or expanded Core Habitat). PHLNHPA-38

9. **Impacts in the Aesthetics and Visual Resources section (Section 4.6) regarding additional lighting on top of the drill rig, as well as increased ambient lighting, should be addressed in Biological Resources section.**

The Puente Hills are one of the few remaining open space areas in the region, and as part of the Pacific Flyover, likely serves as an important migratory stopover point for birds migrating through southern California twice a year. Most passerine birds migrate at night and have been found to be highly susceptible to lights placed on tall towers, particularly steady-burning and red lights[54,55,56]. The birds are attracted to these lights, especially in poor visibility conditions, and become disoriented, causing them to collide with the towers, wires, or other birds. The DEIR notes that only structures taller than 200 feet are required to comply with Federal Aviation Administration (FAA) lighting requirements (page 4.6-25); since the 125-foot drill rig is projected to be well below that height, and since such lighting could result in adverse impacts to migrating birds, lighting should not be used on the drill rig. This potential impact must be addressed in the Biological Resources section of the DEIR. PHLNHPA-39

Section 4.5 Noise and Vibration

[53] Riley, S.P.D. et. al. 2007. Anticoagulant Exposure and Notoedric Mange in Bobcats and Mountain Lions in Urban Southern California. *Journal of Wildlife Management, 71,* 1874-1884.
[54] Rich, C., and Longcore, T., eds. 2006. Ecological Consequences of Artificial Night Lighting. Island Press, Washington D.C.
[55] Longcore, T., C. Rich, and S.A. Gauthreaux. 2008. Height, guy wires, and stead-burning lights increase hazard of communication towers to nocturnal migrants: a review and meta-analysis. *The Auk, 125*(2):483-492.
[56] Gehring, J., P. Kerlinger, and A.M. Manville. 2009. Communication towers, lights, and birds: successful methods of reducing the frequency of avian collisions. *Ecological Applications, 19*(2), pp. 505-514.

1. **Mitigation Measures N-1c and N-4 require additional analysis and/or clarification.**

Mitigation Measure N-1c –states that construction parking and staging will be relocated north of the Ranger residence or to an equivalent area further from the school and residences on Catalina Avenue (p. 4.5-23). Any impacts associated with this relocation, including impacts to habitat and the Ranger residence, must be evaluated in the Final EIR to insure they do not create additional significant impacts; this means that the new site must be identified in the Final EIR. Mitigation Measure N-4, item 6, states that a secondary 16-foot-tall sound wall will be installed on the south, west and north sides of the gas plant. Please explain why a wall would not also be installed along the east side of the gas plant to minimize noise impacts to the adjacent habitat and recreational trail. PHLNHPA-40

2. **The Ranger residence should be considered for relocation.**

The residence is owned by the Mountains Recreation and Conservation Authority, a government park agency that the Habitat Authority contracts with for ranger services, and is occupied by two California Peace Officers. We understand that there will be noise-proofing of the Proposed Project, however the current location of the residence will be next to drilling, construction and operational activities of the Proposed Project. The revised DEIR does not include in the Noise and Vibration section a mitigation measure that would relocate the Ranger residence due to impacts from increased noise and vibration. However, page 4.11-20 of the Land Use and Policy Consistence Analysis section states that there is such a mitigation measure in the Noise and Vibration section and that it would reduce Land Use Impact LU.1 to less than significant. The revised DEIR states regarding noise increases that "although these noise levels would be within the General Plan limits, they would exceed the current baseline daytime levels by up to 18 dbA and would be clearly noticeable" (p. 4.5-22) and that although the Ranger residence is 1,000 feet from drilling, vibration levels would still likely be distinctly perceptible causing residential annoyance (Tables 4.5-4 and 4.5-3). Furthermore, the revised DEIR did not analyze impacts as a result of constant new activity, staging, parking and vehicle disturbance. Up to 120 daily vehicle trips will occur directly in front of the Ranger residence during test drilling (Table 4.7-13), up to 140 daily vehicle trips during the construction phase (Table 4.7-14), and up to 44 daily vehicle trips during the operations phase (Table 4.7-15). These trips may increase if the workers left the site for lunch or for other errands. In addition, Mitigation Measure N1-c could relocate construction parking and staging north of the Ranger residence (p. 4.5-23), and the potential impacts to the Ranger residence from implementation of this Measure have not been evaluated. The Proposed Project would increase daytime and nighttime noise and vibration levels, which would adversely affect the Ranger residence, and may affect the Ranger's ability to effectively address emergency situations, such as a potential wildfire on the Preserve. Section 4.12, Fire Protection and Emergency Services, states that the Ranger at this residence is an existing resource to be used in case of fire or emergency, and Mitigation Measures FP-2a and FP-2b specifically reference use of the Ranger residence to mitigate for PHLNHPA-41

increased risk of wildfires (p. 4.12-20). Permanent relocation of the Ranger residence is recommended as mitigation for these impacts. Additionally, it is suggested that the Ranger be relocated, possibly off-site, during the most active and intense activities associated with the Proposed Project.

3. Noise Impacts Evaluated Using the Incorrect Land Use Category

The revised DEIR places the Preserve in the same City General Plan Noise Guidelines land use category as playgrounds and neighborhood parks (p.4.5-20), where noise exposure up to 70 dBA is considered acceptable (Figure 4.5-3, p. 4.5-19). However, the Preserve is not a playground – there are no swing sets, sandboxes, or jungle gyms – and it is not a neighborhood park – no barbeque pits, softball fields, playgrounds, basketball courts, picnic tables or touch-football games. Visitors to the Preserve come to walk, hike, or ride the trails, catch a glimpse of the local wildlife, and enjoy the solitude. Utilizing Table 4.5.6 Exterior Noise Standards for Los Angeles County on page 4.5-14 of the revised DEIR, the Preserve should be in Noise Zone I as a noise-sensitive area, with an Exterior Noise Level of 45dBA. At the very highest, the Preserve should be on a par with Noise Zone II, which includes residential properties and has an Exterior Noise Level of 45-50 dBA. Because the higher dBA level is used, the revised DEIR inaccurately concludes that Project test drilling, drilling and operations would not exceed General Plan noise limits at six Preserve locations (Tables 4.5-9, p. 4.5-29; 4.5-10, p.4.5-35; 4.5-12, p. 4.5-40, 4.5-14, p. 4.5-46). PHLNHPA-42

Residual Impacts
The revised DEIR states that, "The noise reduction methods in the mitigation measures are established practices in the drilling industry that reduce noise levels in urban drilling situations." (p.4.5-31) As the Preserve is not an urban drilling situation, the effectiveness of the revised DEIR mitigation measures in protecting wildlife from significant unavoidable impacts cannot be evaluated and must be discussed in the Final EIR. PHLNHPA-43

Within Section 2.0 Project Description, it is stated that, "During the grading process, branches and leaves that are encountered would be collected, shredded, and turned into mulch." (p. 2-34) The shredding equipment is not listed in Table 2-7; impacts of the emissions and noise from the shredding equipment must be evaluated in the Final DEIR.

See further discussion and explanation of noise and vibration impacts and proposed mitigation in the Biological Resources and Comparison of Proposed Project Alternatives sections of this letter.

Section 4.6 Aesthetics and Visual Resources

Mitigation Measure AE-1a for the Proposed Project states that native-vegetation landscaping shall be planted at the periphery of the property to beautify and screen the operations from

adjacent land uses, including recreation (p. 4.6-2). However, this Measure should be clarified to state that the planting will occur at the periphery of the Proposed Project Site, as it is unknown which "property" is referred to in the existing measure. Also, this Measure states that the Preserve and a certified landscape architect shall implement and monitor compliance with the landscape plan. The Habitat Authority will need to be compensated for implementing this Measure, including hiring the landscape architect to implement it. PHLNHPA-44

Impacts AE.1, AE.2, and AE.2 state that views of the access roads and facility equipment have impact to aesthetics; in the case of the drilling rig, significant and unavoidable impacts. However, required fuel modification also has the potential to impact views from recreational trails and public viewing locations, and should be evaluated in the Final EIR. PHLNHPA-45

Section 4.7 Transportation and Circulation

The revised DEIR notes that during the Construction phase, 312 daily truck trips would be required for soil export (Table 4.7-14), in order to transport the approximately 149,000 cubic yards of soil offsite (p. 2-26). This increase in truck traffic along the North Access Road would create a critically substantial increase in traffic along this road through the Core Habitat, resulting in a tremendous increase in associated noise, human presence, and vibration. The Habitat Authority strongly encourages any measures that would drastically reduce these truck trips, perhaps by retaining some or all of the cut soil on-site or by reducing the amount of cut material necessary. The previous DEIR noted that cut and fill for the Consolidated Site Alternative (which is the Proposed Project in the revised DEIR) would be similar to the originally Proposed Project, which would result in approximately 22,000 cubic yards of excess soil. This is substantially less than the cut soil under the newly Proposed Project in the revised DEIR, which is likely a result of attempts to reduce visual impacts from the drill rig by lowering the elevation of the drilling pads which requires massive grading. However, as noted in the Aesthetic and Visual Resources section of the revised DEIR, visual impacts from the drilling rig would still be significant and unavoidable despite additional mitigation. PHLNHPA-46

Section 4.8 Hydrology and Water Resources

Mitigation Measure WR-2a lists several measures that would be used to protect exposed soils from erosion, control sedimentation, and stabilize soils. The measures listed include the use of geotextiles, mulches, hydroseed, drainage swales, and straw wattles. These materials should be certified to be free of invasive plants and seeds. PHLNHPA-47

Section 4.11 Land Use and Policy Consistency Analysis

1. The Proposed Project is inconsistent with the City's General Plan Policies.

The Proposed Project as currently presented is inconsistent with several of the City's General Plan Policies. Because of reasons already explained in this letter they are not consistent with Land Use Goal 4 Policy 4.1 which is to, "Encourage new industrial development to be sensitive to adjacent or nearby properties and to be compatible with the environment." Also,

as acknowledged in the DEIR the Proposed Project is not consistent with the following: Environmental Resource Management Element (ERME) Goal 1 Policy 1.3, ERME Goal 3 Policy 3.1, ERME Goal 3 Policy 3.2, *and* ERME Goal 3 Policy 6.2; ERME Goal 7, Policy 7.1 and Policy 7.4. PHLNHPA-48

2. The Proposed Project is inconsistent with the RMP's Policies.

The current Proposed Project is also inconsistent with the Habitat Authority's Resource Management Plan (RMP), which was approved in 2007 to act as a comprehensive long-term management plan for the Preserve. The areas of conflict as recognized in the DEIR include RMP Goal BIO-3 and RMP Goal VISUAL-1. Other areas of conflict not recognized in the DEIR are Goal BIO-3 Objectives 3.1 and 3.7, as well as Goal VISUAL-1 Objective 1.3 and Goal USE-1. PHLNHPA-49

Section 4.14 Recreation

1. The Final EIR should consider impacts to recreation, and compatibility with the City's General Plan and the Habitat Authority's RMP policies as a result of closing the Colima Service Tunnel and possibly limiting access at the Arroyo Pescadero trailhead during drilling and construction activities.

As noted above, as mitigation for Proposed Project impacts to wildlife, the Habitat Authority suggests limiting public access at the Arroyo Pescadero Trailhead and Arroyo San Miguel Trail to the public during construction and drilling activities. Limiting public access at the trailhead should be considered not only to help protect the biological integrity of the Preserve as described in the Biological Resources Section of this letter, but to mitigate for impacts to visitor safety particularly during construction of the pipeline under the Arroyo Pescadero Loop Trail. Speed bumps and speed limits should also be implemented along the Loop Trail to ensure that future ongoing monitoring of the pipeline does not result in adverse impacts to recreational users (10 mph was previously recommended as Mitigation Measure BIO-4c.). As a result of this mitigation measure, it would cause a new significant impact to recreation which must be mitigated. As mentioned in the Habitat Authority's NOP comment letter, the Arroyo Pescadero Trailhead is the third-busiest trailhead of the Preserve according to a visitor user survey conducted for the Habitat Authority by USC[57]. This recreational use may be transferred to other local trailheads (Hellman Park or Turnbull Canyon) in the City. Please consider enhancing recreational experiences elsewhere at Whittier trailheads to mitigate for this significant recreational impact. PHLNHPA-50

2. The Final EIR should analyze impacts and potential mitigation to outdoor educational programming.

[57] Martino, D., T. Longcore, and J. Wolch. 2006. *Park Visitor User Survey for the Puente Hills Landfill Native Habitat Preservation Authority*. University of Southern California, Center for Sustainable Cities, Los Angeles, California.

A high percentage of Habitat Authority-sponsored interpretive (educational) programming for children grades Kindergarten through sixth grade, as well as for adults, occurs at the Arroyo Pescadero Trailhead because of its central location, bathroom facilities, and because it has the only the outdoor seating area in the Preserve. Typical sizes for the youth groups are 50 to 150 children per visit. When looking at the timeframe between January 2010 and June 2010, about 38 percent of interpretive programming participation (1,045 individuals) occurred at this trailhead. The suggested trail closures as described above, as well as other impacts including noise and visual impacts, may affect the Habitat Authority's interpretive, educational, and outreach efforts. The DEIR did not discuss impacts resulting from vehicle trips (disturbance and noise) along the Arroyo Pescadero Loop Trail to large school groups. The DEIR did not analyze potential negative impacts to outdoor educational programming and applicable mitigation, as requested by the Habitat Authority in response to the NOP. PHLNHPA-51

Section 6. Comparison of Proposed Project Alternatives

The Habitat Authority supports consideration of any alternatives that would place the Proposed Project outside of the Core Habitat, would minimize the overall edge effects (including from use of roads within the Preserve), and would place the Proposed Project along the edge of the Preserve where edge effects are already occurring due to adjacent land use activities (as opposed to introducing new edge effects into habitat which is currently more buffered from edge effects).

1. Savage Canyon Landfill Alternative

As such, we support the Savage Canyon Landfill alternative, which would be located on the very edge of the Core Habitat and on the edge of the Preserve, in an area already subject to substantial disturbance and human activity. The revised DEIR states that this alternative would have biological disadvantages as it would (1) place construction and drilling disturbances closer to occupied gnatcatcher habitat, and (2) would place these disturbances closer to "High Quality" habitat which could negatively affect wildlife movement. However, the Biological Resources section of the revised DEIR suggests that gnatcatchers are not adversely affected by construction activities (p. 4.2-21), thereby negating this argument as a disadvantage for this alternative. In addition, the Proposed Project would require direct removal of occupied gnatcatcher habitat along the North Access Road and would route traffic immediately adjacent to occupied habitat, whereas the Savage Canyon Landfill alternative would not. Also, the argument that this alternative has a disadvantage over the Proposed Project due to its proximity to areas mapped as high quality habitat is inappropriate. As acknowledged in the revised DEIR (p. 4.2-37), these high quality habitat areas were identified based on their composition of native and non-native plant species, and were not based on their potential to support wildlife movement. The non-native composition of habitat is not the only factor dictating the potential for an area to be used for wildlife movement; other important factors include topography, habitat structure, species-specific habitat preferences, and human activity and development. In fact, many studies of bobcat movement and activity consider only the degree of existing development as a habitat variable, and not the percent of native or

non-native plant cover[58,59,60,61]. Protecting the Core Habitat from direct and indirect Proposed Project impacts is much more important than protecting one or two much smaller areas mapped as high quality habitat from indirect impacts. As discussed at length above, Core Habitats are critical for providing wildlife habitat buffered from edge effects and facilitating movement through a corridor, and they have higher native carnivore abundances. In addition, the Proposed Project's North Access Road would put related edge effects much closer to several of these mapped high quality habitat areas.

PHLNHPA-52

The revised DEIR acknowledges that the Savage Canyon Landfill alternative would have less impact to Biological Resources than the Proposed Project (p. 6-33 through 6-35), and it would have the same amount of significant unavoidable impacts as the Proposed Project (p. 6-54). The analysis of the Savage Canyon Landfill alternative states that it has a significant unavoidable impact regarding land use because it is unclear if permits can be obtained and they may take a long time to get; however, the feasibility and time frame for permitting are unknown regardless of whether the Proposed Project or an alternative are implemented. If the feasibility and time frame of permitting for this alternative were truly a concern, then it would not have been evaluated as a viable alternative in the revised DEIR. Please include in the Final EIR a further discussion of State and federal laws governing landfill operations, and why permitting for this alternative would be infeasible. In addition, although the analysis in Section 6 states that this alternative would reduce the life of the Landfill (p. 6-14), it also states that the Landfill will be providing waste disposal to the City for the next 45 years; since the Proposed Project (lease period) only has a lifespan of 25 years, it is possible that most of this area could again be used for waste disposal following completion of the Proposed Project. In addition, the royalty payments received by the City for the Project's oil production operations could be used to transport waste to another landfill site, offsetting the potential reduced life of the Landfill. As such, this impact may not be significant and unavoidable, and would result in fewer significant and unavoidable impacts compared to the Proposed Project.

The revised DEIR states that drilling from the Landfill site would most likely reduce the amount of oil the Project proponent could access; one of six project objectives for the Project Proponent is to "Maximize oil and gas production from the field, thereby maximizing royalty payments to the City of Whittier." However, CEQA Guidelines state only that most project objectives should be satisfied by project alternatives, not all.

2. North Site Alternative

The Habitat Authority also supports further analysis and consideration of the North Site and associated Hadley Street Access (as discussed in Section 5). Although this is less favorable than the Savage Canyon Landfill alternative, as it would require the removal of native habitat, it would also place the Proposed Project outside of the Core Habitat, it

PHLNHPA-53

[58] Riley, S.P.D., et. al. 2003. *Ibid.*
[59] Riley, S.P.D. 2006. *Ibid.*
[60] Lyren, L.M., et. al. 2008. *Ibid.*
[61] Tigas, L.A., Van Vuren, D.H., and Sauvajot, R.M. 2002. Behavioral responses of bobcats and coyotes to habitat fragmentation and corridors in an urban environment. *Biological Conservation, 108*, 299-306.

would be on the edge of the Preserve, and would have a much shorter road and fewer associated edge effects.

3. Loop Road Alternative

The Habitat Authority does not support the Loop Road Alternative, as it could significantly impact wildlife movement. Although this alternative would minimally reduce the amount of sensitive habitat removed, would reduce impacts to gnatcatcher habitat, and would be located outside of the Core Habitat, it would be located in an area that has been shown to have the highest bobcat activity levels in the entire Preserve, and the substantial increase in noise and traffic in this area could significantly affect wildlife movement through the area. And considering that the Loop Trail serves as the primary route to the Colima Service Tunnel, this alternative could severely limit use of the Tunnel, possibly forcing wildlife to cross Colima Road at the upper portion where a large mammal roadkill hotspot has been identified. Although limiting recreational use in this area and constructing a wildlife overpass could help reduce this alternative's impacts, these mitigations are unlikely to reduce impacts to less than significant levels as this alternative could severely compromise the use of the Colima Service Tunnel and a documented high bobcat activity area. PHLNHPA-54

4. Catalina Avenue Access Alternative

The Habitat Authority strongly supports further analysis and consideration of the Catalina Avenue Access Alternative, as discussed in Section 5. Use of Catalina Avenue during the construction and/or operations phase would substantially reduce impacts to Biological Resources, as it would be located on the edge of the Core Habitat and Preserve where edge effects already occur, would use a much shorter route resulting in reduced edge effects, and would not result in impacts to occupied gnatcatcher habitat. This alternative would substantially reduce impacts to gnatcatchers, wildlife movement and native wildlife nursery sites. Even if this route is expanded into the ravine next to Catalina Avenue, as suggested on page 5-16 of the revised DEIR, utilizing this route would still result in reduced Biological Resource impacts, even though it may result in impacts to an intermittent creek. The revised DEIR states that this sub-alternative would result in more biological impacts than the Proposed Project, but does not provide any analysis to support this statement, despite the fact that it would significantly reduce impacts regarding wildlife movement, native nursery sites, and gnatcatchers. Catalina Avenue should be used for the test drilling phase and the operations phase, as the revised DEIR notes that traffic impacts during both of these phases could be mitigated (p. 5-16). The Transportation and Circulation section notes that traffic impacts during the test drilling phase could be reduce to less than significant with mitigation, and since traffic levels during the operations phase would be less than the test drilling phase (Tables 4.7-13 and 4.7-15), those impacts could similarly be reduced. This would eliminate long-term impacts to the Core Habitat through use of the North Access road during the operations phase, which could result in permanent impacts to wildlife movement and native wildlife nursery sites due to substantial increases in truck traffic and associated effects (increased noise, human presence, vibration) over the 25- year life of the Proposed Project (lease PHLNHPA-55

period), or longer if an extension is later approved. In addition, the Habitat Authority would like the Final EIR to consider ways to reduce traffic impacts during the construction phase such that Catalina Avenue could be used exclusively during this phase, completely avoiding use of the North Access Road. For example, Mitigation Measure T-1c requires limits on traffic on Catalina Avenue to mitigate for traffic impacts during the test drilling phase, and it may be possible to similarly limit traffic during the construction phase in order to mitigate for significant impacts, even if it means prolonging the construction period in order to accommodate the reduced number of vehicles.

5. Consider Reduced Number of Wells as an Alternative

Please consider including an alternative that would reduce to 30 the maximum number of wells that can be drilled. This will limit the time the Preserve is exposed to the adverse impacts of drilling, re-drills and workovers, perhaps prompting wildlife with generational memory of the pre-drilling conditions to return to the Core Habitat area. PHLNHPA-56

Section 7. Other CEQA Mandated Sections

7.2 Growth Inducing Impacts, 7.2.3 Precedent Setting

Section 15126.2 (d) of CEQA Guidelines requires that the EIR discuss the characteristic of a Project which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. The DEIR explains that the Proposed Project is not precedent-setting because the Whittier Zoning Ordinance allows for the proposed use with a conditional use permit. However, the land is currently regulated by Los Angeles County Proposition A funds which allows for uses of this nature only with compensatory actions. Should the County and City work out an agreement to allow this Proposed Project, a precedent for this activity will be set. The City owns other open space properties purchased with Proposition A funds and without a conservation easement, as recommended, or other surface restrictions in place over them, this Proposed Project could be replicated elsewhere in the hills of Whittier. Given that there are significant impacts with this Proposed Project, another oil operation elsewhere in the hills would have significant effects – and significant cumulative effects – as well. PHLNHPA-57

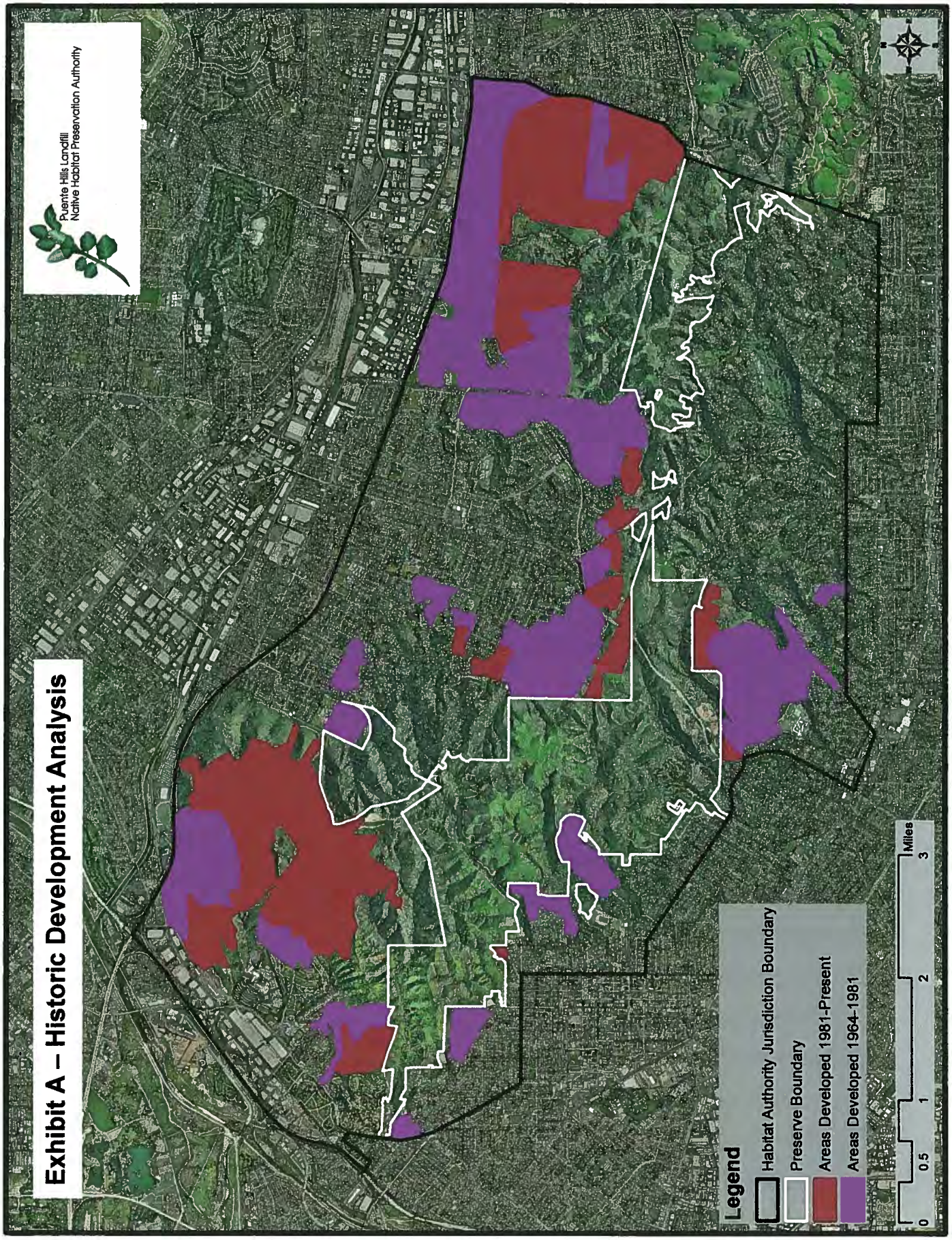
Additional Measures

Additionally, due to the complexity of the measures with a Project of this large scale, consideration should be given to requiring that Matrix Oil hire qualified consultants including a biological consultant with the expertise to administer the mitigation monitoring plan to ensure that all timelines and criteria are met. This consultant should be familiar with CEQA and have experience administering mitigation and monitoring programs. PHLNHPA-58

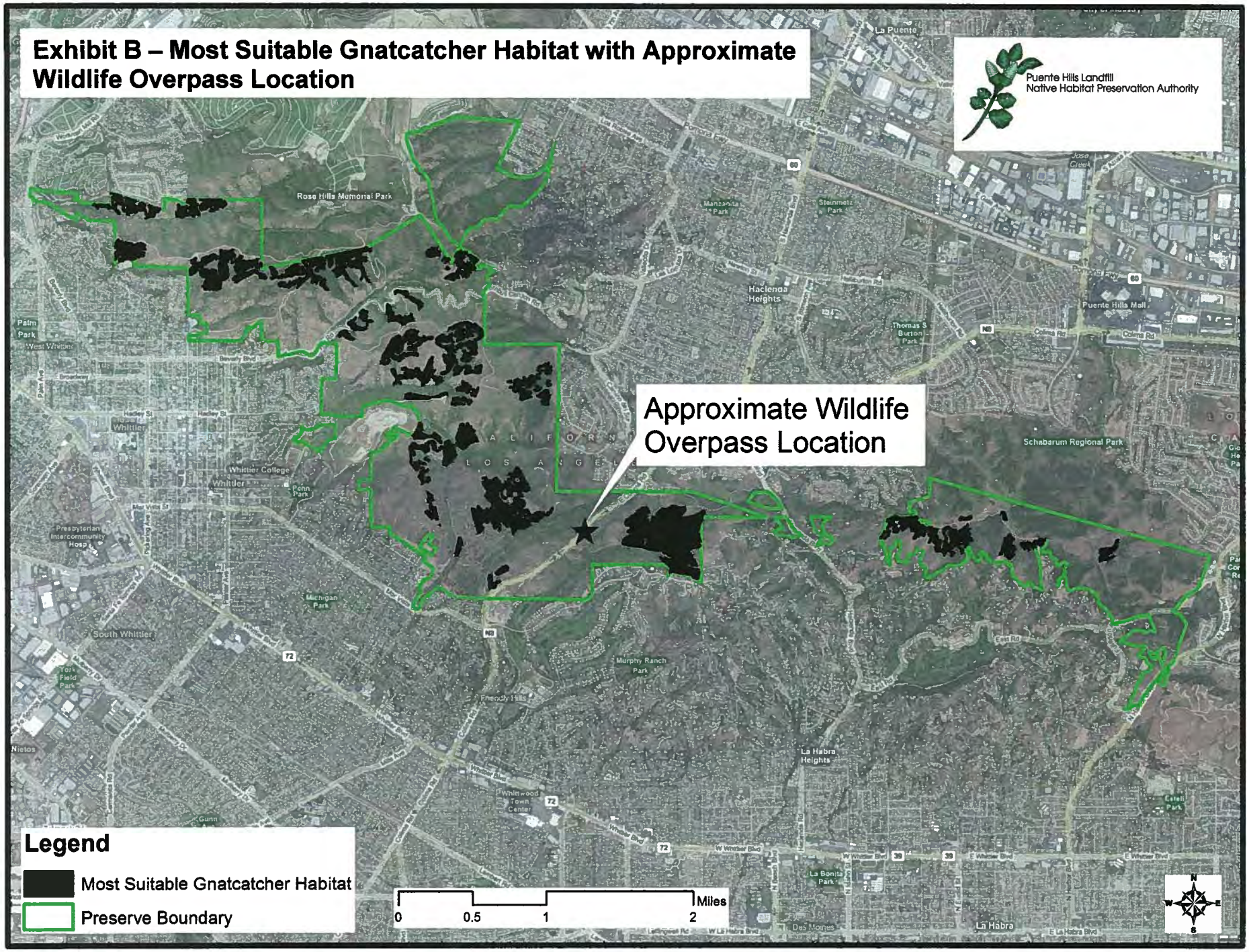
The Habitat Authority manages its member agencies' properties with the assumption that they will remain as undisturbed open space by investing its general fund resources to support restoration, biological studies, volunteer coordination, ranger patrol, outdoor education, administration and other Projects. To maximize the efficiency and effectiveness of the PHLNHPA-59

Habitat Authority's efforts and to avoid future impacts to the ecological functioning of the Puente Hills Preserve and the Puente-Chino Hills Wildlife Corridor, please consider ways to avoid future surface development of City open space properties by placing conservation easements over City-owned parcels, either through the CEQA process, conditional use permit, specific plan, General Plan amendment, or through some other process

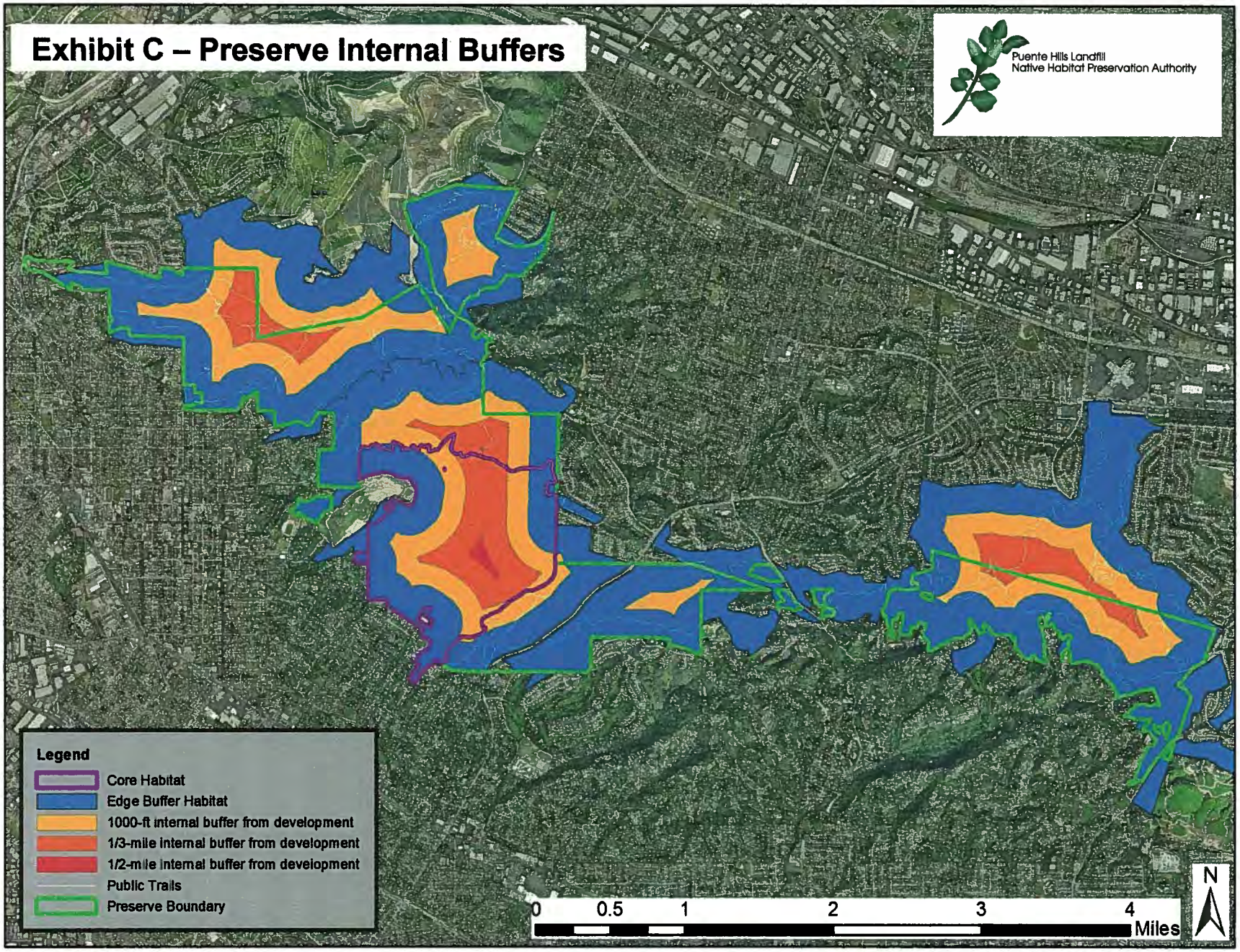
Exhibits:
A. Historic Development Analysis
B. Most Suitable California Gnatcatcher Habitat
C. Preserve Internal Buffers
D. Reduced Buffered Habitat From Proposed Project



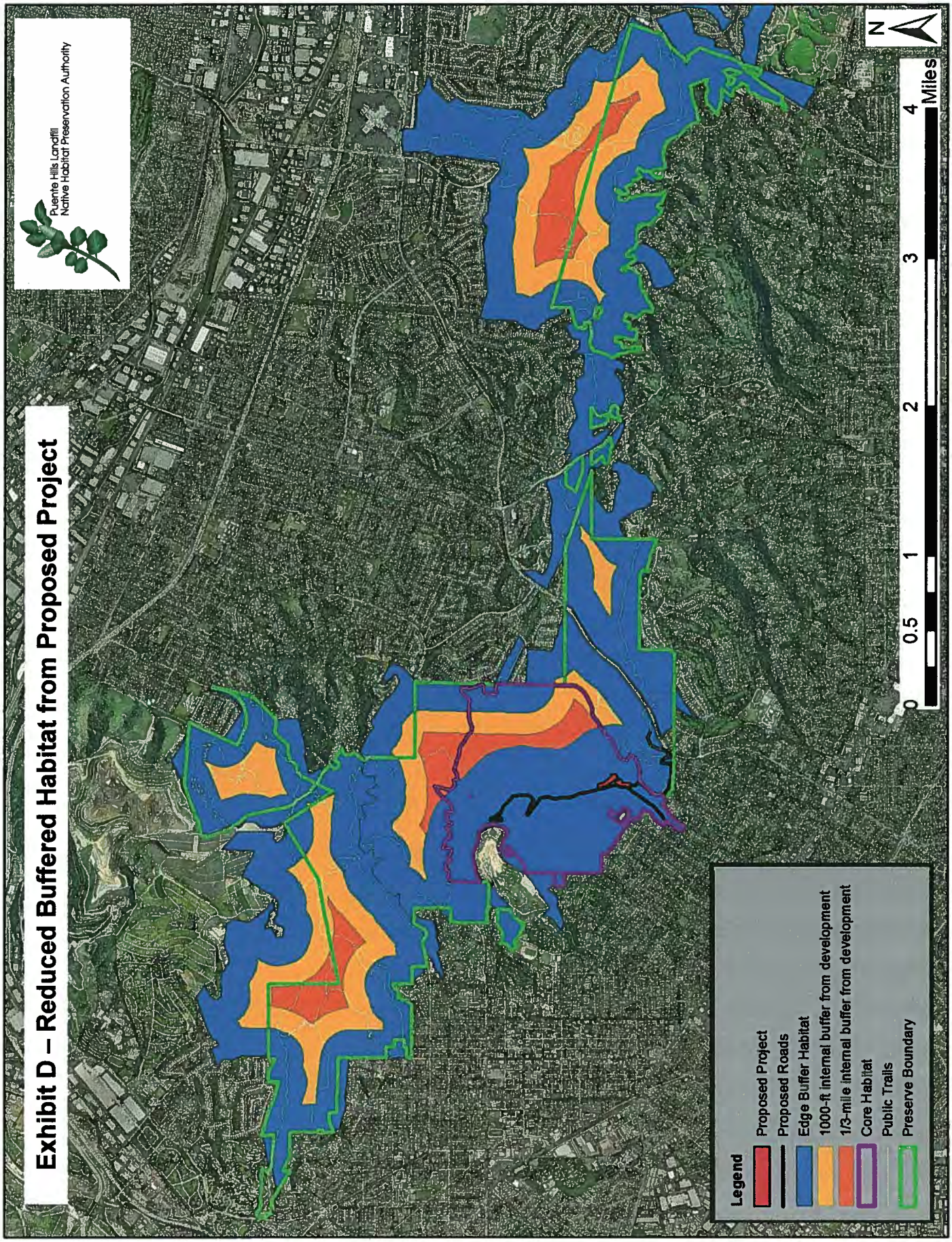
NOTE: "Areas Developed 1964-1981" were derived from areas noted as new development on the USGS topography quadrangle maps which were originally produced in 1964 and then photorevised in 1981 to show newly-developed areas. "Areas Developed 1981-Present" were derived by comparing current aerial photography to the developed areas on the USGS map. Developed areas shown are those that are, or were, contiguous at one time with currently undeveloped land located with the Habitat Authority's Jurisdictional Boundary.



NOTE: Most Suitable Gnatcatcher Habitat areas were determined during Preserve-wide protocol-level coastal California gnatcatcher surveys in 2010 (report citation below). *Glenn Lukos Associates. 2010. Results of Protocol Coastal California Gnatcatcher Surveys on Lands Managed or Owned by the Puente Hills Landfill Native Habitat Preservation Authority, Los Angeles County, California. September 17, 2010.*



NOTE: Blue "Edge Buffer Habitat" encompasses all currently undeveloped land within and adjacent to the Preserve, including privately-owned land subject to future development; therefore, these areas and the corresponding buffers could be smaller in the event that one or more of these parcels is developed in the future. Buffer distances are used for illustrative purposes and show the area of habitat that is buffered from existing development by a given distance. Development includes residential, commercial, urban, landfill, cemetery, and oil production uses, as well as public roads. The numerical buffer distances used are from Riley (2006), which noted that the mean minimum distance from female bobcat home-range edge development was approximately ½-mile, and the closest female bobcat home-range distance to development was 1/3-mile. The lowest average radio-location distance of a male bobcat t development was approximately 1,000 feet.



NOTE: "Edge Buffer Habitat" around the Proposed Project and Proposed Roads was created using a 1/3-mile radius; refer to Note on Exhibit C.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

E-mailed: July 21, 2011 July 21, 2011
jadams@cityofwhittier.org

Mr. Jeff Adams
Planning Division
13230 Penn Street
Whittier, CA 90602

Review of the Draft Environmental Impact Report (Draft EIR)
for the Whittier Main Oilfield Development Project CUP 09-004

The South Coast Air Quality Management District (AQMD) appreciates the opportunity to comment on the above-mentioned document. The following comments are intended to provide guidance to the lead agency and should be incorporated into the final Environmental Impact Report (EIR) as appropriate.

Based on a review of the draft EIR the AQMD staff is concerned about the significant air quality and climate change impacts from the proposed project. As a result, the AQMD staff recommends that the lead agency require additional mitigation measures to reduce on-road and off-road diesel equipment exhaust emissions from the proposed project during construction and operational activities. Also, the lead agency should incorporate performance standards and emissions targets into mitigation measure AQ-4 to optimize greenhouse gas emissions reductions and reduce the project's climate change impacts to less than significant. Further, AQMD staff is concerned about the project's potential odor impacts; therefore, the lead agency should disclose the project's potential offsite hydrogen sulfide concentrations in light of the hydrogen sulfide (H_2S) detection limits identified in the draft EIR. Details regarding these comments are enclosed.

Pursuant to Public Resources Code Section 21092.5, please provide the AQMD with written responses to all comments contained herein prior to the adoption of the final EIR. Further, staff is available to work with the lead agency to address these issues and any

other questions that may arise. Please contact Dan Garcia, Air Quality Specialist CEQA Section, at (909) 396-3304, if you have any questions regarding the enclosed comments.

Sincerely,

Ian MacMillan
Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

Attachment

IM:DG

LAC110607-10
Control Number

Significant Localized Operational Emissions and Mitigation Measures

1. In Table 4.1-10 (Proposed Project Operational Criteria Emissions) the lead agency indicates that the project's peak daily emissions for NOx, PM10, and PM2.5 exceed the AQMD's localized significance threshold. For example, the localized operational NOx emissions threshold for the project is 126 pounds per day and the project will result in 887 pounds of NOx per day, however, the lead agency determines that the project's operational impacts are insignificant. Therefore, the AQMD staff recommends that the lead agency provide further evidence demonstrating that the project will have less than significant localized impacts in the final EIR. SCAQMD-1

In addition, to reduce the project's localized operational air quality impacts the lead agency should revise the first bullet of mitigation measure AQ-2b as follows:

- ✓ All drilling engines shall meet the Tier 4 emission standards, where available. In addition, all drilling engines shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the lead agency shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. SCAQMD-2

Construction and Test Drilling Mitigation Measures

2. Given that the lead agency's construction air quality analysis demonstrates significant regional and localized air quality impacts from NOx emissions the AQMD staff recommends that the lead agency provide additional mitigation pursuant to CEQA Guidelines §15126.4. Specifically, AQMD staff recommends that the lead agency replace the first requirement (first bullet) of Mitigation Measure AQ-1d with the following:

- ✓ All offroad diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the lead agency shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. SCAQMD-3

Also, AQMD staff recommends that the lead agency revise the sixth bullet in mitigation measure AQ-1d to provide additional mitigation for off-road dump trucks. Specifically, the AQMD staff recommends that the lead agency revise this bullet as follows:

- ✓ During the pad and access road grading phase, all off-road dump trucks shall meet EPA 2010 model year NOx emission requirements. If the lead agency determines that a 2010 model year truck fleet or portion thereof cannot be obtained the lead agency shall use trucks that meet EPA 2007 model year NOx emissions requirements. In the event that the project's fleet requirements cannot be met with 2010 or 2007 EPA model year truck emissions or portion thereof the lead SCAQMD-4

agency should require a certified NOx emissions level of less than 2.0g/bhp-hr for trucks used at the project site during the pad and access road grading phase.

Further, given that there are sensitive receptors surrounding the project site (i.e., residences and a school) the AQMD staff recommends in addition to the measures above the lead agency provide measures to further reduce the project's localized air quality impacts from PM10 and PM2.5 emissions. For example, the lead agency should coordinate with school staff to minimize operational activities during playground hours at the nearby school and during peak hours for outdoor activities at the nearby residences. SCAQMD-5

Greenhouse Gas Emissions Mitigation

3. Mitigation measure AQ-4 requires the project proponent to implement a program to quantify and reduce GHG emissions. Further, the lead agency identifies measures and programs that could be implemented to reduce GHG emissions, such as planting trees, installing solar panels on city building and structures, and obtaining offsets through the Climate Action Reserve. However, the lead agency does not set performance standards and feasibility standards for mitigation measure AQ-4. Without these components, the mitigation measure does not have any enforceable mechanism to actually reduce GHG emissions from this project. As the 14,720 metric tons of CO2e per year from the operation of this project are considered a significant impact, the lead agency must ensure that enforceable measures are in place to reduce GHG emissions. Also, the lead agency should note that AQMD's Regulation XXVII provides a voluntary program for certified GHG emissions reductions. SCAQMD-6

Odor/Hydrogen Sulfide Emissions

4. In Section 4.1.4.3 (Potential Operations Odor Emissions) the lead agency indicates that sulfur compounds found in oil and gas have very low odor thresholds. Specifically, the lead agency states that H_2S can be detected by humans at concentrations from 0.5 parts per billion (ppb) to 40ppb (0.5 ppb detected by 2 percent of the population and 40 ppb qualified as annoying by 50 percent of the population). However, the lead agency does not present the potential maximum concentrations of H_2S released by the proposed project nor does the lead agency disclose the impact of the release of H_2S to nearby receptors (i.e., the school, park, and residences). Therefore, the AQMD staff recommends that the lead agency explain the aforementioned detection limits in light of the proposed project in the final EIR. SCAQMD-7

Appendix M

Responses to Government Agencies' Comments

Whittier Main Oil Field Development Project
Revised Environmental Impact Report
Public Draft Comments
Government Agencies

California Department of Fish and Game

CDFG2-1	The Project as proposed does not require a rezone because drilling and production of oil, gas, and other hydrocarbons is allowed in all zones in the City of Whittier (including the Open Space Zone that the proposed Project would be located in) with the approval of a conditional use permit. Please refer to Section 18.52.030 A of the City's Zoning Ordinance and to page 4.11-13 of the EIR for further information.
CDFG2-2	As indicated in response CDFG2-1 above, no rezone is required for the Project. Thus, the commenter's assertion that environmental analysis of a rezone of the Project site is required is incorrect. Further, the Oil, Gas, and Mineral Lease between the City and Matrix did not confer any rights on Matrix to proceed with the Project as the lease expressly acknowledges that oil drilling and exploration cannot occur unless Matrix applies for and receives approval of a conditional use permit. Likewise, the City's action in entering into the lease agreement did not commit the City to any course of action in moving forward with the Project as the Project is contingent on Matrix applying for and the City approving a conditional use permit. As such, the City in preparing this EIR has conducted environmental analysis of the whole of the Project (including potential approval of the conditional use permit) in full compliance with the California Environmental Quality Act.
CDFG2-3	Please see response CDFG2-2 above. Based on this response, no piecemealing has occurred.
CDFG2-4	Please see response CDFG2-2 above.
CDFG2-5	Comment noted. Please also see response CDFG2-2 above.
CDFG2-6	The Department's recommendation for the No Project Alternative is acknowledged. The City will consider the No Project Alternative along with the proposed Project and other alternatives at a public hearing to be held on the Project.
CDFG2-7	Language in Section 4.2, Biological Resources of the Final EIR has been modified to clarify the point. The Draft EIR's point concerning prior drilling activities at the Project Site was to demonstrate that those activities did not result in a permanent loss of suitable habitat for sensitive and other wildlife species as evidenced by the fact that bobcats are currently present in the area. For many decades this area was subject to much more intensive drilling than is being proposed, and without biological mitigations. This would seem to suggest that 30 more years of limited drilling as proposed, with mitigation, would not have a dramatic level of impact upon local wildlife populations.
CDFG2-8	Section 4.3, Safety and Risk, discusses the 2005 Honolulu Terrace fire that caused impacts at the area around Honolulu Terrace (outside of the preserve). In addition, section 4.1, Air Quality, discusses historical odor events and section 4.5, Noise and Vibration, includes information on historical noise complaints associated with the Honolulu Terrace facility. Section 4.12, Fire Protection and Emergency Response, discusses historical wildfires in the area, although none of them were know to be attributable to oil and gas operations.

County of Los Angeles Fire Department

CLAFD-1	The Final EIR has been updated to include Battalion 21 in addition to Battalions 8 and 12.
CLAFD-2	The Final EIR has been updated to include Fire Station 43.
CLAFD-3	The Final EIR has been updated to include the correct address for Fire Station 15.
CLAFD-4	The Final EIR has been updated to include Fire Station 43 data. Fire Station 105 has been deleted.
CLAFD-5	The Final EIR, Table 4.12-1, has been updated.
CLAFD-6	Secondary access has been provided for the project along the Loop Trail Road.
CLAFD-7	The proposed Project would be submitted to the Fire Department for review and permits. Mitigation measures related to code compliance audits and fire water supplies are included in the Draft EIR.
CLAFD-8	The proposed Project is described as being located in a Very High Fire Hazard Severity Zones. Mitigation measures related to code compliance audits, requiring that the facilities "design and construction comply with applicable codes and standards" (mitigation measure FP-1c) and fire water supplies are included in the Draft EIR.
CLAFD-9	The comment is acknowledged. The proposed Project would be submitted to the Fire Department for review and permits. The Fire Department can require additional life safety conditions as appropriate under its jurisdiction.
CLAFD-10	The proposed Project would be submitted to the Fire Department for review and permits. Mitigation measures related to code compliance audits, including Fire Department requirements, and requirements that the facilities "design and construction comply with applicable codes and standards" (mitigation measure FP-1c) are included in the Draft EIR.
CLAFD-11	Comment regarding 10-foot brush clearance on access roads is acknowledged and has been included in the impact analysis. Requirements related to overhead clearance would be handled during the Fire Department permit phase and do not generate impacts in the EIR.
CLAFD-12	The proposed Project would be submitted to the Fire Department for review and permits. Preliminary review indicates that the only portion exceeding a 15% grade is within the landfill, and this area would be improved to meet Fire Department requirements.
CLAFD-13	The proposed Project would be submitted to the Fire Department for review and permits. Mitigation measures related to code compliance audits, including Fire Department requirements, are included in the Draft EIR.
CLAFD-14	Mitigation measures have been included which would increase the fire flows as proposed by the Applicant and as required by the Fire Department. There are fire water sources nearby which reportedly could provide these flow levels. Note that the proposed Project only proposed a single, small office building and most of the oil and gas processing equipment is located outdoors.
CLAFD-15	Fire hydrant spacing requirements have not been provided by the Applicant. The proposed Project would be submitted to the Fire Department for review and permits.
CLAFD-16	The proposed Project appears to meet the Fire Department requirements for turning radii. However, The proposed Project would be submitted to the Fire Department for review and permits.
CLAFD-17	The proposed Project would be submitted to the Fire Department for review and permits.
CLAFD-18	The proposed Project would be submitted to the Fire Department for review and permits and will comply with all applicable legal requirements.
CLAFD-19	The proposed Project would be submitted to the Fire Department for review and permits.
CLAFD-20	Section 4.12, Mitigation Measure FP-1a, requires the field operator to provide sufficient water supply rates and duration and comply with the LACoFD.
CLAFD-21	No specific comment is included on the Draft EIR and, therefore, no response is

	provided. In addition, the proposed Project would be submitted to the Fire Department for review and permits.
CLAFD-22	The proposed Project would be submitted to the Fire Department for review and permits and applicable legal requirements.
CLAFD-23	The proposed Project would be submitted to the Fire Department for review and permits.
CLAFD-24	No specific comment is included on the Draft EIR and, therefore, no response is provided and all applicable legal requirements.
CLAFD-25	CLAFD-25 erroneously omitted in numbering process. No response provided as a result.
CLAFD-26	The Draft EIR addresses erosion control in section 4.4, Geology; watershed management in section 4.8, Hydrology; rare and endangered species in section 4.2, Biological resources; vegetation and fuel management in section 4.12, Fire Protection and Emergency Response; archeological and cultural resources in section 4.9, Cultural Resources; and oak trees are addressed in section 4.2, Biological Resources. The Oak Tree Ordinance would be addressed as part of the permitting stage.
CLAFD-27	The proposed Project is not located within any oak woodland habitat (Figure 4.2-1 and 4.2-2) so there are no impacts identified or mitigation required for this sensitive resource.
CLAFD-28	The proposed Project is not located within any oak woodland habitat (Figure 4.2-1 and 4.2-2) so there are no impacts identified or mitigation required for this sensitive resource.
CLAFD-29	Section 4.12, Mitigation Measure FP-1d, requires the field operator to develop emergency response plans that include, but are not limited to, fire monitor placement, fire water capabilities, fire detection capabilities, fire foam requirements, facility condition relating to fire-fighting ease and prevention, and measures to reduce impacts to sensitive receptors. Requirements related to fuel modification and fire hazard reduction plan have been added to mitigation measure FP-2b. These mitigation measures would be implemented prior to construction.
CLAFD-30	Mitigation measure BIO-1b requires that the applicant restore/replace any disturbed habitat to prevent erosion and invasion by non-native weeds. In addition, the applicant would be required to provide minimum 2:1 areal replacement of all graded slopes outside of permanent impact areas (approximately 8.03 acres) further reducing erosion issues. Erosion control is otherwise addressed in section 4.4, Geology and vegetation and fuel management are addressed in section 4.12, Fire Protection and Emergency Response. Plant species selection would be coordinated with the Habitat Authority.

County of Los Angeles Public Health Bureau of Toxicology and Environmental Assessment

CLAPHBTEA-1	Concurrence from the CLAPHBTEA on noise mitigation is acknowledged. Further, the Proposed Project will be required to comply with all applicable legal requirements relating to noise, including the Los Angeles County Noise Ordinance, as applicable.

County of Los Angeles Public Health Solid Waste Management Program

CLAPHSWMP-1	Clean closure is discussed in Section 5.0, Alternatives. The discussion has been expanded in the Final EIR based on the comments.
CLAPHSWMP-2	Section 2.0, Project Description, discusses Penn Street traffic originating from the Landfill. This discussion examines the historical levels of traffic into and out of the Landfill. The executive summary bulleted item was expanded to include mention of the Landfill traffic.
CLAPHSWMP-3	The EIR states that all waste that is not considered hazardous or that requires special handling is slated to go to the Savage Canyon Landfill. Impacts on the Landfill of transporting wastes to the Landfill were found to be less than significant (see section 4.4.13, Public Service and Utilities).
CLAPHSWMP-4	The discrepancy between the tables and the text in the Traffic Appendix has been corrected in the Final EIR.
CLAPHSWMP-5	The Draft EIR indicates that Landfill truck traffic would remain within historical levels. Therefore, internal Landfill traffic could continue to be managed in the same manner and no internal impacts would occur at the Landfill due to the Proposed Project.
CLAPHSWMP-6	The grade where the North Access Road within the Preserve enters the Landfill would not be modified, as indicated on the diagrams in Appendix A. The grade would remain the same as it is currently. There would not be any impacts to the Landfill associated with the North Access Roadway construction within the Preserve except for the traversing of vehicles through the Landfill.
CLAPHSWMP-7	The grade where the North Access Road within the Preserve enters the Landfill would not be modified, as indicated on the diagrams in Appendix A. The grade would remain the same as it is currently. There would not be any impacts to the Landfill associated with the North Access Roadway construction within the Preserve except for the traversing of vehicles through the Landfill.

City of La Habra

CLH-1	The proposed Project would not introduce any traffic into or through La Habra. Trucks would access the site from Mar Vista Street or Colima Road during Phase 1 and through Penn Street for subsequent phases, most likely via Highway 60 and Interstate 605. Trucks would not travel though La Habra because the city is not along a main road and does not contain roadways that are easy through routes. Section 4.7, Transportation and Circulation, analyzes several potential routes for Project traffic, including Mar Vista Street and Colima Road, Whittier Boulevard and Colima Road, Colima Road and Hacienda Boulevard, and Highway 60 and Hacienda Boulevard; none of these routes are in the City of La Habra. There is no need for a specific condition or mitigation measure to ensure that the analyzed routes will actually be used, as there would be no practical or realistic basis for the truck traffic from the Proposed Project to utilize roadways within La Habra, given the facts stated above.

County Sanitation Districts of Los Angeles

CSDLAC-1	The Los Coyotes Water Reclamation Plant design capacity, current process flow, and independent district data have been corrected in the Final EIR as suggested.
CSDLAC-2	The Los Coyotes Water Reclamation Plant design capacity, current process flow, and independent district data have been corrected in the Final EIR as suggested.
CSDLAC-3	Mitigation measure WAS-1 includes the conditions of the County Sanitation Districts of Los Angeles County for submitting plans for the Proposed Project alignment mentioned in the comment.
CSDLAC-4	If the Project is approved, the Applicant would submit the necessary calculations for wastewater generation volume after preparing construction plans so effluent discharge can be accurately determined. This requirement is captured under mitigation measure WAS-1. In addition, mitigation measure WAS-1 requires a 7-day sewer monitoring program to assess existing capacity and ensure that no adverse impacts will occur.
CSDLAC-5	The letter from the County Sanitation Districts of Los Angeles County dated February 26, 2010, stated that the Los Coyotes Water Reclamation Plant had a design capacity of 37.5 million gallons per day and was currently processing an average flow of 23.3 million gallons per day. The letter from the County Sanitation Districts of Los Angeles County dated December 6, 2010, stated that the Los Coyotes Water Reclamation Plant had a design capacity of 37.5 million gallons per day and was currently processing an average flow of 26.8 million gallons per day. The letter from the County Sanitation Districts of Los Angeles County dated July 20, 2011, stated that the Los Coyotes Water Reclamation Plant had a design capacity of 37.5 million gallons per day and was currently processing an average flow of 20.8 million gallons per day. The Final EIR uses the calculations in the most recent letter on July 20, 2011.
CSDLAC-6	The comment is in reference to an earlier version of the Project and an earlier EIR. Mitigation measure WAS-1has been updated in this Final EIR to include the conditions of the County Sanitation Districts of Los Angeles County. All required fees will be paid in connection with required permits.
CSDLAC-7	The comment is in reference to an earlier version of the Project and an earlier EIR. Mitigation measure WAS-1has been updated in this Final EIR to include the conditions of the County Sanitation Districts of Los Angeles County. Sufficient wastewater service necessary for the Proposed Project will be verified before the project is implemented.

Department of Conservation, Division of Oil, Gas and Geothermal Resources

DOGGR-1	Text relating to the requirements of DOGGR has been added to Section 4.3 in the Final EIR relating to the review of proposals, observing and inspecting work/wells, tests/inspections of equipment or facilities and safety measures of wells, etc.
DOGGR-2	Text relating to the requirements of DOGGR has been added to Section 4.3 in the Final EIR.
DOGGR-3	Text relating to the requirements of DOGGR has been added to Section 4.3 in the Final EIR.
DOGGR-4	Mitigation measure SR-1a includes the recommended site security measures, as prescribed by DOGGR.
DOGGR-5	Information on DOGGR procedures has been added to the Final EIR relating to abandoned wells consistent with the comment.
DOGGR-6	Information on DOGGR procedures has been added to the Final EIR relating to abandoned wells consistent with the comment.
DOGGR-7	Information on DOGGR procedures has been added to the Final EIR relating to abandoned wells consistent with the comment.
DOGGR-8	Information on DOGGR procedures has been added to the Final EIR relating to abandoned wells consistent with the comment.

Department of Resources, Recycling and Recovery

DRRR-1	The traffic from the proposed Project would pass directly though the Landfill and the City Public Works Department has been involved in the assessment of the Draft EIR and the associated impacts. The Project is not expected to significantly impact the traffic circulation and operations at the Landfill.
DRRR-2	The requirement for changes to the Landfill operations to be submitted to the Department of Public Health is acknowledged.

Los Angeles County Regional Park and Open Space District

LACRPOSD-1	Please note that the Executive Summary serves as a synoptic version of the environmental document and as such, does not contain the detail contained in the body of the environmental document. Additionally, CEQA does not require the level of detail in the Executive Summary that is being requested by the commenter. Please refer to CEQA Guideline 15123 for the applicable legal requirements. For additional information, we suggest reading the specific sections of the full EIR and Appendices. The comment suggests considering an alternative outside the Habitat Preserve. In fact, the Draft EIR includes analysis of the Project occurring within the Savage Canyon Landfill and outside of the Preserve, consistent with this comment. No other locations were found to be suitable for oil drilling outside of the Preserve that could still achieve some recovery of reserves and meet the various objective of reducing impacts (distance from receptors, etc). Section 6.0, Alternatives, provides for a comprehensive analysis of all the alternatives carried forward in the document along with the impacts of those alternatives and the applicable mitigation measures. It appears, by the nature of the comment, that the commenter failed to review Section 6.0 of the Draft EIR.
LACRPOSD-2	Please note that the Executive Summary serves as a synoptic version of the environmental document and as such, does not contain the detail contained in the body of the environmental document. For additional information, we suggest reading the specific sections of the full EIR and Appendices. Further, as detailed in response LACRPOSD-1, CEQA Guideline 15123 does not require the level of detail being

	requested by the commenter. Table ES-4 included in the Executive Summary details the proposed alternatives for this Project.
LACRPOSD-3	The City's purchase of the property where the Project site is proposed with Proposition A funds raises a legal issue and not an environmental one that requires a response under CEQA Guideline 15088. Although the commenter has framed the issue as an environmental one, there is no specific question under the State CEQA Guidelines Appendix G which requires an analysis of a disposition of property purchased with Proposition A funds. If the Project is approved, the City will comply with all legal requirements under Proposition A. As framed, the Proposed Project would not be able to go forward unless and until the land were permitted to be used for oil extraction consistent with the requirements of Proposition A. This fact has been made public as part of the Draft EIR and the applicant's request for a Conditional Use Permit from the City of Whittier. To the extent the Proposed Project would impact the current use of the property, such impact has been analyzed in the Draft EIR.
LACRPOSD-4	The blue and red lines are labeled in Figure 1-1 to indicate the Puente Hills Landfill Native Habitat Preserve and the City of Whittier.
LACRPOSD-5	The District has taken the position that it is a responsible agency under CEQA because the City is required to obtain its consent for proposed uses or development of the land for anything other than open space or recreational use. However, the District has no discretionary authority under Proposition A that would appear to classify it as a responsible agency under CEQA Guideline 15381. It is clear from Proposition A that the City would be required to either reimburse the District for the area to be used for the proposed Project, or provide a comparable area of land that can be used for open space. However, the District's consent to this arrangement would not amount to discretionary approval authority over the Project to make it a responsible agency under CEQA. Figures 2-6 and 2-7 show the proposed Project boundaries and topography. Appendix A includes more details of the topography and proposed Project facilities and North Access Road.
LACRPOSD-6	Drilling and production of oil, gas, and other hydrocarbons is allowed in all zones in the City of Whittier (including the Open Space Zone that the proposed Project will be located in) with the approval of a conditional use permit. Please refer to Section 18.52.030 A of the City's Zoning Ordinance and to page 4.11-13 of the EIR for further information. Thus, the proposed Project is not inconsistent with the existing land use of open space. Further, as detailed in response LACRPOSD-3, the City's purchase of the property where the Project site is proposed with Proposition A funds raises a legal issue and not an environmental one. Thus, no response is required under CEQA Guideline 15088. Whether or not the site can be used for oil exploration and drilling is determined legally by analyzing Proposition A, and not through an environmental analysis under CEQA. Thus, no further response is required. The impact to change in use has been analyzed in the Draft EIR and necessarily requires the consent of the District and/or compliance with Proposition A in terms of the Proposed Project use. The use is not necessarily incompatible with the City's designation of the use of the property as open space and would not necessarily be incompatible with the use of the property as open space under Proposition A. The incompatibility is a legal issue separate and apart from the environmental issues analyzed in the Draft EIR, but will be addressed prior to any implementation of the Proposed Project.
LACRPOSD-7	Appendix A includes engineering drawings with sufficient detail to assess the impacts of grading and other aspects of the Project; no additional drawings are needed to

	evaluate grading for the Proposed Project, including the use of heavy equipment. Engineering drawings with more details would be developed as part of the detailed permit process with various agencies, but are not reasonably expected to deviate substantially from the grading evaluated in the Draft EIR. The Draft EIR takes into account the areas used by the Proposed Project, including the development of access roads and rights-of-way for underground pipelines. Appendix A includes engineering drawings with sufficient detail to assess the impacts of grading and other aspects of the Project.
LACRPOSD-8	The commenter's meaning is unclear, but they appear to suggest that temporary construction for the oil and gas pipeline under existing City and County streets would impact as much as 855 acres. Temporary pipeline construction outside of the Preserve would be limited to approximately 2.8 miles of City streets. Impacts associated with construction would be temporary and mitigated with appropriate traffic control plans, noise monitoring, and construction limited to specified hours of the day. See Sections 4.5.3 and 4.7.4.7. The County Noise Control Codes limits hours of construction, noise levels and certain activities within a given distances, but none of these Code requirements would be violated with the proposed Project and mitigation measures.
LACRPOSD-9	Section 2.0 of the EIR, Project Description, provides the Project Description consistent with the Conditional Use Permit application, not the lease agreement. The commenter cites a portion of the lease agreement that would require a separate application and distinct environmental review to proceed. The Draft EIR only evaluates the specific drill sites currently applied for by the applicant's Conditional Use Permit, not potential sites which might separately be applied for at some later time under the lease agreement, and which are, by the terms of the lease quoted by the commenter, subject to Lessor's complete and sole discretion as to granting any additional sites.
LACRPOSD-10	The traffic analysis, in Appendix E, makes assumptions about destinations and origins of Project-related traffic to assess traffic impacts. This is standard procedure for traffic analysis and the traffic analysis was prepared in consultation with the City of Whittier Public Works Department. Without any information suggesting a specific route preference, it is reasonable to presume, for analysis purposes, that the traffic will equally use the main north-south thoroughfare routes away from the Proposed Project leading to freeways.
LACRPOSD-11	The only roadways proposed for re-alignment and widening are roadways within the Preserve that are currently dirt roads used historically and would continue to be used for Preserve and oil field access. Some minor modifications associated with traffic safety improvements are suggested as mitigation measures, but no other streets would be widened, stabilized, or re-aligned. The roadways proposed for re-alignment are fully and accurately described in the Project Description section of the EIR. Please see the site access discussion in Section 2.3.1. This description meets the requirements of CEQA Guideline 15124 that specifies a Project Description only needs to include a general description of the Project's characteristics.
LACRPOSD-12	The Applicant provided data on water use and delivery trips and the EIR preparers confirmed this data through comparisons to other Los Angeles area oil and gas projects (and, in the case of the vehicle trips, substantially increased the calculations for the most conservative or worst-case scenario). Information on the LACoFD requirements related to access roads is included in Section 4.12, Fire Protection.
LACRPOSD-13	References are provided for all tables and figures that were not developed by the EIR preparers. Numerous citations are provided throughout the Draft EIR and are included in Appendix J of the Draft EIR.
LACRPOSD-14	The commenter is correct that the list of agencies expected to use the EIR in their decision making is included in the Introduction section. The Final EIR has been updated to include this information in the Project Description section pursuant to State CEQA Guideline 15124.

	As previously stated in response LACRPOSD-5, although Proposition A requires that the lease agreement be submitted to the District, there is no action on the part of the District that would appear to require it to make use of the EIR.
LACRPOSD-15	The commenter is correct that the list of permits and approvals required for the Project is included in the Introduction section. The Final EIR has been updated to include this information in the Project Description section pursuant to State CEQA Guideline 15124. The commenter also asserts that the list of permits and approvals should include the District pursuant to Proposition A. However, this raises a legal issue and not an environmental issue under CEQA. Specifically, under Proposition A the District does not have any discretionary approval authority over this Project, other than ensuring that Proposition A is complied with.
LACRPOSD-16	The Project Description section includes various maps of the proposed Project site, including a topographic map showing the project site pad equipment arrangement. Please see Figures 2-6, 2-7, 2-8, and 2-9. Additionally, Figure 1-1 provides an additional map of the Project site. These maps and figures identify the location of all Project components and areas that could be impacted, including the Project area, disturbed areas, pipeline routes, staging, and parking areas. Detailed topographic maps are also included in Appendix A. It is infeasible or unnecessary to include one map that includes all of the information on all of these separate maps that are already provided. Finally, with respect to the unincorporated area of East La Mirada, it is included in Figure 2-9 for reference purposes only. The comment that it is unincorporated Los Angeles County is acknowledged.
LACRPOSD-17	Table 1-1 in the Introduction section contains the list of environmental review and consultation requirements required by federal, state, or local laws, regulations or policies. Nevertheless, the Project Description Section has been updated with this information in the Final EIR pursuant to CEQA Guideline 15124. Section 15124 requires that a CEQA project description must include certain specified information, "but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact." Specifically, Section 15124 requires a project description to include "[a] statement briefly describing the intended uses of the EIR . . . includ[ing], to the extent that the information is known to the lead agency, . . . [a] list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies." 14 Cal. Code Regs. § 15124 (d)(1)(C).
LACRPOSD-18	Section 4.1, Air Quality, describes impacts in detail and provides numerous mitigation measures to reduce impacts. However, some impacts, even with mitigation, cannot be reduced to less than significant levels with a degree of certainty that allows for the classification of the impacts to be less than significant. These impacts remain significant and unavoidable and would require a statement of overriding considerations by the decision makers for the Project to proceed.
LACRPOSD-19	The reference to the South Central Los Angeles air monitoring station is the location where the highest CO concentration in the basin was measured, not where data was used for the analysis. The Draft EIR consistently utilized the same meteorological data throughout the analysis. For 2008, the monitoring station 84 is correct. For 2009, the monitoring station was relocated and utilized station number 112, according to information on the SCAQMD website. Year 2009 data was not available at the time of the Draft EIR preparation. Therefore, the appropriate designations are used in the analysis, and the most current data has also been utilized. PM emission impacts are determined by the increase in PM levels (the amount of change, being greater than 2.5 ug/m3 over 24 hours or 1.0 ug/m2 annual average) produced by a project, so the background level of PM is irrelevant to determining the

	level of impact for PM. The allowable increases are quite low as the area is current a non-attainment area. Please see the SCAQMD website for air quality significance criteria. Section 4.1, Air Quality, also discusses the significance criteria.
LACRPOSD-20	Table 2-4 in Section 2.0, Project Description, lists sensitive receptors and their respective distances to different Project components. The closest distance is 450 feet to the public Deer Loop Trail, and therefore the more conservative distance of 100 meters was used. However, localized impacts are assessed separately using dispersion modeling to determine the exact impact on nearby receptors. This analysis has been added to the Final EIR section 4.1 4.
LACRPOSD-21	The area of the site used in the localized lookup tables has been revised to the 5-acre size. Five acres would be the maximum amount disturbed on any one day. CalEEMod indicates that grading produces about 0.5 acre of disturbance for each piece of grading equipment. This project proposes to use a total of eight pieces (graders, bulldozers, backhoes, loaders, etc), which would equate to about 4 acres of disturbance at a time. The use of 5 acres was considered conservative. However, localized impacts are assessed separately using dispersion modeling to determine the exact impact on nearby receptors. This analysis has been added to the Final EIR section 4.1 4.
LACRPOSD-22	The Draft EIR clearly states that the SCAQMD significance thresholds for GHG were used in the analysis. This is addressed in Section 4.1.3 and Table 4.1-7.
LACRPOSD-23	The lifecycle of energy use by the Project includes onsite combustion as well as offsite vehicle trips and electricity use. The crude oil and gas produced by the Project would not increase the supply of crude oil in the California market, but it would decrease the amount of crude oil imported by tanker vessel from as far away as Saudi Arabia. The accountings of GHG emissions by the end-use of the fuels are addressed in federal and pending state regulations that require the sellers of finished products to account for the GHG emissions associated with the use of gasoline and diesel. GHG emissions are discussed and balance and evaluate both the direct, indirect impacts of the Proposed Project, from all perspectives of production of oil, refining, transportation, consumption, etc . EPAs Mandatory Reporting of GHG Rule requires only that "suppliers" of fuels, not the oil and gas producers, have to report the emissions associated with the combustion of the product. Suppliers are defined as a refinery, importers and exporters (Table A-5 in the EPA Rule)
LACRPOSD-24	The SCAQMD thresholds have been adopted by the SCAQMD board and are being used by the City of Whittier as GHG thresholds for this Project. The SCAQMD also has a GHG voluntary reporting and credit system under regulation XXVII. Mitigation measure AQ-4 requires reporting GHG emissions and accounting of any offsets or control methods to reduce GHG emissions below the thresholds. Since the impacts are known, the study does not constitute deferral of mitigation. Further, the GHG emission reduction program included in mitigation measure AQ-4 does not constitute deferral of mitigation. This is so, because the measures that may be imposed as part of any GHG emission reduction program are detailed in the EIR. However, in an effort to be most conservative, the level of impact is classified as significant and unavoidable.
LACRPOSD-25	Table 4.1-9 and Appendix B quantify fugitive dust emissions utilizing the fugitive dust protocols defined in the URBEMIS software and the EPA AP-42. For pipeline construction, the primary fugitive dust source is dirt handling and this source and impact is detailed in the EIR. This is the appropriate method for estimating fugitive dust and does not underestimate this impact under accepted standards.
LACRPOSD-26	Inconsistencies in the text have been corrected and additional analysis related to regional and localized impacts has been included, in order to strengthen the overall integrity of the entire analysis. See Section 4.1.4.1.
LACRPOSD-27	Section 4.1, Air Quality, provides modeling, spreadsheets and summary tables to indicate the level of emissions and the corresponding level of significance, both before and after mitigation. In terms of PM from fugitive dust, the pre-mitigation analysis

	assumes no watering as the Applicant did not provide details on the frequency of watering. Watering was then added as a mitigation measure with specificity as to the amount of watering required. Levels of significance are clearly laid out for each impact as well as at the bottom of each emission summary table.
LACRPOSD-28	Ceasing operations under windy conditions is incorporated according to the SCAQMD comments and SCAQMD Rule 403 defined wind events. This is included in mitigation measure AQ-1a in the Draft EIR related to storage pile management.
LACRPOSD-29	The use of cleaner tier 4 engines is included in mitigation measure AQ-1d along with offsets or electrification, depending on availability and Applicant preference. CARB level 3 catalysts are required on all diesel engines, which reduce the PM emissions to similar levels as those of a tier 4 engine.
LACRPOSD-30	Additional analysis is included in the Final EIR to demonstrate that localized impacts would be less than the significance thresholds. Additional mitigation includes limits on flare operations, cleaner flares according to BACT requirements, offsets, tier 4 diesel engines, or electrification.
LACRPOSD-31	Modeling indicates that PM emissions impacts at receptors would be less than the significance criteria. This modeling is an appropriate method for determining significance as recommended by the SCAQMD. Additional mitigation has been added, including cleaner flares and limits on flaring hours. Please see mitigation measure AQ-2b for more information.
LACRPOSD-32	Events at Sycamore Canyon and Honolulu Terrace have been included in the development of mitigation measures that could reduce the frequency of odor events. Modeling has also been included which demonstrates that fugitive emissions would not produce regular, routine odor issues at residences or public areas. Odor events have been documented and listed in the Draft EIR from Sycamore Canyon and Honolulu Terrace. Please see section 4.1.4.3 of the EIR for these revisions.
LACRPOSD-33	Section 4.1, Air Quality, uses the South Coast Air Quality Management District threshold of 10,000 metric tonnes carbon dioxide equivalent because the proposed Project is within that air basin. The lead agency looks to the South Coast Air Quality Management District for guidance on air quality issues.
LACRPOSD-34	The drilling and oil and gas processing would be considered industrial development and the GHG emissions estimate and thresholds include mobile sources. Please see the South Coast Air Quality Management District web site for more information on the development of their thresholds.
LACRPOSD-35	Section 4.1.4.4 has been updated to include information on the Air Quality Management Plan in the Final EIR. The proposed Project would be required to comply with all South Coast Air Quality Management District regulations, including the GHG thresholds, and is not expected to cause population growth and would therefore comply with the goals of the Air Quality Management Plan.
LACRPOSD-36	Section 4.1.4.4 in the Final EIR has been updated to include additional information on mitigation measures that could be implemented to reduce GHG emissions, including obtaining offsets from the California Climate Reserve. However, even though the Applicant most likely could reduce GHG emissions or use other offsite measures to reduce GHG emissions to less than the threshold values, there is uncertainty about the availability of offsets for projects and the impacts would remain significant and unavoidable of the EIR analysis. Even though additional mitigation measures would not change the analysis, these can be added as conditions of approval in order to attempt to help reduce GHG emissions.
LACRPOSD-37	The reference to the Matrix Project in La Habra in the cumulative analysis states that it is “too far” away to produce localized impacts. However, regional impacts would be realized by any other project in the air basin and would include the La Habra project. Cumulative projects were examined for the City of Whittier and the communities surrounding the City of Whittier (see section 3). The health risk analysis included the La Habra site in the cumulative analysis and determined that it would not produce cumulative localized impacts.

LACRPOSD-38	Section 4.2, Biological Resources, did not rely on only four days of field work to determine the current conditions on the Preserve or Project footprint as indicated in this comment. Section 4.2 lists the numerous reports and surveys conducted by LSA Associates for the sole purpose of this EIR investigation. As stated on page 4.2-1 of the Draft EIR: "This section, describing the biological resources potentially affected by Project implementation, incorporates information from the following biological technical reports prepared in conjunction with this proposed Project: • LSA Associates, Inc. 2008. Least Bell's Vireo and Coastal California Gnatcatcher Survey Results, Puente Hills Landfill Native Habitat Preservation Authority Lands, City of Whittier, Los Angeles County, California (LSA Project No. PUE0801). Letter report dated August 27, 2008, to Sandra Marquez, U.S. Fish and Wildlife Service. Report included in Appendix C. • LSA Associates, Inc. 2009a. Focused Survey Results, Special status Plant Species, City of Whittier Oil Exploration (LSA Project No. PUE0901). Letter report dated August 4, 2009, to Andrea Gullo, Puente Hills Landfill Native Habitat Preservation Authority. Report included in Appendix C. • LSA Associates, Inc. 2009b. Least Bell's Vireo and Coastal California Gnatcatcher Survey Results, Puente Hills Landfill Native Habitat Preservation Authority Managed Lands, City of Whittier, Los Angeles County, California (LSA Project No. PUE0901). Letter report dated August 4, 2009, to Sandra Marquez, U.S. Fish and Wildlife Service, and Lyann Comrack, California Department of Fish and Game. Report included in Appendix C. • LSA Associates, Inc. 2009c. Summary of Focused Plant, Incidental and Protocol Survey Results (2008 and 2009), Puente Hills Landfill Native Habitat Preservation Authority Managed Lands, City of Whittier Oil Exploration (LSA Project No. PUE0901). Letter report dated August 4, 2009, to Andrea Gullo, Puente Hills Landfill Native Habitat Preservation Authority. Report included in Appendix C. • LSA Associates, Inc. 2010. Focused Survey Results for Sensitive Plant Species, City of Whittier Oil Exploration (LSA Project No. PUE0901). Letter report dated July 19, 2010, to Andrea Gullo, Puente Hills Landfill Native Habitat Preservation Authority. Report included in Appendix C. • Glenn Lukos Associates. 2010. Results of Protocol Coastal California Gnatcatcher and Least Bell's Vireo Surveys for an Approximately 270-Acre Property Owned by the City of Whittier and Managed by the Puente Hills Landfill Native Habitat Preservation Authority, City of Whittier, Los Angeles County, California. Report dated July 26, 2010, to Sandra Marquez, U.S Fish and Wildlife Service, and Lyann Comrack, California Department of Fish and Game. Report included in Appendix C."
LACRPOSD-39	The general bat surveys conducted for the purposes of the RMP provided suitable information on most of the widespread species with large home ranges potentially present in the Project area to adequately determine the level of impact. Population dynamics for species such as most of the bat species expected or known to be present in the area fluctuate throughout the year and between different years. The major impact to these extremely mobile species would be to permanent features used for roost sites which are adequately protected with the implementation of mitigation measure BIO-4.

	Monarchs have not been observed roosting on the site, are not included in the HA RMP, and are unlikely to support wintering roosts because the site is presumably too far from the coast to provide suitable roosting habitat. A species of milkweed, *Asclepius californica*, has been recorded on the Project Site, but it is rather sparse there and could not support a "winter concentration" of monarchs. Figure 4.2-2 already shows the North Access Road project footprint (in red). The Preserve boundaries are shown in Figure 4.2-7, and residential areas are shown in Figure 4.2-3 and 4.2-7.
LACRPOSD-40	The supplemental surveys conducted for sensitive species were not conducted to fill in data gaps as indicated in this comment but to maintain an up-to-date status of the California gnatcatcher and other sensitive species' presence on the Project Site. The Draft EIR biologists were provided with a sufficient level of data collected over several years, as prescribed by the USFWS protocol, to analyze and determine level of impact to this species and its habitat. The second issue in this comment states that the Draft EIR is required to consider an alternative that is capable of avoiding impacts to the coastal California gnatcatcher. The Landfill Alternative that is part of the Draft EIR analysis, places all of the impacts in previously disturbed areas, therefore, reducing the potential impact to this species to negligible levels. This alternative is one that is outside the Preserve, as suggested in the comment.
LACRPOSD-41	The reference in text has been changed to Figure 4.2-7 which does show the relevant habitat areas. The commenters state that the implementation of the proposed Project would conflict with the Habitat Authority's RMP. As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit. The discussion within Section 4.11 states partially as follows: "The Project Site is designated as open space of "high sensitivity" under the City of Whittier General Plan. Although many of the General Plan's open space policies identify the need to preserve and carefully manage such areas, the Plan also calls for a "balance between oil drilling activities and the protection of plant and animal communities in the hillsides." Oil and gas exploration and production are also allowed with a conditional use permit under Section 18.52.030." Also within Section 4.11, the Draft EIR preparers discuss potential incompatibility issues with the Preserve's Resources Management Plan. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Approval of the Project would provide for funding to restore the site. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding for continued restoration and preservation of the site. Without this funding, it will be difficult for the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that allows for oil and gas production activities to occur within the open space zone district. To the extent there is

	any conflict between the RMP, the zoning code and the General Plan, the General Plan governs and controls. In addition, existing oil and gas production activities are ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations and are not described as part of the RMP. Finally, the City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City's owned land that is part of the Preserve.
LACRPOSD-42	Section 4.2, Biological Resources, contains analysis of the biological impacts that would occur as a result of the proposed Project and includes mitigation measures that reduce the level of impacts to insignificant. Section 6.0, Alternatives, includes an alternative that would be located outside of the Preserve and within the Savage canyon Landfill as suggested by the comment.
LACRPOSD-43	The Landfill Alternative that is part of the Draft EIR analysis, places all of the impacts in previously disturbed areas, outside of Core Habitat, High Sensitive Habitat, and the Preserve boundary, therefore, reducing the potential impact to this species to negligible levels. Therefore, an alternative is analyzed in the Draft EIR which would have the oil field located outside the Preserve. In addition, mitigation measures and other alternatives have been fully considered in the Draft EIR, in compliance with State CEQA Guidelines. Mitigation measures are included in section 4.2, Biological Resources, which address loss of habitat.
LACRPOSD-44	The Project would be disruptive on the Preserve's Core Habitat. The Draft EIR clearly states (impact BIO.4) that habitat that provides important functions such as wildlife movement corridor and wildlife nursery would be affected by the Project. The impacts to the Preserve's Core Habitat Management Zone would be reduced to less than significant with the implementation of proposed mitigation (mitigation measures BIO-1, BIO-2, and BIO-4), which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program.
LACRPOSD-45	Commenter states that the proposed mitigation falls short of offsetting impacts to the wildlife movement corridor due to impacts on the Service Tunnel. However, the Draft EIR includes mitigation measures, several of which were proposed by the Habitat Authority, including closing the Service Tunnel during drilling operations (BIO-4n), installing signs near the Tunnel (BIO-4j), installing appropriate native screening vegetation around the western terminus of the Service Tunnel (BIOI-4h), directing lighting away from the Service Tunnel (BIO-4i), and adding mitigation measure CUMULATIVE BIO-3 which requires the applicant to fund a multi-year research study on wildlife movement issues on the Preserve. These measures, taken as part of the Project currently being proposed (which has relocated one of the original pad sites and oil facilities that were originally proposed to be located immediately adjacent to the Tunnel), would substantially reduce ongoing impacts to wildlife movement in the local area. In addition, Project implementation would also contribute funding for the Habitat Authority's management and restoration activities within the Preserve, enabling the implementation of local land-protection policies that would otherwise be expected to be unfunded or underfunded, which would also reduce impacts to wildlife movement. Impacts to biological resources are determined to be less than significant with mitigation in the EIR.
LACRPOSD-46	The Draft EIR biologists did consider the impacts to wildlife movement (as discussed in response to comment LACRPOSD-44 and 45) and came to the conclusion that wildlife would be affected but not significantly. With that reasoning, the functions of the Core habitat within the Preserve would also be affected (as is stated in the Draft EIR analysis) but not significantly with the implementation of the proposed mitigation measures. No significant and unavoidable impacts and no net loss of habitat function and value have been identified and thus were not required to be discussed.
LACRPOSD-47	The Draft EIR identifies mitigation measures that the Draft EIR preparer and Lead

	Agency consider adequate, under CEQA, to reduce the project's impacts and potential impacts to the California gnatcatcher to a level less than significant. In addition, mitigation measure BIO 1-d specifies that the Project proponent shall consult with the USFWS to ensure compliance with the federal Endangered Species Act. During the required consultation, the USFWS is free to determine what would be required to achieve compliance with federal law, and the Project proponent would be required to follow this guidance in order to comply with both federal law and CEQA (since mitigation measure BIO 1-d specifies that the Project proponent shall obtain an Incidental Take Statement, if the USFWS determines that this is necessary).
LACRPOSD-48	Mitigation Measure BIO1.d requires agency consultation, specifically with the USFWS, prior to issuance of City permits allowing the Project to proceed. If, during that consultation process, USFWS determines that a Biological Assessment or other review is required, the Applicant will be required to comply with federal law, as applicable to the Proposed Project.
LACRPOSD-49	Please see the response to comment LACRPOSD-40.
LACRPOSD-50	Contrary to this comment, the rationale for the 3:1 habitat replacement ratio for coastal sage scrub is specifically explained in the Draft EIR, page 4.2-49: "Replacement ratios for grading of sensitive coastal sage scrub typically requires greater than 1:1 replacement. The proposed mitigation included in this analysis requires a 3:1 replacement for coastal scrub because: (1) the CDFG requested a replacement ratio of 3:1 for this Project during the Comment Phase of the previous Public Draft EIR; (2) the habitat loss would be located within a habitat preserve, with all this implies about existing habitat values and the sensitivity of this location in terms of being well-buffered against human intrusions and other constraints from surrounding development; (3) there would be impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" that can't be completely eliminated through mitigation; (4) there would be temporal losses that would occur before the restoration efforts provide functioning habitat; and (5) ecological systems that are already under stress from surrounding intensive development exhibit a compromised capacity to rebound from disruptive processes, such as fire and human intrusion." In addition, impact BIO.1 states that the habitat replacement ratio still requires approval by the City and resource agencies: "To mitigate the Project's permanent loss of 4.16 acres of coastal sage scrub, the Applicant shall provide minimum 3:1 areal replacement. To mitigate the loss of habitat value due to the Project's temporary noise impacts affecting 5.49 acres of coastal sage scrub, the Applicant shall provide minimum 1:1 areal replacement. In total, the Applicant shall restore 17.97 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero watersheds to coastal sage scrub communities, <u>or as otherwise agreed to by the appropriate resource agencies</u> and the City."
LACRPOSD-51	Table 4.2-7 includes a Mitigation Monitoring Plan that requires agency consultation, including the CDFG, to occur prior to issuance of City permits allowing the Project to proceed. The CDFG did not suggest the need for the applicant to begin the formal consultation with the CDFG for their incidental take permit concurrently with the CEQA review process and formal consultation is not necessary prior to CEQA review given required mitigation and discussion of USFWS standards.
LACRPOSD-52	Contrary to this comment, the rationale for the 3:1 habitat replacement ratio for riparian habitat is specifically explained in the Draft EIR, page 4.2-51: "Replacement ratios for grading sensitive riparian habitats typically require

	greater than 1:1 replacement depending on the quality and quantity of disturbance. The proposed mitigation included in this analysis requires 3:1 replacement for impacts to riparian habitat because: (1) the habitat loss would be within a habitat preserve, with existing habitat values and the sensitivity of this location in terms of being well-buffered against human intrusions and other constraints from surrounding development; (2) impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" cannot be completely eliminated through mitigation; (3) temporal losses would occur before the restoration efforts provide functioning habitat; and (4) ecological systems already under stress from surrounding intensive development exhibit a compromised capacity to rebound from disruptive processes, such as fire and human intrusion. " In addition, impact BIO.2a states that the habitat replacement ratio still requires approval by the City and resource agencies which would occur during the permitting phase.
LACRPOSD-53	The proposed Project would further fragment open space habitat. The discussion of cumulative impacts in Section 4.2, Biological Resources addresses these impacts and includes mitigation that reduce the impact to insignificance.
LACRPOSD-54	Table 2-4 in Section 2.0, Project Description, lists sensitive receptor locations. The Ocean View School location includes the Mar Vista Preschool and Co-op Preschool identified by the commenter. The School District indicates that this school will be replaced by a school for developmentally disabled children. The analysis assumes that 500 students would attend the Ocean View School and impacts to these sensitive receptors is fully analyzed.
LACRPOSD-55	Figure 2-6 in Section 2.0, Project Description, shows sensitive receptors and Table 2-4 lists the distances to the receptors from various Project components, including the three schools mentioned in the comment.
LACRPOSD-56	The Project Site is more than 22 miles from Los Angeles International Airport and the CEQA Guidelines, Appendix G, Section VII, question (e) addresses only projects within two miles of a public airport. Neither Los Angeles International Airport, nor any other airport (Fullerton or El Monte being the closest at 6-8 miles) is within two miles of the Project site. As such, no further analysis is required. Further, CEQA Guidelines, Appendix G, Section VII, question (f) is specific to private airstrips. As no private airstrips are within vicinity of the Project site, no further analysis is required.
LACRPOSD-57	Section 4.12, Fire Protection and Emergency Response, addresses emergency response and determined that emergency response capabilities in the area are adequate and response times are low enough that impacts to area emergency response plans would be less than significant. Emergency response plans address equipment, staffing and response times to be able to respond to incidents within the area. The proposed Project would be within acceptable timing, would not require additional strains on equipment or staffing (as per discussions with Battalion Chiefs) and would therefore produce less than significant impacts on emergency response.
LACRPOSD-58	Section 4.12, Fire Protection and Emergency Response, addresses wildland fires in impact FP.2. Mitigation measure FP-2 requires brush clearance and equipment and training for wildland fires.
LACRPOSD-59	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, states that drilling operations would be more than 0.25 miles from the school and recommended placing the drilling and processing operations away from the school, which creates less than significant impacts. Thus, no mitigation is required.
LACRPOSD-60	The Project Site is more than 22 miles from Los Angeles International Airport. See response LACRPOSD-56 for further information. No mitigation is required.
LACRPOSD-61	Section 4.12, Fire Protection and Emergency Response, addresses emergency response plans in impact FP.1. Mitigation measure FP-1d requires preparation of an emergency response plan in accordance with codes and standards and requires the implementation

	of fire detection, fire foam, and fire water capabilities.
LACRPOSD-62	Section 4.12, Fire Protection and Emergency Response, addresses wildland fires in impact FP.2. Mitigation measure FP-2 requires brush clearance and equipment and training for wildland fires. This section indicates that the proposed Project would be located within a very high fire hazard area.
LACRPOSD-63	The Ocean View School is identified in the Draft EIR and included in the analysis for risk as well as other issue areas (such as air quality and noise). Since there are currently plans for multiple schools on the site and the site is in transition according to the School District, the school is collectively identified the Ocean View School in the Draft EIR. Further, please see response LACRPOSD-59 above.
LACRPOSD-64	The text in Section 4.3.3 has been changed to say significant safety impact rather than significant safety effect.
LACRPOSD-65	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, clearly discusses the consequence analysis procedures and shows the results in Figure 4.3-4. Schools are clearly identified and only the school along Ocean View Ave is near the Project Site. The school that is almost 1 mile from the Project Site would not be impacted.
LACRPOSD-66	The frequency that would not produce unacceptable risk levels is a function of the type of scenario that occurs and the number of persons impacted. If more people are impacted, the "acceptable" frequency would be lower. This is shown in the FN curves with the sloped lines in Figure 4.3-5.
LACRPOSD-67	The State has delineated portions of the proposed Project Site as possibly prone to liquefaction and seismic events. Section 4.4.1.4, Geologic Hazards, states that portions of the site are in a delineated liquefaction zone. In addition, the Final EIR concludes that the potential for liquefaction and other secondary effects of ground shaking exists (impact GR.2). Therefore, mitigation measure GR-3a requires a liquefaction assessment in areas of proposed buildings, structures, components, or pipelines. However, if areas below or proximate to any proposed improvements are found to be prone to liquefaction, several mitigation measures within the custom and practice of the industry are within the scope of conventional construction and would be available to mitigate the hazard. In addition, mitigation measures GR-3b through GR-3d are available. The conclusions regarding liquefaction are not deferred mitigation. The Final EIR includes substantial evidence and relevant data for the site conditions (14 CCR §15384). A fair analysis based on this information evaluated site conditions and possible hazards and impacts. This analysis concluded that there may be a potential for liquefaction. Further review and analysis determined that in the event of such a hazard, several available remedial measures could mitigate the hazard. Whether the liquefaction assessment is performed now or after detailed plans are prepared, the finding will remain that the hazard is significant and can be mitigated. Mitigation measures GR-3b through GR-3d provide a range of options to achieve the stated performance standards. In summary, the mitigation measures are thoroughly defined, however, the extent of the necessary mitigation will depend on the liquefaction assessment. Therefore, a finding that requires site-specific studies after the Project plans are fully developed is reasonable. These future studies will tailor the available mitigation measures to the actual environmental conditions.
LACRPOSD-68	See response to comment LACRPOSD-67.
LACRPOSD-69	Text in Section 4.4.1.1 has been added to the Final EIR in response to the comment.
LACRPOSD-70	The relevance of the regional geomorphic provinces to the Project is only with respect to the regional fault systems, as already discussed. Therefore, no additional information is warranted in order to provide a basis on which to evaluate the geologic

	impacts.
LACRPOSD-71	Site specific data provided by Heathcote (2009) provided some limited subsurface geotechnical data for evaluating soil conditions at the site. The EIR requires that additional studies be performed to assess site specific data once final plans have been developed. These studies will require deeper subsurface exploration in accordance with Los Angeles County requirements. However, the limited study satisfies the general requirements for CEQA.
LACRPOSD-72	The Heathcote Geotechnical report includes the requested available data and is included as an appendix to the Final EIR. The EIR preparers agree that additional data will be necessary for subsequent development. Section 4.4, Geological Resources, includes necessary mitigation measures for the possible adverse conditions.
LACRPOSD-73	The Draft EIR includes localized site specific figures. This comment appears to be left over from previous comments submitted for the previous EIR.
LACRPOSD-74	The EIR preparers agree that the Puente Hills Blind Thrust is a significant issue in the Los Angeles Basin. However, it is not mapped with the Alquist-Priolo zoning because it does not rupture the surface. Section 4.4.1.4, Geological Hazards, references the fault. In addition, the exact location of the fault is conjecture and would not necessarily be mapped directly under the Project Site in a normal fault characterization. For this analysis, the characterization of the Whittier Fault and the updated ground accelerations in mitigation measure GR-1 provide a suitable framework for any ground motions and activity on the Puente Hills Blind Thrust.
LACRPOSD-75	This comment appears to also be a relic from the previous draft, as the last paragraph of the Regional Seismicity section indicates "Portions of the active Whittier Fault, including the portion of the fault closest to the Project Area, have been included within an Alquist-Priolo Fault Zone. Construction within such a zone requires that special geologic studies be conducted to locate and assess any active fault traces in and around known active fault areas prior to development of structures for human occupancy (see Regulatory Setting below, for additional information). No Alquist-Priolo Fault Zones are present within the Project Area."
LACRPOSD-76	This comment appears to also be a relic from the previous draft, as the distances from the site to the faults was included in the table. However, the table has been moved to the end of the section that references the table, in response to the comment.
LACRPOSD-77	The subsection Earthquakes and Petroleum Facilities has been added to the EIR to provide the reader with baseline information as to how petroleum facilities, such as the proposed Project, have fared during large earthquakes. Such information provides more of a basis on which seismic impacts can be evaluated. The source of the information was provided at the end of the paragraph (CDMG 1988). This text has been moved further down Section 4.4.1.4, Geologic Hazards to provide a better flow of the seismicity discussion.
LACRPOSD-78	The Probabilistic Ground Acceleration Analysis provides a more succinct analysis of potential ground shaking at the Project site, in comparison to what was written for the previous draft. As indicated in the text, anticipated peak ground accelerations are standard measurements used by seismic and structural engineers in designing new facilities. However, portions of the ground shaking discussion from the previous draft have been re-inserted into the text in response to the comment.
LACRPOSD-79	The discussion of ground shaking in Section 4.4.1.4, Geologic Hazards, clarifies that the requirements for the Project shall include the California Building Code in any design of building and structures.
LACRPOSD-80	The state has delineated portions of the proposed Project Site as possibly prone to liquefaction. Section 4.4.1.4, Geologic Hazards, states that portions of the site are in a delineated liquefaction zone. The Final EIR concludes that the potential for liquefaction and other secondary effects of ground shaking exists (impact GR.1). Therefore, mitigation measure GR-1c, 1d and 1e require a geotechnical assessment in areas of proposed buildings, structures, components, or pipelines. However, if areas below or proximate to any proposed improvements are found to be

	prone to liquefaction, several mitigation measures within the custom and practice of the industry are within the scope of conventional construction and would be available to mitigate the hazard. In addition, mitigation measures GR-1c through GR-1e are available.
LACRPOSD-81	The Heathcote Geotechnical report includes a site map that delineates the geology of the site and the location of the borings. This report is included in Appendix L with the Final EIR.
LACRPOSD-82	Soil settlement is addressed in the Heathcote Geotechnical report, which is included in Appendix L.
LACRPOSD-83	Rock falls are also common in sedimentary rocks. Surficial slope failures are addressed in the slope stability discussion in Section 4.4.1.5, Geotechnical Hazards. Text has been added to the Earthquake-Induced Landslides section to clarify that additional information is present in the following Slope Stability section.
LACRPOSD-84	Section 4.4.1.5, Geotechnical Hazards, provides discussions on expansive soils, hydroconsolidation, subsidence, existing fills, groundwater, compressible soils, slope stability, landslides and slope deformation. Where onsite data is available, the information is included in the discussion based on the Geotechnical Study included in Appendix L. The Final EIR assesses the potential impact, and where appropriate, outlines the details of additional testing or analysis.
LACRPOSD-85	See response to comment LACRPOSD-68. Artificial fill is reference to material that may have been brought to the site to build well pads or other areas as part of the Chevron oil and gas production that occurred at the site for over 100 years.
LACRPOSD-86	References by the commenter to the truck loading area appear to be in error because it references an earlier version of the Project. Heathcote Geotechnical has provided a geotechnical investigation as part of Appendix L. The Final EIR requires a site-specific study.
LACRPOSD-87	A site-specific geotechnical investigation has been completed by Heathcote Geotechnical (2011). This report is included as Appendix L with the Final EIR.
LACRPOSD-88	As indicated at the end of the Significance Criteria section, Section 4.8, Hydrology and Water Resources, discusses impacts related to soil erosion.
LACRPOSD-89	With the exception of wastewater disposal, each of the significance threshold questions from CEQA Guidelines Appendix G has been used for the analysis in this Geological Resources Section of the EIR. A note has been added to the wastewater disposal significance criteria, indicating that this issue is addressed in Section 4.10, Wastewater.
LACRPOSD-90	This Draft EIR is not a supplemental EIR; rather, it is an entirely new Draft EIR based on a substantially revised project description. Therefore, this portion of the DEIR has been substantially (and appropriately under CEQA) changed. Site-specific analyses, including slope stability analyses, have been completed for the site, as discussed in response to comment LACRPOSD-68. It is customary and appropriate to monitor construction for indications of potential slope instability not identified in the Heathcote Geotechnical (2011) report. Standard corrective measures can be implemented in the event that areas of slope instability are identified during construction. The Heathcote report was completed using standard, UBC-based methodology; however, it is not always possible to identify all geologic features during geotechnical investigations. An element of uncertainty is always present in defining the geology of a given site. Thus the need for construction monitoring by a California Certified Engineering Geologist.
LACRPOSD-91	The Final EIR specifies that the County of Los Angeles Department of Public Works Geotechnical Guidelines be used in all future studies.
LACRPOSD-92	The Draft EIR analyzes noise impacts associated with the worst periods of Project activities, including grading the pad area closest to residences and drilling operations concurrent with processing plant operations. The peak construction noise would occur during pad grading. Noise during access road construction would occur before pad grading, would be located farther from residences, and would therefore generate lower

	noise impacts than the scenario examined in the Draft EIR. However, in an effort to be conservative, the Draft EIR disclosed a worst case scenario with regard to level of impacts.
LACRPOSD-93	Recreational users were addressed in the analysis as one of the sensitive receptors identified along the Deer Loop Trail, located close to the Project Site. Impacts on biology are addressed by examining the area that could experience noise levels greater than 60 dBA and requiring the Applicant to restore other areas at a ratio of 1:1 (see Section 4.2, Biological Resources).
LACRPOSD-94	Permit compliance will be ensured through inspections by the respective agencies.
LACRPOSD-95	Each of the CEQA threshold questions were used in the Draft EIR but modified to provide the significance criteria (i.e.: dBA levels) contained in the City's Municipal Code and the County of Los Angeles' Code. These criteria determine what is defined as "substantial" in the CEQA guidelines. Since the Project Site is not located near an airport, issues related to airports were not discussed.
LACRPOSD-96	Noise standards within the County of Los Angeles are considered in mitigation measure N-1a, which requires "a noise study and monitoring and measures, including high grade mufflers, engine tuning, and management of backup alarms" for work conducted within the County of Los Angeles. Noise levels from construction activities are analyzed in the EIR under impact N.1.
LACRPOSD-97	Noise levels along the Preserve roadways do not impact residences or "persons" and were therefore not included in Section 4.5, Noise and Vibration. However Section 4.2, Biological Resources, addresses impacts to biological resources where noise levels greater than 60 dBA are mitigated.
LACRPOSD-98	The Draft EIR analyzes noise impacts associated with the worst periods of Project activities, including grading the pad area closest to residences and drilling operations concurrent with processing plant operations. The peak construction noise would occur during pad grading. Noise during access road construction would occur before pad grading, would be located farther from residences, and would therefore generate lower noise impacts than the scenario examined in the Draft EIR.
LACRPOSD-99	Impacts associated with construction of the pipeline along Colima Road would be similar to the noise impacts at the Deer Loop Trail receptor associated with pad grading. The text has been updated to clarify this. It is unnecessary to conduct noise modeling on every aspect of the Project if some activities are similar to others.
LACRPOSD-100	The impacts referenced by the commenter have been disclosed and mitigated to the extent feasible. In fact, the increase in noise levels at the Deer Loop Trail receptor is defined as significant without mitigation. Proposed mitigation measures would reduce these impacts to be less than significant.
LACRPOSD-101	Impact N.1 discusses the noise levels produced by construction at the nearest sensitive receptor and quantifies these levels in the Draft EIR. Mitigation measures are included to reduce the level of impact to less than significant.
LACRPOSD-102	The Municipal Code identifies exemptions for construction –activities during specified hours and the County has different standards for construction activities. Please see Section 4.5, Noise and Vibration, for further discussion.
LACRPOSD-103	It is unclear what access roads the commenter is referring to in the comment. The revised Project discussed under this EIR would have access through existing roadways and would have improvements through the Savage Canyon Landfill that is farther from residences than the drilling location, and drilling is considered to be an operational impact. No vibrational impacts to residents are expected to occur from the proposed Project. Construction impacts are exempted from noise standards.
LACRPOSD-104	The statement "would mitigate this potentially significant impact" indicates that there would not be a significant impact with the mitigation. Thus, the impact has been mitigated to less than significant.
LACRPOSD-105	"Substantial" noise impacts are defined in the Draft EIR as increases of 3 to 5 dBA over baseline. These are defined as substantial impacts to "persons" as specified in CEQA Guidelines, Appendix G, Section XII. Noise impacts to biology are discussed

	in Section 4.2, Biological Resources.
LACRPOSD-106	The wording clearly states that no other mitigation measures would produce noise impacts and, therefore, no additional measures are required.
LACRPOSD-107	The Draft EIR clearly states that "none of the cumulative projects would contribute noise to the same areas that the proposed Project would." Therefore, there are no cumulative impacts.
LACRPOSD-108	The Draft EIR presents extensive information on aesthetic impacts from several different viewing locations, providing visual simulations and descriptions. The Draft EIR concludes that the impacts would be significant and unavoidable, primarily to recreational users.
LACRPOSD-109	The text in the Final EIR has been updated to indicate that there are five, not six, viewing locations. The figure depicts the far-field viewing location along Whittier Boulevard off of the map since the loss of detail with a larger scale map was not desired. Whether or not the fair-field viewing location is indicated on the map does not impact the environmental analysis contained in the EIR and the far-field viewing location was analyzed in the EIR.
LACRPOSD-110	Figure 4.6-1 shows the viewing locations along with the proposed Project pad area, which contains the Project components. Appendix A shows the detailed Project component locations.
LACRPOSD-111	The proposed Project is within the City of Whittier and is thereby subject to the Whittier General Plan. Please see response LACRPOSD-42 for information on the Project's consistency with the City of Whittier General Plan. With regard to the proposed Project, only portions of the oil and gas pipelines that fall within the County outside of any other municipal jurisdiction are subject to the County of Los Angeles General Plan. Consistency discussion with the County's General Plan for those portions of the pipeline within the jurisdiction are included as part of Section 4.11, Land Use.
LACRPOSD-112	Regarding Proposition A, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District. The land that would be used for the Project would have to be replaced at different locations within or outside the Preserve. The areas used for the facilities are not expected to have additional aesthetic impacts other than those identified as part of the visibility of the drilling rig.
LACRPOSD-113	As stated in Section 4.11.5.3, the proposed Project would be partially consistent with RMP Goal VISUAL-1. Further, although Impact AE.1 (degrade public viewsheds) is Significant and Unavoidable, Mitigation Measure AE-1a requires a Landscaping Plan that shall be reviewed and approved by the City and the Habitat Authority. Additionally, within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site. Without this funding, the Preserve will fail to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans."

	Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
LACRPOSD-114	Construction-related equipment and short-term features are not considered to produce visual impacts as they are temporary and would not be a continual visual presence in the area.
LACRPOSD-115	Daytime lighting and glare are not considered to be an issue for the Project, as might be the case for solar panels that could produce daytime glare. Nighttime lighting that affects views was addressed by establishing spillover thresholds and luminosity criteria.
LACRPOSD-116	The red light on top of the drilling rig would not produce "substantial light," as defined by luminosity thresholds, or glare. It would be visible but would not be significant.
LACRPOSD-117	The Habitat Authority has been listed as a party to the selection and management of landscaping as they have some authority in the Preserve.
LACRPOSD-118	The Draft EIR clearly states that no other cumulative projects would be constructed within the viewshed. Therefore, no cumulative impacts would occur.
LACRPOSD-119	Construction traffic impacts have been adequately addressed and mitigated through mitigation measure T-2. This measure addresses reductions in the number of lanes, and imposes other measures to ensure that construction impacts do not significantly impact traffic and circulation. Pipeline construction would include construction equipment and traffic levels, which are detailed in Section 2.0, Project Description, and Appendix A, Project Details.
LACRPOSD-120	The Traffic Impact Analysis focused on Project traffic generated by construction and site operations. Pipeline construction would generate traffic impacts that would be temporary, such as any in-street construction or maintenance project, and would be mitigated with appropriate traffic control plans required during the permitting process. Please see mitigation measure T-2.
LACRPOSD-121	Construction traffic impacts have been adequately addressed and mitigated through mitigation measure T-2. This measure addresses reductions in the number of lanes, and imposes other measures to ensure that construction impacts do not significantly impact traffic and circulation. Pipeline construction would include construction equipment and traffic levels, which are detailed in Section 2.0, Project Description, and Appendix A, Project Details.
LACRPOSD-122	Project trip generation is based on daily and peak-hour onsite activities. The Project Traffic Impact Analysis incorporates the anticipated level of personnel and truck activity estimated for each phase and evaluates the "worst-case" days by determining days of high activity for each phase based on input from the developer. Pipeline construction work within roadways would create the greatest offsite impedance to traffic. These activities should be short in duration and during off-peak times. Work within the public right-of-way requires submitting offsite traffic control plans to the City of Whittier or appropriate jurisdiction for approval as provided in mitigation measure T-2. The traffic control plans would include detour plans, cone patterns, and allowable work hours, which are typically outside of peak-hour traffic periods. Passenger Car Equivalent (PCE) is based on Highway Capacity Manual Chapter 21, Multilane Highways. The PCE is based on the type of terrain, including level terrain (PCE 1.5), which permits heavy vehicles to maintain approximately the same speed as passenger vehicles; rolling terrain (PCE 2.5), which causes heavy vehicles to reduce

	their speeds substantially below those of passenger vehicles; and mountainous terrain (PCE 4.5), which causes heavy vehicles to operate at crawl speeds for significant distances or at frequent intervals. The study incorporates PCE for all trucks, from small flat bed trucks to very heavy trucks. The area is a mix of both level and rolling terrain. Therefore, the study incorporated an average of the two PCE, which is equal to a PCE of 2.
LACRPOSD-123	Pipeline construction along roadway segments is necessary for this Project. The location of the existing and future pipelines will dictate the amount of necessary work within the roadways, which will vary for each location. Work within the public right-of-way requires submitting offsite traffic control plans to the City of Whittier or appropriate jurisdiction for approval as detailed in mitigation measure T-2. The traffic control plans will include detour plans, cone patterns, and allowable work hours, which are typically outside of peak-hour traffic periods. The intersections most likely to be significantly impacted by the proposed Project were analyzed. Project traffic is not expected to make turning movements at Whittier Boulevard and Norwalk Boulevard or at Whittier Boulevard and Painter Avenue. These intersections would accommodate only through Project traffic and should not be significantly impacted by Project traffic. Freeway monitoring location selection was based on proximity to the proposed Project and no significant impacts were identified at those locations. Additional monitoring even farther from the Project Site, where Project-related traffic would be more scarce, is unnecessary.
LACRPOSD-124	All traffic figures include a north orientation arrow, but some elements are not to scale, so a scale bar has not been included. The figures are meant to show the relative location of intersections and roadways, not to assess linear dimensions.
LACRPOSD-125	The lanes of traffic along each roadway are shown in the Traffic Analysis Report, Appendix E, which contains details on each intersection, turning lanes and roadways.
LACRPOSD-126	The traffic study was initially issued in May 2011 and was updated in June. Updates were included in the main body of the Draft EIR. Citations have been updated throughout Section 4.7, Transportation and Circulation.
LACRPOSD-127	Demand to capacity ratio is applicable to roadways segments and freeways segments. The terminology in the Final EIR has been updated to ensure that roadways and freeways utilize a D/C and intersections utilize a V/C. Table 4.7-5 is for freeways and roadways and has been updated accordingly.
LACRPOSD-128	The LOS of E at the Three Palms intersection (#9) for the p.m. period is a transcription error from Appendix E, which correctly states the LOS as C. The other intersection designations are due to rounding, which places an LOS of .709, for example, as a C although it is actually less than the 0.71 designated as the minimum LOS C in the table. Anything greater than 0.700 is a C.
LACRPOSD-129	The Project Description, Section 2, clearly describes the Project. Access roads are used, including Catalina Avenue, and Penn Street, and multiple locations of the Project include the pad area, the metering station and multiple access routes.
LACRPOSD-130	In one row in Table 4.7-12 percentages did not add up to 100% because of a transcription error from Appendix E; this was corrected in the Final EIR.
LACRPOSD-131	The text has been corrected in the Final EIR to say distribution.
LACRPOSD-132	Text indicating that parking would be all within the designated parking and staging areas has been added to Section 4.7.4.3 in the Final EIR.
LACRPOSD-133	Roadway weight limitations are primarily associated with State law provisions that allow local municipalities to regulate commercial vehicle access in residential areas. However, access to residential areas by vehicles in excess of the weight limitations is allowed if the destination or origin is within the residential area.
LACRPOSD-134	The text discussing the significant impacts has been clarified in the Final EIR.
LACRPOSD-135	The City would monitor several mitigation measures, including T-1c to ensure compliance through a mitigation monitoring program. There are various ways for the City to ensure compliance, including requiring vehicles to pass a gated entrance and

	have a security guard record the vehicle traffic or have traffic monitoring devices installed within entrance gates. City monitors could then check these records, and ensure that appropriate records are being kept through spot checks, to ensure that vehicle trips remain below the required levels. This would allow for enforcement of mitigation measures T-1b and T-1c in the Draft EIR. Traffic counters could also be used along Preserve roadways to count vehicle traffic. Whatever method the City chooses, it will ensure compliance with all mitigation measures identified in the EIR.
LACRPOSD-136	The text has been modified to indicate that the limit on Project traffic would reduce the impacts instead of modifying Mar Vista Street roadway bulbouts.
LACRPOSD-137	Construction traffic impacts have been adequately addressed and mitigated through mitigation measure T-2. This measure imposes a traffic control plan, which would be developed as part of the pipeline construction. The local jurisdiction would review the traffic control plans and, after construction plans are finalized, identify how many lanes can be closed, detour routes, and time and work-hour limits. Pipeline construction would include construction equipment and traffic levels, which are detailed in Section 2.0, Project Description, and Appendix A, Project Details.
LACRPOSD-138	Construction traffic impacts have been adequately addressed and mitigated through mitigation measure T-2. This measure imposes a traffic control plan, which would be developed as part of the pipeline construction. The local jurisdiction would review the traffic control plans and, after construction plans are finalized, identify how many lanes can be closed, detour routes, and time and work-hour limits. Pipeline construction would include construction equipment and traffic levels, which are detailed in Section 2.0, Project Description, and Appendix A, Project Details.
LACRPOSD-139	Construction traffic impacts have been adequately addressed and mitigated through mitigation measure T-2. This measure imposes a traffic control plan, which would be developed as part of the pipeline construction. The local jurisdiction would review the traffic control plans and, after construction plans are finalized, identify how many lanes can be closed, detour routes, and time and work-hour limits. Pipeline construction would include construction equipment and traffic levels, which are detailed in Section 2.0, Project Description, and Appendix A, Project Details.
LACRPOSD-140	Cumulative impacts of the construction elements of the proposed Project would not be significant as construction activities are temporary in nature. Once the pipeline is in the ground, the impacts would be limited to safety and risk impacts on residences or the public, which are addressed in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. None of the cumulative projects are located along the pipeline route or would introduce risk to the same receptors along the pipeline route, so there are no cumulative impacts.
LACRPOSD-141	As stated, the evaluation of the potential improvements indicates that the improvement may not currently be feasible within the existing right-of-way. This is proposed as a fair-share improvement potentially necessary if all of the cumulative projects are constructed. It is beyond the scope of this Project to implement the improvements where additional right-of-way would be needed. Presumably, right-of-way would be incrementally obtained along the properties that front the intersection if additional entitlements are obtained. Broad conceptual improvement plans for the cumulative impact mitigation have been provided on aerial graphics in the refined traffic study. As indicated in the report, additional right-of-way dictates that these improvements cannot be implemented at this time. In addition, impacts associated with cumulative projects along with the proposed Project could be mitigated to less than significant with mitigation measures in the EIR (T-1a through T-1f) which would limit traffic at certain intersections during peak hours.
LACRPOSD-142	Section 4.2, Biological Resources, discusses jurisdictional waterways.
LACRPOSD-143	The EIR requires that a subsequent hydrology report be prepared once plans have been

	prepared (MM WR-1b & WR-2b). Since the proposed development will consist of grading roads and pads, the hydrology report will be prepared to identify site specific conditions and drainage conditions and provide the design within the confines of the mitigation measures contained within the EIR. No unique conditions were identified that would require the necessity for a hydrology report at this time and the findings of the EIR will remain valid once the final design is performed, since the methodology involves conventional and widely accepted techniques for this type of engineering and design.
LACRPOSD-144	See response to comment LACRPOSD-143.
LACRPOSD-145	As indicated in Section 4.8.1.1, neither of the creeks adjacent to the Project Site or associated pipeline route are included as a 100-year flood zone on maps prepared by the Federal Emergency Management Agency (2011). However, impact WR.7 has been added in response to the comment.
LACRPOSD-146	CEQA only requires inclusion of significance criteria that are relevant to the project. As indicated in Section 15126.2 of the 2011 CEQA Handbook, "an EIR shall identify and focus on the significant environmental effects of the proposed project……the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is commenced." Failure of a levee or dam or inundation by a seiche, tsunami, or mudflow is not anticipated to be a significant impact in association with the Project as no levee or dam is in proximity to the Project, and no bodies of water that could cause a seiche, tsunami, or related mudflow are in proximity of the Project site.
LACRPOSD-147	The Operations and Maintenance Phase was also included as a phase in which these impacts would be relevant.
LACRPOSD-148	Mitigation Measure WR-2a provides the requirements for the use of check dams, sediment basins etc., during wet weather and Project construction. Detailed plans and SWPPP requirements will be provided prior to any construction to fulfill these mitigation measures.
LACRPOSD-149	This issue was discussed in depth in impact WR.1.
LACRPOSD-150	Mitigation measures SR1-a through SR2-b provide mitigation analogous to what the commenter suggests.
LACRPOSD-151	Comment on the thoroughness of the Cultural Resources Section is acknowledged.
LACRPOSD-152	The area studied for the conclusions provided in the Cultural Resources section included the 1,290 acre City of Whittier owned portion of the Preserve.
LACRPOSD-153	In addition to the information provided in Section 4.9.1.5 and with respect to the concerns raised by the two tribal representatives, note that the Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Mitigation measures designed to reduce potential impacts to discovered cultural resources are further discussed in Section 4.9.4.
LACRPOSD-154	Construction and drilling are two different activities, as described in the EIR. Drilling the remaining 57 wells in the third phase, Operations and Maintenance, would not be considered construction; that is, the development of the site infrastructure, such as the well cellars and processing equipment.
LACRPOSD-155	Please see response to comment LACRPOSD-156
LACRPOSD-156	Language has been updated to reflect that the mitigation covers all stages of the Project. However, the proposed Project would affect only a small area where previous oil pads existed. Mitigation Measure CR-1adequately provides for mitigation for any potential impact that may occur in this area and CULT-1 is not needed for this Project.
LACRPOSD-157	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural, paleontological and historical resources, including data recovery if required.
LACRPOSD-158	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural, paleontological and historical resources. Impacts related to the unanticipated discovery of prehistoric archaeological resources fall within the

	purview of mitigation measures identified in Section 4.9.4.
LACRPOSD-159	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural, paleontological and historical resources. Impacts to any discovered resources and related mitigation measures to reduce the impacts, if any, are sufficiently addressed in Section 4.9, Cultural Resources. Specifically, the discussion regarding human remains and mitigation measure CR-4 addresses consulting with the Native American Heritage Commission if human remains are discovered.
LACRPOSD-160	The Final EIR has been modified to reflect that the impacts analyzed under the proposed Project reflect the impacts of all Project phases. No cumulative impacts are expected since no other projects would occur in the general area of the Project Site.
LACRPOSD-161	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural, paleontological and historical resources. Cumulative impacts related to the unanticipated discovery of prehistoric archaeological resources fall within the purview of mitigation measures identified in Section 4.9.4.
LACRPOSD-162	Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Further, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District. Further analysis regarding Proposition A is beyond the scope of this EIR. Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project.
LACRPOSD-163	It does not appear that the Public Park Preservation Act of 1971 would apply here as it only applies to acquisitions of property by a City or other public agency that are used as a public park at the time of acquisition. The property that will occupy the project site is already owned by the City of Whittier and has been owned by the City for some time. Thus, as the City is not now acquiring the property, the Public Park Preservation Act of 1971 would not apply. Further, as this is a legal issue and not an environmental one, no further response under CEQA is required.
LACRPOSD-164	In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City would be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is working with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. Negotiations regarding refunding Proposition A between the City of Whittier and Los Angeles County are separate and distinct from the EIR process. The proposed lease includes a provision that the City will not issue a conditional use permit until a release from protected area status is obtained from the Proposition A District. Further analysis regarding Proposition A is beyond the scope of this EIR.
LACRPOSD-165	Pipeline projects are permitted in all zone districts in the City (including the Open

	Space Zone where the proposed Project is to be located) with the approval of a conditional use permit. Please refer to Section 18.52.030 A of the City's Zoning Ordinance and to page 4.11-13 of the EIR for further information. In this case, once the pipelines leave the Preserve, the pipelines would be built below existing roads. Many existing oil and gas pipelines, including gas company lines are typically built under roads and other transportation corridors. It is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project.
LACRPOSD-166	CEQA only requires inclusion of significance criteria that are relevant to the project. As indicated in Section 15126.2 of the 2011 CEQA Handbook, "an EIR shall identify and focus on the significant environmental effects of the proposed project…the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is commenced."As stated in Section 4.11.4, the impact analysis does not include a threshold from the CEQA guidelines regarding whether the Project would physically divide an established community because the proposed Project would not affect that threshold. The Project would not be physically situated in a community, but in a Preserve. Thus, no further analysis is required.
LACRPOSD-167	The California Environmental Quality Act (CEQA) Guidelines, section15125 (d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. It is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project.
LACRPOSD-168	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-169	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-170	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-171	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-172	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-173	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR

	preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-174	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-175	It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project. Language has been modified in the Final EIR in response to this comment.
LACRPOSD-176	Information obtained from Capitan Emrick was added as a reference in Section 4.12, Fire Protection and Emergency Response.
LACRPOSD-177	Adverse physical impacts associated with the provision of government facilities is beyond the scope of the fire protection section. This issue is discussed in Section 4.13, Public Services.
LACRPOSD-178	Construction activities are not expected to produce fire protection impacts that are greater than the impacts associated with operations. In addition, impact FP.1 is not limited to operations, since firewater supplies are applicable to the construction phase of the Project as well as the operational phase, and emergency response capabilities are applicable to the construction phase as well.
LACRPOSD-179	Equipment spacing is addressed with mitigation measure FP-1c.
LACRPOSD-180	Fire detection and foam requirements are addressed with mitigation measure FP-1c.
LACRPOSD-181	Communication with Capitan Emrick with the Los Angeles County Fire Department indicated that the fire protection requirements of the proposed Project would be minimal. This information as added to the cumulative section of 4.12, Fire Protection and Emergency Services.
LACRPOSD-182	No specific comment on the Draft EIR is included and, therefore, no response is provided. Nonetheless, it is the EIR preparers' contention that sufficient analysis is provided in Section 4.13, Public Services. Information on the Landfill capacity has been added to the FEIR, which, as indicated by Public Works, would be in excess of 40 years. Water demand associated with the proposed Project would be nominal compared to the current demand levels from the current providers.
LACRPOSD-183	The units as provided by the Applicant for trash and drill cuttings were provided in cubic yards. Additional text has been added to the Final EIR to convert these values to tons. Although the amount of drill cuttings that would be generated by the project would exceed the 5 tons per week, the Savage Canyon Landfill would have capacity to accommodate the cuttings and the impact would be less than significant.
LACRPOSD-184	The City of Whittier has indicated that sufficient water is available for the increased water demand associated with oil drilling operations at the Project Site. This statement has been included in Section 4.13.4
LACRPOSD-185	Section 4.13.4.1 has been clarified to state that none of the mitigation measures proposed for other issue areas would change the impacts discussed in Section 4.13.4.
LACRPOSD-186	It is our contention that sufficient analysis is provided in the EIR related to cumulative impacts and mitigation measures on water supply and solid waste disposal.
LACRPOSD-187	As stated in Section 4.14.4, crude oil and natural gas sales pipelines would be built under the existing Preserve Loop Road from the Project Site to Colima Road. Loop Road is located on a portion of the existing Arroyo Pescadero Trailhead. Loop Road may also serve as the LACoFD's secondary access route to the facility from Colima Road and may need to be widened to 20 feet. Both the road widening and the pipeline installation would take place during the Design and Construction Phase of the Project and would last approximately 6 months.

	Trails may be temporarily closed to recreational use during these activities for up to 6 to 9 months. The discussion of impact REC.1 in Section 4.14.4, has been modified to include the closure of the Arroyo San Miguel Trail and the related mitigation measure (BIO-4n) that will be implemented to reduce the impact.
LACRPOSD-188	Reference to the Los Angeles County Department of Parks and Recreation Strategic Asset Management Plan is included in Section 4.14.2.1; however, the plan does not appear to be available online, and detailed information has not been added. Reference to the web site was included.
LACRPOSD-189	Reference to the Los Angeles County Department of Parks and Recreation Strategic Asset Management Plan is included in Section 4.14.2.1; however, the plan does not appear to be available online, and detailed information has not been added. Reference to the web site was included.
LACRPOSD-190	As stated in Section 4.14.4, a portion of the existing Arroyo Pescadero Trailhead would be temporarily closed for approximately 6 to 9 months during construction of underground crude oil and natural gas sales pipelines. The resulting impacts from temporary trail closure to recreational users would be less than significant with mitigation.
LACRPOSD-191	Reference to the Los Angeles County Department of Parks and Recreation Strategic Asset Management Plan is included in Section 4.14.2.1; however, the plan does not appear to be available online, and detailed information has not been added. Reference to the web site was included.
LACRPOSD-192	Figure 4.14-2 is a large scale representation of the Project Site area. Figure 4.14-3 is a smaller scale map, which clearly shows that Project Site facilities would not be located on any of the trails in the Arroyo Pescadero Trailhead (pipelines are underground). Mitigation measure REC-1b has been included in the Final EIR and requires the temporary closure of affected portions of the Arroyo Pescadero Trailhead due to construction of the secondary access route road, widening, and underground pipeline installation. Since this closure will last approximately 6 to 9 months, it is not considered a significant impact. The trail closure is, in fact, a safety mitigation measure aimed at protecting the recreational user. Further, the discussion of impact REC.1 in Section 4.14.4has been modified to include the closure of the Arroyo San Miguel Trail for up to eight years and the related mitigation measure (BIO-4n) that may be implemented to reduce the impact.
LACRPOSD-193	The discussion mentioned in the comment is part of the impact analysis and it points out that there would be no noise impact to recreational users.
LACRPOSD-194	Trucks accessing the Truck Loading Facility would use the North Access Road. No facility trucks would use the secondary access route located on a portion of the Arroyo Pescadero Trailhead. Trucks using the North Access Road would be at least 500 feet from any of the trails. To reduce noise levels at the public Deer Loop Trail, a 16-foot tall noise wall would be installed on the south, west, and north sides of the Gas Plant equipment. This wall would reduce noise levels at the Loop Trail recreational receptor, including truck noise, to less than significant levels with mitigation.
LACRPOSD-195	The thresholds used in the EIR are more thorough and complete than those included in the CEQA, Appendix G referenced in the comment. Appendix G is a guideline and the City has chosen to use this more complete set of thresholds that encompass those suggested in the Guideline.
LACRPOSD-196	The mitigation measures in other issue areas that could increase construction fuel use would increase fuel use levels only minimally, and the proposed Project would still be a net producer of petroleum-based fuels. Text to this effect has been added to Section

	4.15.5.
LACRPOSD-197	Section 5.0 provides the preliminary screening analysis of alternatives, while Section 6.0 provides the actual environmental impact analysis of the Alternatives that come out of the screening analysis. It appears by the lack of comments on Section 6.0 that the commenter failed to review that section of the EIR, which would explain the lack of understanding shown in the comment.
LACRPOSD-198	As stated in the comment, the Alternatives are not required to have the same level of analysis required as part of the proposed Project. However, the alternatives do contain adequate information to ascertain impacts and mention that specific studies and design would have to be conducted prior to proceeding with the alternatives. Please see Section 6.0 of the Draft EIR.
LACRPOSD-199	The pipeline alignments included in the alternatives may encounter other utilities, but that is also the case for the proposed pipeline alignment. Conflicts with utilities during pipeline construction are dealt with routinely and do not result in impacts of significance.
LACRPOSD-200	The alternative analysis examines using the Loop Road for access to the site, including the Church intersection and the resulting impacts of utilizing Colima Road for all traffic. This analysis was conducted as part of the previous Draft EIR process since the previous proposed Project included access through Colima Road and a complete traffic analysis was conducted.
LACRPOSD-201	Each discussion of the possible alternative sites discusses both impacts that are greater and impacts that are less than the proposed Project. Further analysis in Section 6.0 defines which of those alternatives produce reductions in significant and unavoidable impacts.
LACRPOSD-202	In the context of the paragraph referenced, no “other sites,” meaning no others sites except the Landfill Site located outside of the Preserve were considered. The subsequent list of sites are all within the Preserve, aside from the Landfill site.
LACRPOSD-203	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. Detailed analysis of impacts for this issue area is included in Section 6.0. Access for this alternative would occur through existing Landfill roads. Section 6.1.2.7 provides a discussion of operational impacts associated with transportation. Construction impacts would be similar to those associated with the construction of improvements of roads within the landfill associated with the proposed Project. It appears by the lack of comments on Section 6.0 that the commenter failed to review that section of the EIR, which would explain the lack of understanding shown in the comment.
LACRPOSD-204	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. Detailed analysis of impacts for this issue area is included in Section 6.0. The part of this Alternative that would be located within the Preserve would be the pipelines, which would be located beneath the existing roads, which are currently disturbed and would not have any significant biological impacts.
LACRPOSD-205	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. Detailed analysis of impacts for this issue area is included in Section 6.1.2, Savage Canyon Landfill Alternative analysis.
LACRPOSD-206	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The North Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-207	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The North Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-208	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The North Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found

	to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-209	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Upper Canada Canyon Consolidated Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-210	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Upper Canada Canyon Consolidated Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-211	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Consolidated Upper Colima Road Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-212	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Consolidated Upper Colima Road Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-213	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Consolidated Upper Colima Road Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-214	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Historical Chevron Processing Facility Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-215	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The Historical Chevron Processing Facility Site Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-216	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. Detailed analysis of impacts and mitigation measures are included in Section 6.0.
LACRPOSD-217	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. In the screening analysis, the preparers provide information on impacts that would be more than the proposed Project and impacts that would be less than the proposed Project. For some of the biological impacts on the proposed Project impacts are less and for others, impacts are more. Specific analysis of the impacts and mitigation measures for this alternative is included in Section 6.0.
LACRPOSD-218	The Final EIR has been edited in response to this comment.
LACRPOSD-219	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. Specific analysis of the impacts and mitigation measures for this alternative is included in Section 6.0.
LACRPOSD-220	Please keep in mind that the portion of the EIR the commenter is referencing is the preliminary screening analysis. The La Habra Heights Pipeline Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-221	Please keep in mind that the portion of the EIR the commenter is referencing is the

	preliminary screening analysis. The Western Pipeline Alignment Alternative was contemplated in the screening analysis, but was discarded from further consideration because it was found to not lessen environmental impacts in comparison to the proposed Project.
LACRPOSD-222	Impact Summary tables are included in the Executive Summary. There is no provision in CEQA that would require the Project's significant and unavoidable impacts to be summarized in Section 7 of the EIR.
LACRPOSD-223	As stated in the comment, the Project is currently allowed by the City of Whittier General Plan and as such, no precedent is being set if the Project is approved. In addition, the City would have to work out an agreement with the County Parks and Recreation District that would be unique to this Project and unlikely to be duplicated elsewhere. The Draft EIR describes the potential for growth inducing impacts as part of the proposed Project to be limited since the Project would occur within the Habitat Preserve and is proposed to occupy only a limited amount of land to be able to produce oil and gas. Oil and gas production is limited to what is proposed by the Applicant and is intended to be able to recover oil reserves below the 1,290 acres of City owned property within the Preserve. The Applicant has determined that the majority of the oil and gas reserves can be recovered with their proposed Project and no additional projects or surface acreage would be needed in the future to produce the oil and gas. Producing oil and gas within parks or preserves is not unprecedented. As an example, many units of the national park system currently produce energy, including: Alibates Flint Quarries National Monument, Aztec Ruins National Monument, Big Cypress National Preserve, Big Thicket National Preserve, Big South Fork National River and Recreation Area, Cuyahoga Valley National Park, Fort Union Trading Post National Historic Site, Gauley River National Recreation Area, Lake Meredith National Recreation Area, New River Gorge National River, Obed Wild and Scenic River, Padre Island National Seashore, and Tallgrass Prairie National Preserve. In short, allowing oil and gas production within the Puente Hills Native Habitat Preserve is not a unique situation and would not lead to either additional oil and gas development on other parks or preserves that may not be already contemplated, and does not constitute a growth inducing impact. Finally, the decision-makers in considering this Project may decide to include a conservation easement for other areas that are owned by the City to offer additional protection for these areas in the future. However, a conservation easement is not required as part of any mitigation measures proposed in the EIR.
LACRPOSD-224	The comment only partially states the information included in the EIR. The following sentence is also part of this Section: "However, it is recognized that despite this new encroachment, oil field activities and open space recreational activities and facilities would be designed to co-exist, thereby allowing continued use of the Arroyo Pescadero Trailhead by recreational users."
LACRPOSD-225	Comment noted. The City is continuing to work with all interested parties and will hear all concerns in various public hearings before considering approval of the Project.
LACRPOSD-226	The comment raises a legal issue and not an environmental issue under CEQA. No response is required.
LACRPOSD-227	Please see response LACRPOSD-5 above.
LACRPOSD-228	The City staff working on this environmental document have been included in the list of EIR preparers.
LACRPOSD-229	The list of agencies contacted has been updated as appropriate.
LACRPOSD-230	The distribution list has been included as an Appendix.

Native American Heritage Council

NAHC-1	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to discovered cultural resources. Requirements for Native American review of human remains is discussed under impact CR.2.
NAHC-2	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to discovered cultural resources. Section 4.9.1.3 discusses a review of the California Historic Resources system
NAHC-3	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to discovered cultural resources. Requirements for Native American review of human remains is discussed under impact CR.2.
NAHC-4	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to discovered cultural resources.
NAHC-5	The EIR preparers agree that informal coordination and communication with tribes leads to better consultation on projects.
NAHC-6	All Native American members on the list provided by the NAHC were contacted for the preparation of this EIR.

Puente Hills Landfill Native Habitat Preservation Authority

PHLNHPA-1	The schedule presented in Figure 2-13 does not encompass the time required for permitting and design. CEQA does not require that we include this information.
PHLNHPA-2	The Loop Trail Road would be potentially used as a secondary fire access. The LACoFD requires that fire access roads have an all-weather surface, which could mean gravel or other materials and does not necessarily mean paving. Other roads, including the North Access Road, would be paved. To reduce the Project's aesthetic impacts for hikers, the Applicant shall be required to use a polymer emulsion product, or gravel or another form of paving acceptable to the Habitat Authority, on the Arroyo Pescadero Loop Trail. Please see mitigation measure REC-1b.
PHLNHPA-3	Section 4.1, Air Quality, indicates that GHG sequestration by tree planting could generate approximately 0.1 tonnes of CO2e sequestration per year per tree. Therefore, 500 trees could sequester approximately 50 tonnes per year, only a small fraction of the amount of GHG generated by the Project. The tree planting mitigation would not be able to sequester the necessary amount of GHG emissions and additional measures, as discussed in impact AQ.4, would be required. All planting of trees conducted under mitigation measure AQ-4 shall be treated comparably to native habitat restoration under mitigation measure BIO-2a. Each tree planted under mitigation measure AQ-4 shall be native to the watershed in which it is to be planted, and all aspects of the planting plan shall comply with the Habitat Authority's Restoration Guidelines, as specified in Appendix N of the RMP (LSA 2007, Pages 251-372). Plantings undertaken under MM AQ-4 shall be limited to graded areas, or to areas currently vegetated with non-native vegetation that the Habitat Authority has identified as having potential for restoration to a native plant community. Additionally, all mitigation (including all tree plantings under mitigation measure AQ-4) must comply with the Restoration Plans for Mitigation and Monitoring Plans found on the Habitat Authority's web page (http://www.habitatauthority.org/devdedmit.shtml).

PHLNHPA-4	The significance criteria identified in Section 4.2.3 of the revised Draft EIR are based upon the criteria specified in Appendix G of the CEQA Guidelines. The EIR preparer and CEQA Lead Agency have exercised judgment and discretion in determining a) when actions proposed at this specific Project Site – as it exists on the landscape and as it is described in the Draft EIR's Setting – meet or exceed the significance criteria; b) the level of mitigation required to reduce each impact to below the level of significance in this specific Setting; and c) the level of significance after mitigation – again, in the specific Setting described in the CEQA document. The EIR preparer and City of Whittier regard this as the appropriate approach to implementing CEQA, rather than modifying the basic significance criteria from project to project.
PHLNHPA-5	Figure 4.2-1 and Figure 4.2-2 depicts the plant communities in the baseline section. Figures 4.2-8 and 4.2-9 contained in the Impact Analysis section, shows the Project footprint with fuel modifications and grading. Grading for North Access Road assumed a 20-foot setback for retaining wall installation. A scale has been added to these figures.
PHLNHPA-6	The purpose of Figure 4.2-5 is to show all potential wildlife movement trails in the Project Area. Although the EIR preparers agree that densely revegetated roads are less likely for human access, wildlife are still expected to be able to use these trails and roads.
PHLNHPA-7	The title for Figure 4.2-10 has been changed in the Final EIR. Figure 4.2-10 now reads "Service Tunnel Under Colima Road."
PHLNHPA-8	The Draft EIR identifies mitigation measures that the EIR preparer and Lead Agency consider adequate, under CEQA, to reduce the Project's impacts and potential impacts to the California gnatcatcher to a level less than significant. In addition, MM BIO-1d specifies that the Project proponent shall consult with the USFWS to ensure compliance with the federal Endangered Species Act. If, during the required consultation, the USFWS were to determine that supplemental surveys would be required to achieve compliance with federal law, the Project proponent would be required to undertake such surveys. If the USFWS were to determine that additional mitigation would be required to achieve compliance with federal law, based upon new information, the Project proponent would be required to provide such mitigation in order to comply with both federal law and CEQA (since mitigation measure BIO-1d specifies that the Project proponent shall obtain an Incidental Take Statement, if the USFWS determines that this is necessary). Since the EIR preparer and Lead Agency have concluded that the Draft EIR's mitigation measures are adequate to reduce the project's impacts – and potential impacts – to the California gnatcatcher to a level less than significant, it is also concluded that no additional surveys shall be required unless they are at the direction of the USFWS (in which case the surveys would be needed to satisfy mitigation measure BIO-1d).
PHLNHPA-9	The Draft EIR's evaluation of potential noise impacts – and potential impacts upon California gnatcatchers specifically – is based upon review of the current relevant literature. As noted in the Draft EIR, a five-year study of the potential effects of construction upon California gnatcatchers and least Bell's vireos concluded that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor." The Draft EIR also included the following summary from the Birds of North America species account for the California gnatcatcher: > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). These findings indicate that California gnatcatchers have a relatively high tolerance for noise, and the commenter has not provided any contrary evidence to support the assertion that the Draft EIR failed to take into account the increased volume of traffic on the North Access Road during the project's construction phase.

PHLNHPA-10	The commenter is correct in noting that a statement on Page 4.2-57 of the Draft EIR incorrectly groups the bobcat – a species that shows a moderately negative response to urbanization – with species that have either a generally positive response (coyote and raccoon) or a mixed response (mule deer). The EIR has been changed to state that bobcats do show a negative response to urbanization. The statement in question does not affect the Draft EIR's findings or conclusions with regard to the Project's potential effects on bobcats or other wildlife; it was intended only to briefly summarize the Draft EIR's extensive review of wildlife response to urbanization, which focuses largely on the bobcat. For example, Page 4.2-39 of the Draft EIR states, "Research indicates that bobcats, known breeders in the Core Habitat Management Zone, are among the species known to avoid urban edges." Page 4.2-39 of the Draft EIR states: Ordeñana and colleagues found bobcats at 74% of "camera traps" (161 of 217) spread across 11 locations in coastal southern California, and they stated, "Coyotes and bobcats were distributed widely across southern California, suggesting their behavioral plasticity and adaptability relative to other large carnivore species." Their Figure 2, a logistic regression model plotting "probability of occurrence" against "distance to urban edge," shows that the probability of bobcat occurrence decreases from approximately 80% at 1500 m from the edge to approximately 70% at the urban edge itself (i.e., a moderate negative response of bobcats to urbanization). Citing the same study, the commenter states that "bobcats are one of only three species . . . that show a consistently negative response to urbanization while all other mammals in the study showed a positive response." This comment is consistent with the findings and conclusions of the Draft EIR with respect to potential project impacts to the bobcat. The commenter interprets the findings of Ordeñana and colleagues as indicating a more severe negative response than the EIR preparers do, but this is a difference of opinion, as the commenter does not demonstrate that the Draft EIR misrepresents any findings or conclusions of this or any other study. The EIR preparers have now reviewed the Habitat Authority's 2010 report, "Changes in Large and Medium-bodied Mammal Activity Following Eight Years of Recreation and Other Activities: The Colima Road Underpass and Vicinity." This new report provides up-to-date information that is relevant to the EIR's consideration of wildlife movement issues and potential adverse effects of project implementation upon bobcats and other species. The commenter summarizes the findings of the report by stating: . . . bobcat activity at the Service Tunnel [beneath Colima Avenue] has decreased by approximately one-third since it was opened to public use in 2002. This study also showed that bobcat activity in the area around the Tunnel, including portions of the proposed Project Area within and near Arroyo Pescadero, has decreased substantially since the late 1990's, which was after oil activities had ceased in the area but before it was opened to recreational activity. The EIR preparers agree that the 2010 report provides important, current information on wildlife activity in the project vicinity, but this comment provides an incomplete summary of the report's content. For example, Page 8 of the report notes a "significant increase in bobcat activity in 2009-10 compared to 2001-02 [that] appears to be primarily due to significant increases at the West Transect, but is also due to substantial increases at the Central and East transects." The West Transect is in Arroyo Pescadero, the Central includes the Service Tunnel, and the East is in Arroyo San Miguel. Page 20 of the report states: The bobcat activity along the Central Transect is higher than it was in 2001-2002, but is still not nearly as high as it was in 1997-1998; some of this may be due to the lack of

	woody vegetative cover from eucalyptus tree removal conducted by the Fire Department in 2008, and from habitat restoration activities implemented on both sides of the Colima Tunnel in late 2009 and early 2010. And: The bobcat activity along the West Transect is higher than in 2001-2002, but still nearly half of what was observed in 1997-1998. Given that no large-scale restoration or other major management activities have occurred recently in the vicinity of that transect, the most likely reason for the lower activity level is from increased recreational use, which has increased by nearly five times according to recent motion-sensor camera data. Similar reductions in bobcat, and overall wildlife activity, from increased recreational use have been observed in other studies (George and Crooks 2006). The report suggests that decreased bobcat use of the Service Tunnel from 2001-2002 to 2009-2010 was probably due a five-fold increase in recreational use of the tunnel during the same period. Another contributing factor may relate to increased coyote use of the tunnel, as coyotes may inhibit bobcats from using the tunnel. The report continues on Page 22: If most of the [bobcat] photos were generated by one individual, and if it decided to shift its home range away from the tunnel, or if it chose to use another route to cross Colima Road, this could have strongly affected the bobcat activity. This statement indicates how small the study's sample size was, and how easily the data and resulting analyses may have been distorted through the problems that accompany very small sample sizes. If one bobcat changing its travel route could "strongly affect" the study's metrics on bobcat movement through the area, this fact necessarily limits the reliability of any conclusions one might legitimately reach based upon those metrics. This is not to criticize the study itself – there was probably no way to overcome the problem of a small sample size in this study – but the EIR biologists see potential for the tenuous results of such a study to be oversold, either in favor of or in opposition to the proposed Project. In summary, Page 23 states: The results of this study indicate that while increases in recreational use have affected some wildlife activity since the area was opened to public use in 2002, the area still exhibits the highest bobcat activity in the entire Preserve and has not substantially reduced the effectiveness of the Colima Service Tunnel as a major movement path under busy Colima Road, although bobcat use of the Tunnel has decreased. However, further increases in human activity in the area could adversely affect wildlife activity in the area, particularly use of the Colima Service Tunnel. It seems likely that further increases in human activity close to the Service Tunnel would adversely affect wildlife use of the tunnel. This was the finding of the original Draft EIR for this project, which included a proposal for an East Well Pad near the western terminus of the Service Tunnel. The EIR biologists do not believe, however, that oil development actions proposed approximately 1,700 feet west of the Service Tunnel are likely to have substantial adverse effects on wildlife use of the tunnel. The study also concludes: Additional human development in this area, such as from the proposed oil project, could affect bobcat activity in this area, possibly causing them to shift their home ranges or movement paths further north into the remaining habitat. Avoidance of oil

	drilling activities may be one reason why bobcats were not observed along a transect in Sycamore Canyon in a previous study (Stapp and Elliott 2008, unpublished data). Avoidance of proposed oil activities in the Core Habitat and vicinity could shift bobcat and other wildlife movement to the another possible primary movement route along the Skyline Ridge at the top of the La Canada Verde watershed (Core Habitat), which may cause them to cross Colima Road north of the tunnel. However, this is the location where most large mammal roadkills have historically occurred. This could significantly affect wildlife movement through the corridor by either causing more roadkills at this location or by causing the animals to avoid crossing Colima Road at this location in order to avoid collisions. The Service Tunnel will continue to be available for wildlife movement, major trails will still lead to and from the tunnel, the Arroyo San Miguel Trail will be closed to recreational use during construction or drilling activities, and all proposed project elements have been moved a minimum of 1,000 feet away from the tunnel. The EIR biologists consider it very likely that bobcats will continue to use the Service Tunnel, and the existing trail that crosses the Arroyo Pescadero. The EIR biologists further consider it likely that bobcats will shift their movement route away from the roadway that passes directly adjacent to, and south of, the proposed Well Pad Site, moving instead through the hills to the north (after crossing the Arroyo Pescadero on the existing road that leads to/from the Service Tunnel). For reasons explained in the Draft EIR, the EIR biologists consider this scenario to represent an adverse Project effect upon the bobcat, and on wildlife movement in general, but one that is less-than-significant with provision of the required mitigation measures. Comments related to the lease are a legal comment and not an environmental one under CEQA, therefore, no response is required.
PHLNHPA-11	The commenter is correct in noting that a statement on Page 4.2-57 of the Draft EIR incorrectly groups the bobcat – a species that shows a moderately negative response to urbanization – with species that have either a generally positive response (coyote and raccoon) or a mixed response (mule deer). The EIR has been changed to state that bobcats do show a negative response to urbanization. The statement in question does not affect the Draft EIR's findings or conclusions with regard to the Project's potential effects on bobcats or other wildlife; it was intended only to briefly summarize the Draft EIR's extensive review of wildlife response to urbanization, which focuses largely on the bobcat. For example, Page 4.2-39 of the Draft EIR states, "Research indicates that bobcats, known breeders in the Core Habitat Management Zone, are among the species known to avoid urban edges." Page 4.2-39 of the Draft EIR states: > Ordeñana and colleagues found bobcats at 74% of "camera traps" (161 of 217) spread across 11 locations in coastal southern California, and they stated, "Coyotes and bobcats were distributed widely across southern California, suggesting their behavioral plasticity and adaptability relative to other large carnivore species." Their Figure 2, a logistic regression model plotting "probability of occurrence" against "distance to urban edge," shows that the probability of bobcat occurrence decreases from approximately 80% at 1500 m from the edge to approximately 70% at the urban edge itself (i.e., a moderate negative response of bobcats to urbanization). Citing the same study, the commenter states that "bobcats are one of only three species . . . that show a consistently negative response to urbanization while all other mammals in the study showed a positive response." This comment is consistent with the findings and conclusions of the Draft EIR with respect to potential project impacts to the bobcat. The commenter interprets the findings of Ordeñana and colleagues as indicating a more severe negative response than the EIR preparers do, but this is a difference of opinion, as the commenter does not demonstrate that the Draft EIR

	misrepresents any findings or conclusions of this or any other study. The EIR preparers have now reviewed the Habitat Authority's 2010 report, "Changes in Large and Medium-bodied Mammal Activity Following Eight Years of Recreation and Other Activities: The Colima Road Underpass and Vicinity." This new report provides up-to-date information that is relevant to the EIR's consideration of wildlife movement issues and potential adverse effects of project implementation upon bobcats and other species. The commenter summarizes the findings of the report by stating: > . . . bobcat activity at the Service Tunnel [beneath Colima Avenue] has decreased by approximately one-third since it was opened to public use in 2002. This study also showed that bobcat activity in the area around the Tunnel, including portions of the proposed Project Area within and near Arroyo Pescadero, has decreased substantially since the late 1990's, which was after oil activities had ceased in the area but before it was opened to recreational activity. The EIR preparers agree that the 2010 report provides important, current information on wildlife activity in the project vicinity, but this comment provides an incomplete summary of the report's content. For example, Page 8 of the report notes a "significant increase in bobcat activity in 2009-10 compared to 2001-02 [that] appears to be primarily due to significant increases at the West Transect, but is also due to substantial increases at the Central and East transects." The West Transect is in Arroyo Pescadero, the Central includes the Service Tunnel, and the East is in Arroyo San Miguel. Page 20 of the report states: > The bobcat activity along the Central Transect is higher than it was in 2001-2002, but is still not nearly as high as it was in 1997-1998; some of this may be due to the lack of woody vegetative cover from eucalyptus tree removal conducted by the Fire Department in 2008, and from habitat restoration activities implemented on both sides of the Colima Tunnel in late 2009 and early 2010. And: > The bobcat activity along the West Transect is higher than in 2001-2002, but still nearly half of what was observed in 1997-1998. Given that no large-scale restoration or other major management activities have occurred recently in the vicinity of that transect, the most likely reason for the lower activity level is from increased recreational use, which has increased by nearly five times according to recent motion-sensor camera data. Similar reductions in bobcat, and overall wildlife activity, from increased recreational use have been observed in other studies (George and Crooks 2006). The report suggests that decreased bobcat use of the Service Tunnel from 2001-2002 to 2009-2010 was probably due a five-fold increase in recreational use of the tunnel during the same period. Another contributing factor may relate to increased coyote use of the tunnel, as coyotes may inhibit bobcats from using the tunnel. The report continues on Page 22: > If most of the [bobcat] photos were generated by one individual, and if it decided to shift its home range away from the tunnel, or if it chose to use another route to cross Colima Road, this could have strongly affected the bobcat activity. This statement indicates how small the study's sample size was, and how easily the

	data and resulting analyses may have been distorted through the problems that accompany very small sample sizes. If one bobcat changing its travel route could "strongly affect" the study's metrics on bobcat movement through the area, this fact necessarily limits the reliability of any conclusions one might legitimately reach based upon those metrics. This is not to criticize the study itself – there was probably no way to overcome the problem of a small sample size in this study – but the EIR biologists see potential for the tenuous results of such a study to be oversold, either in favor of or in opposition to the proposed Project. In summary, Page 23 states: > The results of this study indicate that while increases in recreational use have affected some wildlife activity since the area was opened to public use in 2002, the area still exhibits the highest bobcat activity in the entire Preserve and has not substantially reduced the effectiveness of the Colima Service Tunnel as a major movement path under busy Colima Road, although bobcat use of the Tunnel has decreased. However, further increases in human activity in the area could adversely affect wildlife activity in the area, particularly use of the Colima Service Tunnel. It seems likely that further increases in human activity close to the Service Tunnel would adversely affect wildlife use of the tunnel. This was the finding of the original Draft EIR for this project, which included a proposal for an East Well Pad near the western terminus of the Service Tunnel. The EIR biologists do not believe, however, that oil development actions proposed approximately 1,700 feet west of the Service Tunnel are likely to have substantial adverse effects on wildlife use of the tunnel. The study also concludes: > Additional human development in this area, such as from the proposed oil project, could affect bobcat activity in this area, possibly causing them to shift their home ranges or movement paths further north into the remaining habitat. Avoidance of oil drilling activities may be one reason why bobcats were not observed along a transect in Sycamore Canyon in a previous study (Stapp and Elliott 2008, unpublished data). Avoidance of proposed oil activities in the Core Habitat and vicinity could shift bobcat and other wildlife movement to the another possible primary movement route along the Skyline Ridge at the top of the La Canada Verde watershed (Core Habitat), which may cause them to cross Colima Road north of the tunnel. However, this is the location where most large mammal roadkills have historically occurred. This could significantly affect wildlife movement through the corridor by either causing more roadkills at this location or by causing the animals to avoid crossing Colima Road at this location in order to avoid collisions. The Service Tunnel will continue to be available for wildlife movement, major trails will still lead to and from the tunnel, the Arroyo San Miguel Trail will be closed to recreational use during construction or drilling activities, and all proposed project elements have been moved a minimum of 1,000 feet away from the tunnel. The EIR biologists consider it very likely that bobcats will continue to use the Service Tunnel, and the existing trail that crosses the Arroyo Pescadero. The EIR biologists further consider it likely that bobcats will shift their movement route away from the roadway that passes directly adjacent to, and south of, the proposed Well Pad Site, moving instead through the hills to the north (after crossing the Arroyo Pescadero on the existing road that leads to/from the Service Tunnel). For reasons explained in the Draft EIR, the EIR biologists consider this scenario to represent an adverse Project effect upon the bobcat, and on wildlife movement in general, but one that is less-than-

	significant with provision of the required mitigation measures.
PHLNHPA-12	This comment asserts that the Draft EIR used earlier oil operations, rather than the existing conditions, as the "baseline conditions" for the impact analysis. This represents a mis-reading of the Draft EIR and its impact analysis. The Setting describes the conditions as they currently exist, and the impact analysis evaluates the anticipated impacts to only the existing conditions. The EIR preparer considers it relevant that, until the early 1990s, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, and that wildlife species including bobcat, continue to use, or have returned to the area to use, the resources that are currently present on the Project Site. This is different than using the former conditions as the baseline for the Draft EIR's impact analysis. The Draft EIR did not assert or imply that "previous oil operations did not have an adverse effect on wildlife" or that wildlife either did or did not avoid the previous oilfield operations. The observation made in the Draft EIR was that, for many decades, the Project area was subject to much more extensive oilfield operations than are now being proposed, and that wildlife species including bobcat continue to use, or have returned to the area to use, the resources that are currently present there. These are not controversial observations, but simple statements of fact. The EIR preparers concur with the commenter that the surrounding areas are now more highly developed than they were historically, and that the area is subject to greater recreational impacts, but we believe that these differences are relatively minor compared with the major differences between the previous oilfield operations and those currently proposed.
PHLNHPA-13	The Draft EIR focused on potential adverse noise effects upon bats and birds mainly because 1) noise studies have largely focused upon those groups of species, 2) bats are especially reliant upon sound-detection for capturing prey, and 3) a listed bird species, the California gnatcatcher, is known to occur in the project vicinity. The noise impacts identified for birds and bats are intended to be generalized to other types of wildlife, including medium and large mammals, and noise mitigation measures identified in the Draft EIR will benefit medium and large mammals. The commenter has not provided information to suggest that noise will have greater adverse effects upon medium or large mammals than upon bats or birds, or that additional feasible mitigation measures exist that could reduce noise effects upon medium or large mammals.
PHLNHPA-14	The Draft EIR reviewed and discussed the findings of studies that have identified the La Cañada Verde watershed as a wildlife nursery site. The supplemental factual information provided in this comment, concerning the sensitivity of female bobcats to disturbance, their avoidance of paved roads, and their reliance upon natural areas for breeding, is accepted and incorporated by reference into the EIR. The EIR biologists recognize the potential for Project implementation to have some level of adverse effect upon wildlife in the nearby area, but do not share the commenter's opinion that implementation of the Project, as currently proposed and mitigated, would result in potentially significant adverse effects upon the capacity of the La Cañada Verde watershed to continue to function as a viable nursery site for the bobcat, mule deer, or other wildlife species currently known or likely to occur there.
PHLNHPA-15	The exact characteristics and duration of the vibration associated with the drilling or construction activities are difficult to determine as vibrations are a function of the exact equipment types, arrangement and geology of the site. Most likely, vibration levels analyzed in the Draft EIR would not be experienced at the site as these levels are substantially higher than vibration measurements taken during other drilling activities have measured. The high levels estimated in the Draft EIR are a worst case vibration level that might be experienced for a short duration. Robert Hamilton has been working as a wildlife biologist in coastal southern California since 1988, and in this time he has observed wildlife response to various types of construction activity. The most closely Mr. Hamilton has observed the response of a species reported to be highly sensitive to noise and vibration was

between March 1 and May 15, 2010, Mr. Hamilton observed the response of nesting herons to renovation of existing walkways at Burton Chace Park, located in Marina del Rey, Los Angeles County. Of particular concern was the presence of 12 pairs of Black-crowned Night-Herons (*Nycticorax nycticorax*; BCNH) that were actively nesting in the park. The most intensive noise and vibration effects came on the afternoon of March 22, when an adult BCNH attending to small young in the nest was subjected to breaking of concrete approximately 40 feet away. During a period lasting 47 minutes, noise levels measured near the BCNH nest were generally in the range of 85–95 dBA, and in a few instances exceeded 100 dBA. Mr. Hamilton's contemporaneous field notes for this episode state:

> Attending adult BCNH looked up quickly at the first impact of the pneumatic hammer, and then bobbed its head a few times before assuming an alert, but still, posture; later, the bird preened, perhaps nervously, and stood up in the nest, but remained hunched over the young in the nest; the noise was very loud and sudden, and quite close to the nest, so this was close to a "worst-case scenario" in terms of construction activity below a nest site; by outward appearances, the attending adult BCNH was definitely concerned about the activity, but not disturbed enough to either vocalize, stretch its wings, or leave the nest.

Later in the afternoon, Mr. Hamilton observed:

> BCNH sitting quietly on nest after standing and preening for a little over an hour; photo showing this; one nestling barely visible in nest; birds not vocalizing or behaving as if disturbed.

In 2010, Mr. Hamilton monitored a pair of Cooper's Hawks (*Accipiter cooperii*) that nested in a eucalyptus grove immediately adjacent to an area of heavy construction at North High School in Torrance. Careful monitoring allowed the construction project to proceed on schedule and without major modifications, despite the hawks nesting directly above the area where a running track was being reworked and turf was being replaced, all with heavy machinery. Ultimately, Mr. Hamilton documented the successful fledging of six young hawks from this nest. At no time did these birds show any overt adverse response to the work going on beneath their nest, and the production of six fledglings was very high for this species.

From 2006 through 2010, Mr. Hamilton monitored the dredging of Upper Newport Bay. The purpose of monitoring was been to ensure that dredge operations did not entail unnecessary adverse effects upon any of the listed and otherwise sensitive species that live in and around the bay. On occasion, Mr. Hamilton observed terns and/or skimmers nesting and roosting on islands in the bay respond to loud clanging of dredge buckets by taking flight, but the birds quickly returned and did not appear to suffer substantial adverse effects from these short-term disturbances.

Currently, Mr. Hamilton is involved in a study of a colony of California Least Terns (*Sternula antillarum browni*) that nests on gravelly ovals located immediately adjacent to the runways at San Diego International Airport (Lindbergh Field). These listed birds have maintained a colony at this precarious location for decades, despite the periodic noise and vibration produced by takeoffs and landings of jets.

Nesting herons, raptors, and terns are, in many settings, easily disturbed by human activity, but those occupying habitat fragments studied by Mr. Hamilton in southern California have shown themselves to be highly resilient even in areas adjacent to heavy construction and dredging operations. Whereas it is true that some species, such as the cactus wren (*Campylorhynchus brunneicapillus*), are failing to thrive in the

	increasingly fragmented habitats of southern California, it has been Mr. Hamilton's experience that most wildlife species that are moderately "disturbance-sensitive," including the bobcat, are finding ways to adapt to nearby human activity.
PHLNHPA-16	This comment repeats statements contained in the Draft EIR, and is essentially a preamble to the more specific comments PHLNHPA-17 through 19. No additional response is required.
PHLNHPA-17	Improvements on the North Access Road which include grading and installing retaining walls and traffic barriers ("k-rails as depicted in Appendix A) on steeper slopes are not expected to substantially affect wildlife movement on the access road because the retaining walls are located in areas with steeper slopes adjacent to cuts along the existing roads (which are already less likely to be used for wildlife access). Additionally, MM BIO-4b restricts permanent solid walls or requires the placement of wildlife passage corridors which will ensure wildlife access off of the road.
PHLNHPA-18	Hauling activities during the construction phase, which includes up to 84 round trip truck trips per day during the construction phase, have the potential to disturb nesting birds including nesting California gnatcatchers and wildlife movement. The noise contour analysis describes noise levels higher than 60dBA on 8.4 acres of native or naturalized habitats located along the North Access Road which is identified as a temporary potentially significant impact. To mitigate the temporary impacts to native and naturalized habitats due to noise impacts associated with truck hauling on the North Access Road, the Applicant shall provide minimum 1:1 areal replacement of 8.4 acres of native habitat. In total, the Applicant shall restore 36.8 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero watersheds to native communities.
PHLNHPA-19	Mitigation measure BIO 1-c has been clarified as follows: *All nighttime traffic shall be minimized during the construction and operational phases and permitted only for activities required for safety reasons or emergencies; all hauling activities shall be restricted to daylight hours, defined as the hours after sunrise and before sunset. This restriction shall be in addition to any others placed on the Project, including by MM N-4, which is intended mainly to limit noise impacts upon neighboring residential communities, consistent with the City Municipal Code.*
PHLNHPA-20	The EIR biologists agree with the commenter that wildlife species are likely to alter their existing movement patterns in response to project disturbances. The Draft EIR found that "increased levels of drilling operations and human activities in the Core Habitat, which currently has minimal disturbances, would result in substantial impacts to wildlife movement." Mitigation measures in section 4.2, Biological Resources, measure BIO-4a through BIO-4n, address impacts related to wildlife movement issues. It is widely recognized that the Service Tunnel is a critically important linkage and "choke point" for wildlife moving through the project vicinity. Data from the Habitat Authority's 2010 movement study suggest that recreational use of the tunnel may be reducing use of the tunnel by bobcats and other terrestrial species in the existing condition. The EIR biologists view removal of recreational pressure on wildlife use of the tunnel during periods of construction and drilling as a viable means of increasing the tunnel's attractiveness as a linkage, thereby helping to avoid any possible increase in wildlife crossing Colima Road at grade farther north. The EIR biologists do not agree with the assertion that "Animals diverted north by activity in the Core Habitat [i.e., La Cañada Verde watershed] will most logically try to cross Colima Road to the north." The upper Arroyo Pescadero is a densely vegetated watershed, with no established pathways or topographic features that encourage east/west movement of terrestrial wildlife. This is not to say that such movement does not occur anyway – roadkill data for Colima Road clearly show that it does. Assuming that terrestrial movement in the La Cañada Verde watershed tends to be shifted north of the Well Pad Site, the question is whether bobcats and other

	terrestrial species are likely to consider northerly at-grade crossings as more attractive than use of the Service Tunnel. Given that both the topography and trail system encourage wildlife moving east and west to cross the Arroyo Pescadero on the existing road that leads to/from the Service Tunnel, and given other measures identified in the Draft EIR to improve the tunnel's attractiveness to wildlife, the EIR biologists consider it likely that terrestrial wildlife will continue to use the Service Tunnel as the primary means of crossing Colima Road.
PHLNHPA-21	Comment noted. Enhancement of the existing parking area at La Flore Drive is one of the three options delineated in the Draft EIR to help mitigate impacts to recreational use of the Preserve associated with Project implementation.
PHLNHPA-22	A study of wildlife movement would not directly help to alleviate impacts to wildlife movement identified in the Draft EIR, but the EIR biologists agree that this would be a useful resource management tool and have added Cumulative BIO-3 which requires a long-term research project.
PHLNHPA-23	The EIR biologists evaluated the potential utility of constructing either a wildlife overpass or underpass north of the Service Tunnel, as recommended in this comment. We concluded, however, that the potential adverse effects of opening more of the Arroyo Pescadero watershed to human/recreational use would likely balance or possibly outweigh the potential benefits of providing a second safe route across Colima Road. The EIR biologists do not believe that Colima Road represents a substantial barrier to dispersal of the California gnatcatcher through the project vicinity, and therefore do not share the commenter's opinion that that provision of a vegetated overpass would represent a useful conservation measure for this species.
PHLNHPA-24	Designation of the Project vicinity as a "core habitat area" is relevant, and it justifies intensive efforts to minimize adverse impacts and to provide greater habitat replacement ratios than might be required in a different setting. Nevertheless, we do not believe there is strong support in the literature for the idea that implementation of the proposed project, including all required mitigation measures, is likely to turn substantial areas of "live in" habitat into "pass through" habitat, or turn "core habitat" into an "ecological sink" that will cause wildlife to enter the area only to perish. For many decades the project area was subject to much more intensive drilling than is now being proposed, without biological mitigations. Now, two decades after cessation of the former oil operations, this part of the Preserve is regarded as having some of the highest values for wildlife in the Preserve. This is one reason that the EIR biologists conclude that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter. Given that the proposed Project or alternatives would impact only a small fraction of the core habitat management zone (approximately 2% or less), we conclude that the establishment of new/expanded "core habitat," or the preparation of a new/amended Resource Management Plan, would be beyond the scope of what CEQA requires.
PHLNHPA-25	The EIR preparers appreciate this information from the Habitat Authority concerning the potential need to close the Arroyo Pescadero and/or Deer Loop public use area to dogs, and possibly all recreational users, in order to help maintain viable wildlife movement opportunities. As noted in the comment, "Restricting human activity in this area has already been recommended in other studies." It is recognized that construction and drilling operations associated with the proposed project would represent additional human-related disturbances in this general area, and that this could result in the Habitat Authority deciding to close some or all of the local area to dogs or possibly all recreational users during the construction and drilling phases of the proposed project. It is appropriate to disclose this possibility as part of the CEQA review process. The EIR biologists view removal of recreational pressure on wildlife use of the

	Service Tunnel during periods of construction and drilling as a viable means of increasing the tunnel's attractiveness as a linkage, thereby helping to avoid any possible increase in wildlife crossing Colima Road at grade farther north (see mitigation measures under impact BIO.4 in section 4.2, Biological Resources). With regard to potentially closing some or all of the Arroyo Pescadero to dogs, or possibly all recreational users, during the project's construction and drilling phases, we believe the issue warrants ongoing study and evaluation. As discussed in response to PHLNHPA-22, the Project Proponent shall fund a multi-year scientific study that will help to address this and other wildlife-movement issues in the Preserve. If this or another study indicates that the Arroyo Pescadero should be closed to dogs, or all recreational users, the Habitat Authority would be justified in taking this type of management response. We believe it would be premature to make this decision now, before the study begins.
PHLNHPA-26	Temporary impacts to habitats identified in mitigation measure BIO-1b would be mitigated at a 2:1 replacement ratio to reduce the level of the temporal loss of habitat. All areas temporarily impacted would be replanted with appropriate native habitats as designated by the HA guidelines.
PHLNHPA-27	Hauling activities during the construction phase, which includes up to 84 round trip truck trips per day during the construction phase, have the potential to disturb nesting birds including nesting California gnatcatchers and wildlife movement. The noise contour analysis describes noise levels higher than 60dBA on 8.4 acres of native or naturalized habitats located along the North Access Road which is identified as a temporary potentially significant impact. To mitigate the temporary impacts to native and naturalized habitats due to noise impacts associated with truck hauling on the North Access Road, the Applicant shall provide minimum 1:1 areal replacement of 8.4 acres of native habitat. In total, the Applicant shall restore 36.8 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero watersheds to native communities.
PHLNHPA-28	The commenter is correct in pointing out that an EIR's discussion of residual impacts should focus upon whether the impact is judged to meet the relevant threshold of significance after provision of mitigation. It was not the intent of the EIR preparer to imply that "catastrophic" impacts or "the loss of an entire species from the area" were the threshold being applied, but it is understandable that a reader might interpret these statements as the commenter did. The significance criteria identified in Section 4.2.3 of the revised Draft EIR are based upon the criteria specified in Appendix G of the CEQA Guidelines, and those were the thresholds applied.
PHLNHPA-29	The commenter notes that "the Draft EIR did not provide evidence or data showing how wildlife reacted to previous oil activities." CEQA requires that the EIR preparer focus on evaluating the existing conditions. The EIR preparer noted that the high-value conditions for wildlife that exist in the project area now have come about in the wake of previous oil operations in the area that were much more extensive than what is now being proposed. This is a valid point to raise in the context of evaluating what the future conditions of the area are likely to be once oil operations cease again after the 30-year life of the Project. The commenter is correct to point out that today's high wildlife values have come to be, in part, due to the Habitat Authority's extensive restoration of previously degraded habitats and other measures designed to facilitate recovery of wildlife populations. Similarly, the Draft EIR identifies an extensive array of habitat restoration and other mitigation measures that are known to have positive effects upon native wildlife populations. This is not to suggest that the effects of project implementation are likely to be generally positive, at least during the 30-year life of the Project, and the Draft EIR has not indicated otherwise. But the EIR biologists believe that all wildlife populations that exist in the project area now are very likely to persist there for the life

	of the project, and to fully recover from any adverse short-term or medium-term effects of the project once oil operations again come to an end three decades into the future. The EIR biologists believe that the mitigation measures identified in the Draft EIR, together with additional measures identified in the Final EIR, represent the appropriate level of mitigation to reduce all impacts to biological resources to a level less than significant under CEQA.
PHLNHPA-30	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit. The discussion within Section 4.11 states partially as follows: > The Project Site is designated as open space of "high sensitivity" under the City of Whittier General Plan. Although many of the General Plan's open space policies identify the need to preserve and carefully manage such areas, the Plan also calls for a “balance between oil drilling activities and the protection of plant and animal communities in the hillsides.” Oil and gas exploration and production are also allowed with a conditional use permit under Section 18.52.030. Section 4.11 also discusses potential incompatibility issues with the Preserve’s Resources Management Plan. However, those potential incompatibility issues have been judged to be overridden by the benefits of the restoration activities that would be undertaken as a result of the project that would otherwise not occur. Implementation of the City-approved Project would provide funding for restoration. Also, as described under the Project Description in the Draft EIR: > Solid-waste disposal fees from the Puente Hills Landfill provide the primary funding for the Habitat Authority. This funding will continue through the remaining life of the landfill, currently scheduled to close in November 2013. The Puente Hills Landfill is owned by the County of Los Angeles and is managed by the Sanitation District of the Los Angeles County Solid Waste Management Department. The Oil and Gas Lease between the City of Whittier and Matrix provides for continuing funding for the Habitat Authority with annual administrative fees and mitigation fees upon issuance and acceptance of a CUP. A successful Project would provide a stable source of funding for the Habitat Authority for as long as the wells produce oil and gas. As noted above, without the approval of the Project and the lack of revenue that would occur after 2013, the Preserve is unlikely to have enough funding that would allow continued restoration and preservation of the site in accordance with the goals and objectives of the RMP. As stated in the Draft EIR, “The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans.” The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations that are not described as part of the RMP. Finally, the City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the Proposed Project within the City’s owned land that is part of the Preserve.

	As discussed in response to comment PHLNHPA-24, the EIR preparers conclude that the establishment of new/expanded "core habitat," or the preparation of a new/amended Resource Management Plan, would be beyond the scope of what CEQA requires based upon the EIR biologists' analysis of the proposed project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources.
PHLNHPA-31	Mitigation measure BIO-4e pertains only to initial construction, whereas mitigation measure BIO-4f refers both to initial construction as well as subsequent operations. Mitigation measure BIO-4f is intended to refer to any type of drilling/re-drilling activities, as clarified in the revised measure BIO-4f. The measures state that orange fencing and signage "would remain in place until the nest is either abandoned or the young have fledged." This language is clear, and cannot be interpreted as suggesting the fencing would be taken down arbitrarily after a certain date. Birds abandon nests for many reasons other than because of disturbance by nearby human activities, and in the experience of the EIR preparers, very seldom can human disturbance be determined to be the proximate cause of abandonment. In any case, it would be pointless to maintain fencing and signage as buffers for an abandoned nest. If a new nest active nest is established in the same place, or if a nest is reused, the buffer would be re-established as required by the mitigation measures.
PHLNHPA-32	Mitigation measure BIO-4e has been amended to provide additional clarity. In most cases, birds are aware of ongoing human activities in a given area at the time they establish their nests, and birds that are especially sensitive to those ongoing activities are unlikely to establish their nests in the nearby vicinity. It is relatively rare that a bird completes a nest and lays eggs immediately before a novel human activity starts up that would represent an unforeseen intrusion upon this nesting event. The chance of birds abandoning nests due to nearby human activity must be weighed against the potential that nesting birds would be adversely affected by biologists walking through vegetation searching for nests, and checking on the status of ongoing nests. For example, it is known that Brown-headed Cowbirds key in on the behavior of host species as a means of finding their nests (Banks, A. J., and T. E. Martin. 2001. Host activity and the risk of nest parasitism by Brown-headed Cowbirds. Behavioral Ecology 12:31–40). It is the experience of the EIR biologists that actively nesting birds commonly respond to biologists searching for their nests by scolding and otherwise drawing more attention to themselves and their nest than would otherwise occur, and this behavior may increase the potential for cowbirds to find their nest. Also, large numbers of visits to search for and monitor nests are likely to create trails that terrestrial predators may use, possibly leading them to nest locations. On balance, the EIR biologists disagree with the commenter that it would be beneficial to local avian populations to have a biologist present during "any activity that has the potential to disturb nesting songbirds, bats, or raptors."
PHLNHPA-33	BIO-4-k already states that the "biological monitor shall have the authority to temporarily halt activities if permit requirements and conditions are not being met."
PHLNHPA-34	As indicated in responses to comments PHLNHPA-31 and PHLNHPA-32, mitigation measure BIO-4e and mitigation measure BIO-4f have been reworded to indicate that these measures pertain to both drilling and re-drilling operations. Drilling and re-drilling are generally expected to have minimal impacts on bat populations in the area. Potential adverse effects on the pallid bat's ability to forage close to drilling operations are identified as part of the Project's contribution to cumulatively considerable noise impacts. The Project's contribution to these impacts will be less than significant with implementation of mitigation measure CUMULATIVE BIO-1.

	The Preserve supports hundreds, if not thousands, of eucalyptus and other non-native trees, as well as oaks and other native trees, capable of providing suitable habitat for roosting bats. The EIR biologists are confident that enough suitable roosting locations are available in the local area to absorb the relatively small number of bats that could possibly be displaced by Project implementation.
PHLNHPA-35	The EIR biologists do not regard the removal of limited numbers of trees, mostly eucalyptus and other non-native species, as potentially significant impacts to bat species in the Preserve, even though some of these trees could possibly support roosting bats. The construction, establishment, monitoring, and long-term maintenance of bat boxes could be an appropriate use of City proceeds generated by the proposed project. However, mitigation measures BIO-4g mitigates impacts to bats to a level of less than significant with mitigation. It is relevant to the consideration of any potential long-term effects of Project implementation that replacement trees will be planted in the Preserve under mitigation measure AQ-4. As discussed in response to comment PHLNHPA-3, these plantings will comply with the Restoration Plans for Mitigation and Monitoring Plans found on the Habitat Authority's web page (http://www.habitatauthority.org/devdedmit.shtml). The extraneous words "within each tract map area" have been removed from the last sentence in mitigation measure BIO-4g.
PHLNHPA-36	The existing drilling operation at Sycamore Canyon lacks many of the sound-dampening technologies that would be implemented on the Proposed Project, and sound emanating from the Sycamore Canyon site is believed to generally exceed the standards specified in Chapter 12.08.390 of the County of Los Angeles Code (Exterior Noise Standards), at least during some phases of its operation. For example, the web page of the Open Space Legal Defense Fund (http://www.osldf.org/) has an embedded video entitled, "Matrix Oil Drilling at well site in Sycamore Canyon in Whittier. Listen to how much noise it makes." The video and accompanying audio provide evidence that biological resources in the vicinity of this existing facility at Sycamore Canyon would, in fact, benefit from implementation of additional sound-dampening technologies at that location. Page 11 of the Habitat Authority's comment letter on the first Draft EIR for the Proposed Project, dated December 1, 2010, referred to recent transect data indicating an "absence of bobcat activity" adjacent to the existing oil extraction facility at Sycamore Canyon, and suggesting that edge effects associated with the facility were likely implicated in this finding. The EIR biologists are satisfied that implementation of this measure will result in a reduction in the cumulative impacts of noise upon wildlife in the Whittier Hills. In response to the request for clarification of terms contained in this comment, mitigation measure CUMULATIVE BIO-1 is clarified as follows: The applicant shall ensure, and shall demonstrate to the City of Whittier and Habitat Authority, that the existing Matrix Oil drilling operation in lower Sycamore Canyon, in the Whittier Hills, complies with Chapter 12.08.390 of the County of Los Angeles Code (Exterior Noise Standards). Compliance includes achieving an exterior noise standard of 45 dBA (L50) applicable at the property boundary (i.e., the Preserve's property boundary) of all noise-sensitive areas and residential areas, any time of the day. All Preserve areas shall be regarded as "noise-sensitive areas" for purposes of the County of Los Angeles Code and this mitigation measure. As discussed in response to comment PHLNHPA-24, the EIR biologists conclude that

	the establishment of new/expanded "core habitat" would be beyond the scope of what CEQA requires. As discussed in responses to comments PHLNHPA-20 and PHLNHPA-25, the EIR biologists view removal of recreational pressure on wildlife use of the Service Tunnel during periods of construction and drilling as a viable means of increasing the tunnel's attractiveness as a linkage, thereby helping to avoid any possible increase in wildlife crossing Colima Road at grade farther north. With regard to potentially closing some or all of the Arroyo Pescadero to dogs, or possibly all recreational users, during the Project's construction and drilling phases, we believe the issue warrants ongoing study and evaluation. As discussed in response to PHLNHPA-22, the Project Proponent shall fund a multi-year scientific study that will help to address this and other wildlife-movement issues in the Preserve. If this or another study indicates that the Arroyo Pescadero should be closed to dogs, or all recreational users, the Habitat Authority would be justified in taking this type of management response. We believe it would be premature to make this decision now, before the study begins.
PHLNHPA-37	In addition to the avoidance measure identified in mitigation measure CUMULATIVE BIO-2, the EIR biologists have identified various measures to reduce the severity of potential wildlife movement impacts associated with the proposed Project, and to facilitate wildlife movement through the local area: Minimization of noise from the Proposed Project (mitigation measure BIO-4a) and at the existing Sycamore Canyon oil extraction facility (mitigation measure CUMULATIVE BIO-1); lighting restrictions (mitigation measure BIO-4b, BIO-4i); installation of appropriate native screening vegetation around the western terminus of the Service Tunnel (mitigation measure BIO-4h); closing of the Arroyo San Miguel Trail to recreational use during construction and drilling operations (mitigation measure BIO-4n); provision of signage to limit recreational crepuscular and nocturnal disturbances at the Service Tunnel (mitigation measure BIO-4j); and the funding of a multi-year, scientific study of wildlife movement (mitigation measure CUMULATIVE BIO-3). The EIR biologists evaluated the potential utility of constructing either a wildlife overpass or underpass north of the Service Tunnel, as recommended in this comment. We concluded, however, that the potential adverse effects of opening more of the Arroyo Pescadero watershed to human/recreational use would likely balance or possibly outweigh the potential benefits of providing a second safe route across Colima Road.
PHLNHPA-38	The EIR biologists concur with the commenter that the Project area is already under extreme pressure from surrounding residential and urban areas, and that the cumulative impact of the proposed Project together with existing and planned development would result in impacts to wildlife movement in the Project area that would be significant without mitigation. Response to comment PHLNHPA-37 listed the measures that are being taken to reduce the severity of potential wildlife movement impacts associated with the proposed Project, and to facilitate wildlife movement through the local area. The EIR biologists evaluated the potential utility of constructing either a wildlife overpass or underpass north of the Service Tunnel, as recommended in this comment. We concluded, however, that the potential adverse effects of opening more of the Arroyo Pescadero watershed to human/recreational use would likely balance or possibly outweigh the potential benefits of providing a second safe route across Colima Road. As discussed in response to comment PHLNHPA-24, the EIR biologists conclude that the establishment of new/expanded "core habitat" would be beyond the scope of what CEQA requires.

	As discussed in responses to comments PHLNHPA-20 and PHLNHPA-25, the EIR biologists view removal of recreational pressure on wildlife use of the Service Tunnel during periods of construction and drilling as a viable means of increasing the tunnel's attractiveness as a linkage, thereby helping to avoid any possible increase in wildlife crossing Colima Road at grade farther north. With regard to potentially closing some or all of the Arroyo Pescadero to dogs, or possibly all recreational users, during the Project's construction and drilling phases, we believe the issue warrants ongoing study and evaluation. As discussed in response to PHLNHPA-22, the Project Proponent shall fund a multi-year scientific study that will help to address this and other wildlife-movement issues in the Preserve. If this or another study indicates that the Arroyo Pescadero should be closed to dogs, or all recreational users, the Habitat Authority would be justified in taking this type of management response. We believe it would be premature to make this decision now, before the study begins.
PHLNHPA-39	Contrary to this comment, studies of the effects of night-lighting on bird migration, including those cited by the commenter, have not found that "steady-burning and red lights" are particularly attractive to migrating birds. The greatest dangers are from steady-burning lights of any color (including red). The recommendations of the studies and review cited by the commenter include steady-burning lights be replaced with flashing lights (including red flashing lights). Therefore, while the EIR biologists agree with the commenter that no lighting at all would be preferable to the red flashing light that has been proposed for the top of the drilling rig, specification of a red flashing light in Section 4.6 of the Draft EIR is consistent with current recommendations to minimize adverse effects upon migrating birds. The EIR biologists have determined that the potential effects of providing a flashing red light on top of the drilling rig upon wildlife are adverse, but not potentially significant.
PHLNHPA-40	Mitigation measure N-1 requires relocating the construction parking and staging area farther from the school and residences on Catalina Avenue to an area north of the Ranger Residence or equivalent. This relocation would result in the same acres of disturbance and would remain in non-sensitive habitats; impacts to wildlife movement and corridor issues would be similar to the original configuration. Impacts to any native habitats resulting from relocating the parking and staging area would be mitigated with the same mitigation replacement ratios described in BIO-1 and BIO-2 and would require the same wildlife protection measures described for BIO-4 and would require a pre- and post construction survey to describe the final, full extent of disturbance area to determine habitat loss and replacement. Therefore, this mitigation measure would not result in additional significant impacts, and additional analysis or mitigation is not required. The Aesthetics section (Section 4.6) calls for the use of berms (used in combination with landscaping) so as to reduce aesthetics impacts along the eastern portion of the facilities. The mitigation also requires the preparation of a Landscaping Plan that would include berms, screening, irrigation, and planting protocols. The Plans and vegetation selection would be reviewed, approved, and monitored by the City and the Habitat Authority. Impacts to any native habitats resulting from installing these berms would be mitigated with the same mitigation replacement ratios described in BIO-1 and BIO-2 and would require the same wildlife protection measures described for BIO-4 and would require a pre- and post construction survey to describe the final, full extent of disturbance area to determine habitat loss and replacement. The installation of sound walls around the gas plant would reduce noise impacts associated with gas plant equipment. Since the east side of the gas plant backs up against the existing slope and a 25-foot retaining wall would be installed on this side of the plant, no additional sound wall mitigation was determined to be necessary.
PHLNHPA-41	The Ranger Residence would primarily be impacted during the construction phase of the Project. Noise levels would be elevated during drilling and operations, but mitigation measures would reduce these noise levels to less than the significance

	criteria. During the construction phase, noise due to construction equipment and traffic would impact the Ranger Residence. However, under Municipal Code construction regulations, construction activities performed within the permitted hours would create only less than significant impacts. Drilling activity vibration impacts to the Ranger Residence would be less than significant because the drilling activities would be more than 700 feet from the Ranger Residence, which would reduce the vibration impacts to less than the significance thresholds.
PHLNHPA-42	The General Plan allowable noise levels are based on the categories defined in the General Plan. Since there is not a category for preserves, the parks designation was used. A more stringent standard may be applicable in other jurisdictions, but the City of Whittier does not have a designation for a preserve. Nonetheless, the Draft EIR recognizes the lack of proper designation and proposes a second set of threshold criteria based on increases over baseline levels. These are limited to increases of 5 dBA over the minimum 24-hour average hour, which is in the mid-40s dBA for the Preserve area. Baseline levels were measured at six locations around the Project area.
PHLNHPA-43	The lessons learned from urban drilling activities are related to the level of noise mitigation achievable with existing technologies. Noise programs at the Baldwin Hills Oil Field indicate that noise levels from drilling can be reduced to the low-40s dBA within 750 feet of the drilling operations with noise mitigations. The use of a shredder has been added to the Final EIR for noise during construction. However, as long as construction activities are limited to the hours specified in the Municipal Code, the impact would not be significant.
PHLNHPA-44	The Final EIR has been updated to indicate that the landscaping specified in Section 4.7, Transportation and Circulation, should be planted along the periphery of the Project Site to screen the Project Site from recreational areas and residences.
PHLNHPA-45	Fuel modification is discussed in relation to potential LACoFD Plans and the RMP invasive species plans. The cumulative impacts discussion in Section 4.7, Transportation and Circulation, states that removal of the remaining eucalyptus trees would generate a significant impact. However, additional landscaping under the proposed mitigation would reduce these impacts over time.
PHLNHPA-46	As a clarification, Section 2.0, Project Description, indicates that grading and removing soils would generate 78 round-trip truck trips per day. Three-hundred-twelve passenger car equivalents (78 x 2 x 2) are associated with the truck traffic. The large increase in cut and fill is associated with removing soil from both the lowering of the drilling pad and the excavation of existing areas for items such as the drainage basins, which were not in the previous configuration (see Appendix A). An earlier version of the Project, which placed the drilling pad above the processing area, would have generated almost 87,000 cubic yards of soil export, which is also a considerable increase over the previous project. The soil export truck trips would only be generated during the daytime during the construction phase and would only last for approximately 4 months. Mitigation measure AE-1a recommends using some of the soils onsite, and could use more than 10,000 cubic yards of the soil onsite. Additional berms could reduce the soil export trips further, under the direction of the Habitat Authority.
PHLNHPA-47	Text has been changed in the Final EIR.
PHLNHPA-48	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit. The discussion within Section 4.11 states partially as follows: The Project Site is designated as open space of "high sensitivity" under the City of Whittier General Plan. Although many of the General Plan's open space policies identify the need to preserve and carefully manage such areas, the Plan also calls for a “balance between oil drilling activities and the

	protection of plant and animal communities in the hillsides." Oil and gas exploration and production are also allowed with a conditional use permit under Section 18.52.030. Section 4.11 also discusses potential incompatibility issues with the Preserve's Resources Management Plan. However, those potential incompatibility issues have been judged to be overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Implementation of the City-approved Project would provide funding for restoration. Also, as described under the Project Description in the Draft EIR: Solid-waste disposal fees from the Puente Hills Landfill provide the primary funding for the Habitat Authority. This funding will continue through the remaining life of the landfill, currently scheduled to close in November 2013. The Puente Hills Landfill is owned by the County of Los Angeles and is managed by the Sanitation District of the Los Angeles County Solid Waste Management Department. The Oil and Gas Lease between the City of Whittier and Matrix provides for continuing funding for the Habitat Authority with annual administrative fees and mitigation fees upon issuance and acceptance of a CUP. A successful Project would provide a stable source of funding for the Habitat Authority for as long as the wells produce oil and gas. As noted above, without the approval of the Project and the lack of revenue that would occur after 2013, the Preserve is unlikely to have enough funding that would allow continued restoration and preservation of the site in accordance with the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations that are not described as part of the RMP. Finally, the City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the Proposed Project within the City's owned land that is part of the Preserve.
PHLNHPA-49	As stated in the Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project may be consistent with RMP goals BIO-3 and USE-1. These analyses also apply to RMP objectives BIO-3.1 and BIO-3.7, which are subsets of the RMP goals. RMP Objective VISUAL-1.3, related to protecting the visitor experience from noise impacts, has been included in Draft EIR Section 4.11.5.3 of the Land Use and Policy Consistency Analysis. Recreational impacts from noise would be less than significant by implementing mitigation measures N-1a and N-1b, N-2a through N-2c, and N-4. The decision makers will make findings for policy consistency in their consideration of the Project.
PHLNHPA-50	As stated in Section 4.14.4 of the Draft EIR, the affected trails may be temporarily closed to recreational use for 2-3 months during the road widening and pipeline installation, which would take place during the Design and Construction Phase of the Project. As a result, recreational use of the affected trails would be temporarily impacted. This has been reflected with the addition of mitigation measure REC-2. Mitigation measure BIO-4c requires traffic calming devices on all roads used to access onsite facilities, which would limit traffic to a maximum speed of 10 miles per hour.

	Further, the discussion of impact REC.1 has been modified to include the closure of the Arroyo San Miguel Trail and the related mitigation measure (BIO-4n) that may be implemented to reduce the impact.
PHLNHPA-51	The Project as proposed does not entail vehicle trips through the Arroyo Pescadero Loop Trail and the negative impacts referred to in the comment would not occur. The only use of the Arroyo Pescadero Loop Trail would occur for secondary access for the Fire Department in the event of an emergency. Access through the Arroyo Pescadero Loop Trail as part of the Alternatives discussion contains recreational impacts associated with vehicle trips. Further, mitigation measure REC-1a requires the Applicant to construct and maintain interpretative signage within the Preserve's trails to provide an educational component about the Preserve, drilling activities, mitigation, descriptions of local wildlife, habitats, environmental values of the Puente Hills area, and historic uses.
PHLNHPA-52	The Habitat Authority's support for the Landfill Alternative is acknowledged. The EIR biologists agree that the Landfill Alternative would greatly reduce impacts to biological resources compared to the proposed Project. Section 5 already states that The Landfill alternative would reduce biology impacts since no facilities would be located within the Preserve. Section 6.0 already states that the Landfill Alternative would greatly reduce the direct loss of all habitats (including sensitive species habitat, and sensitive coastal sage scrub and riparian habitats) by placing most of the activities in previously disturbed areas within the Landfill; and would reduce the impacts to wildlife movement along corridors. Considerations of other resource areas that make this alternative less feasible include the significant time-consuming amendments to existing state Landfill permits, which would create land use impacts and whether drilling within the Landfill would be approvable within the constraints of Landfill operations and state and federal regulations.
PHLNHPA-53	This alternative was excluded from consideration since it would also impact recreational and biological areas. The analysis of alternatives identified this alternative as having less impacts to Biological resources compared to the Proposed project. However, this alternative would not achieve the Project objectives since it would allow extraction of less than 50 percent of the crude oil in the reservoirs. Considerations of other resource areas that make this alternative less feasible include the increased aesthetic impacts and being located closer to residences and recreational areas.
PHLNHPA-54	The Habitat Authority's views on the Loop Road Alternative are acknowledged.
PHLNHPA-55	Based on the traffic analysis, traffic could not be reduced to less than significant impacts along Mar Vista Street and at the Catalina Avenue/Mar Vista Street intersection during the construction phase, particularly if large amounts of soils are required to be exported from the Project Site. However, the decision makers could utilize the information in the EIR, and make an overriding consideration to require the use of Catalina Avenue exclusively, even with the significant and unavoidable impacts. Note that, after construction, all vehicles except trucks would utilize Catalina Avenue and only an average of 2 trucks per day would utilize the North Access Road, or up to six average round trips during the operational drilling phase. The Draft EIR identified the use of Catalina Avenue exclusively as having fewer impacts associated with biology since traffic would not pass through the core area of the Preserve and negatively impact wildlife corridor resources. However consideration of significant and unavoidable traffic impacts resulting from exclusive use of Catalina Avenue resulted in this alternative not being carried forth for further analysis.
PHLNHPA-56	While an Alternative with a reduced number of wells is not specifically reviewed as part of this environmental document, there is sufficient information for decision-

	makers to consider a Project with a reduced number of wells. A reduced number of wells alternative was not considered because it was assumed not to meet the objectives of the Project. Impacts are likely to be the same as the proposed Project, but with a reduction in duration of those impacts.
PHLNHPA-57	As stated in the comment, the Project is currently allowed by the City of Whittier General Plan and as such, no precedent is being set if the Project is approved. In addition, the City would have to work out an agreement with the County Parks and Recreation District that would be unique to this Project and unlikely to be duplicated elsewhere. The Draft EIR describes the potential for growth inducing impacts as part of the proposed Project to be limited since the Project would occur within the Habitat Preserve and is proposed to occupy only a limited amount of land to be able to produce oil and gas. Oil and gas production is limited to what is proposed by the Applicant and is intended to be able to recover oil reserves below the 1,290 acres of City owned property within the Preserve. The Applicant has determined that the majority of the oil and gas reserves can be recovered with their proposed Project and no additional projects or surface acreage would be needed in the future to produce the oil and gas. Producing oil and gas within parks or preserves is not unprecedented. As an example, many units of the national park system currently produce energy, including: Alibates Flint Quarries National Monument, Aztec Ruins National Monument, Big Cypress National Preserve, Big Thicket National Preserve, Big South Fork National River and Recreation Area, Cuyahoga Valley National Park, Fort Union Trading Post National Historic Site, Gauley River National Recreation Area, Lake Meredith National Recreation Area, New River Gorge National River, Obed Wild and Scenic River, Padre Island National Seashore, and Tallgrass Prairie National Preserve. In short, allowing oil and gas production within the Puente Hills Native Habitat Preserve is not a unique situation and would not lead to either additional oil and gas development on other parks or preserves that may not be already contemplated, and does not constitute a growth inducing impact. Finally, the decision-makers in considering this Project may decide to include a conservation easement for other areas that are owned by the City to offer additional protection for these areas in the future. However, a conservation easement is not required as part of any mitigation measures proposed in the EIR.
PHLNHPA-58	The comment refers to the idea that Applicant should hire a consultant to administer mitigation monitoring if the Project is approved, but it does not include any specific comment on the Draft EIR. The comment is acknowledged, however, no additional response is required.
PHLNHPA-59	As stated above, the EIR preparers agree that placing conservation easements over City-owned parcels would provide for additional protection to the Preserve. However, a conservation easement is not required as part of any mitigation measures proposed in the EIR.

South Coast Air Quality Management District

SCAQMD-1	Mitigation has been added to the Final EIR, including requirements to obtain offsets, utilize Tier 4 engines for drilling, or electrify part or all of the drilling engines to reduce NOx emissions to less than the thresholds. Also, mitigation in the Final EIR includes limits on flaring and/or simultaneous flaring and drilling operations. The Final EIR also includes specific GHG emissions targets; the Applicant is required to reduce emissions to less than the thresholds with quantified methods submitted to the AQMD. Odor impacts are addressed in more detail in Section 4.1, Air Quality, utilizing the HARP modeling runs and estimates of fugitive emissions and H2S levels.

	Additional analysis of localized impacts has been performed and is included in the Final EIR. ISC modeling has been performed for NO2 and PM impacts. Mitigation measures have been added to require the use of a cleaner flare, as was used in the Warren E&P EIR recently certified by the AQMD, and for the flare to achieve a BACT level of 0.06 lbs/mmbtu.
SCAQMD-2	Mitigation has also been added that requires the use of offsets, Tier 4 engines, or electric engines. However, the use of the Tier 3 engine with a CARB certified level 3 catalyst provides a similar PM emission rate as a tier 4 engine. CARB certified level 3 catalysts are required as part of mitigation measure AQ-5.
SCAQMD-3	Construction activities would produce only regional impacts. According to the lookup tables for localized impacts, onsite emissions would be less than the localized thresholds. The allowable thresholds have been updated based on other comments that indicate that the area for construction is actually closer to 5 acres than the 2 acres in the Draft EIR. If trucks are able to deposit soils at the Landfill, emissions of NOx would be reduced. However, the ability to deposit soils at the Landfill is uncertain at this time according to discussions with David Pelser, Director of the Public Works Department. Therefore, the impacts may exceed the thresholds. However, according to the AQMD comments, requirements for the use of Tier 4 construction equipment would also reduce the NOx emissions. Trucks transporting soils produce 86 pounds per day of NOx, and mitigation of non-truck impacts would not achieve a less than significant emissions level. Only mitigation of the truck impacts, either through reduced travel distance (via the Landfill) or the use of newer trucks, would achieve substantial emissions reduction. However, the availability of new trucks is uncertain; hence the Class I classification. However, as the use of Tier 4 construction equipment engines would reduce the NOx emissions some, it has been added to mitigation measure AQ-1d along with transport of the soils to the Landfill and the use of newer trucks.
SCAQMD-4	The proposed language related to the use of 2010 off-road dump trucks has been added to mitigation measure AQ-1d.
SCAQMD-5	In order to ensure that PM emissions do not produce operational localized impacts, a cleaner flare has been required that would reduce local PM impacts to less than 1 ug/m3 during the worst 24 hour period (see added table quantifying the localized modeling impacts for the mitigated case).
SCAQMD-6	Reporting requirements are included in mitigation measure AQ-4 for the level of GHG emissions annually. Additional requirements have been added requiring that reduction or offsets of GHG be quantified according to applicable protocols and also reported to the City and the AQMD.
SCAQMD-7	Additional odor analysis utilizing the HARP X/Q impact files has been included in the Final EIR. This indicates that emissions from fugitive components would produce odor impacts a few hundred feet from the facility, which would not impact residences. This is due primarily to the low concentration of H2S anticipated to be in the produced gas (4 ppm). If, for example, the H2S levels were 4,000 ppm, odor thresholds would be exceeded at nearby residences and there would be continuous odor impacts without additional mitigation. However, upset conditions could still produce odor impacts and these are addressed with impact AQ-3 and corresponding mitigation measures AQ-3a through AQ-3e.

Appendix M

Organizations' Comments

David Magney Environmental Consulting
P.O. Box 1346, Ojai, California 93024-1346 * E-mail: david@magney.org
805/646-6045 Voice * 805/646-6975 FAX
www.magney.org

5 November 2010

Andrea Gullo
Executive Director
Puente Hills Landfill Native Habitat Preservation Authority
7702 Washington Avenue, Suite C
Whittier, CA 90602

Subject: Comments on Whittier Main Oil Field Development Project EIR

Dear Andrea:

Per your request, David Magney Environmental Consulting (DMEC) is providing these comments on the City of Whittier's Main Oil Field Development Project Draft Environmental Impact Report (DEIR), focusing on project related impacts to biological resources.

DMEC has been in business since July 1997, specializing in biological resource assessments, CEQA/NEPA, wetlands permitting and mitigation planning, and vegetation mapping. DMEC is owned by Mr. David L. Magney.

David L. Magney, President of DMEC, is a biologist and geographer, specializing in botanical resources and wetlands. Mr. Magney has been consulting full time since 1985, working for Dames & Moore, Jones & Stokes Associates, Fugro West, Inc., and ENSR before establishing DMEC. Mr. Magney is considered an expert on the flora of Ventura and Santa Barbara Counties, and has been "certified" as a qualified biologist by Ventura County Planning Division, Los Angeles County Regional Planning (SEATAC), and Santa Barbara County. He serves on the Los Angeles County Environmental Review Board, and is the City of Rancho Palos Verdes' Consulting Biologist, and has served as an Expert Witness as a botanist for the U.S. Department of Justice. Mr. Magney's CV is available at www.magney.org. Mr. Magney has worked extensively in Los Angeles County.

David M. Brown, Biologist/Zoologist, has over 10 years experience in biological studies and environmental consulting. He has experience conducting botanical surveys in central and southern California. Mr. Brown was a team member conducting floristic surveys of 62,000 acres of the Tejon Ranch in Kern and Los Angeles Counties and on The Wildlands Conservancy's Wind Wolves Preserve in southern Kern County. Mr. Brown has mapped and described natural vegetation, assessing project-related impacts to natural habitats, and mapped the distributions and occurrences of special-status plant species. He has conducted biological surveys in Kern, Los Angeles, Sacramento, and Ventura Counties for a variety of projects and participated in surveys for the Yellow-billed Cuckoo along the Santa Clara River in Ventura County. Mr. Brown has experience in preparing Initial Study Biological Assessments, biological constraint analyses, and revegetation plans, and has critically reviewed CEQA assessment documents for several projects in Ventura, Santa Barbara, and Los Angeles Counties.

Prior to joining DMEC, Mr. Brown has worked as a field biologist for Sugnet & Associates, conducting wetland delineations in vernal pool and palustrine wetland habitats, and assisted with designing and constructing wetland reserves. Mr. Brown has also taught and been a lecturer in biology at UCLA, and served as an internship coordinator for the UCLA Center for Community Learning. He also served as an

environmental policy intern at Environment Now in Santa Monica. He earned a Bachelor of Science degree in Zoology, University of California, Davis in 1993, and a Master of Science degree in Ecology, UC Davis in 1997.

DMEC's review of the biological resources section of the DEIR, and associated documents, has identified several issues and biological resources that were not adequately evaluated or considered by the City. This letter provides some background information about the California Environmental Quality Act (CEQA) and biological resources of the Puente Hills Landfill Native Habitat Preserve (Preserve) and Los Angeles Region that are directly relevant to the issues DMEC has identified as inadequate to satisfy CEQA regulations. Below is a table of contents of the contents of this letter.

Pertinent CEQA Concepts and Policies 3
General Concepts 3
CEQA Policies 4
CEQA Definitions of Special-status Species 4
CEQA § 21001. Additional Legislative Intent 5
Specific Aspects of the Preserve that Must be Considered 6
Importance of the Preserve for Conserving Viable Wildlife Populations in the Puente Hills 6
Importance of the Preserve for Conserving Viable Wildlife Populations in the Los Angeles Region 7
Importance of the Preserve for Conserving Viable Stands of Coastal Sage Scrub Habitat in the Puente Hills Region 7
Specific Areas of DEIR Deficiency Related to Biological Resources of the Preserve 8
Biodiversity is Not Adequately Assessed in the DEIR 8
Nonvascular Plants Not Surveyed 9
Bryophytes Not Assessed 9
Lichens Not Assessed 10
Invertebrates Not Surveyed or Assessed 11
Butterfly Species of Potential Conservation Concern on the Preserve 12
Terrestrial Mollusk Species of Potential Conservation Concern on the Preserve 13
Special-status Mollusks Not Assessed 13
Quantifying biodiversity on the Preserve 14
Mitigation Measures Are Inadequate 15
Special-Status Plant Species Assessment and Mitigation in DEIR 15
Mitigation Measures BIO-1 and BIO-2 16
Mitigation Measure BIO-3 17
Mitigation Measure BIO-4 17
A. Inadequate Consideration of Possible Mitigation Measures to Avoid Declaration of "Significant and Unavoidable Impacts to Wildlife Movement" 17
B. Inadequate Assessment and Consideration of Mitigation Measures for Vibration Impacts of Project on Wildlife Movement and Reproduction 18
Landfill Road Alternative Analysis 18
Effect of Landfill Road on Core Habitat in the Preserve 19
A. Disruption of Core Habitat as Wildlife Nursery 19
B. Fragmentation of Core Habitat 19
C. Potential Disruption of Bird Breeding by Noise Generated by Use of the Landfill Road 20
DMEC Proposed Project Alternative 21

PERTINENT CEQA CONCEPTS AND POLICIES

Selected sections of CEQA are quoted below to support DMEC's contentions regarding specific deficiencies in the DEIR. Specific parts are emphasized in **bold typeface** to illustrate clearly the requirements of CEQA. As illustrated below, CEQA is clear in its intent to protect the environment over the long term and to make the public fully aware of the changes to the environment that a project would have. CEQA requires that all significant impacts to the environment either be avoided, and if avoidance is not possible, that the impacts be minimized and mitigated. Even when an impact cannot be fully mitigated, the decisionmakers do not have the authority to simply state that mitigation is infeasible, but must require mitigation to the extent feasible and make findings of overriding consideration for unmitigatable impacts to permit projects that it believes are more important regardless of the damage to the environment.

General Concepts

"Section 15002. General Concepts.

(a) Basic Purposes of CEQA. The basic purposes of CEQA are to:

(1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.

(2) Identify the ways that environmental damage can be avoided or significantly reduced.

(3) **Prevent significant, avoidable damage to the environment** by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

(4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

(g) Significant Effect on the Environment. A significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. (See: Section 15382.) Further, when an EIR identifies a significant effect, the government agency approving the project must make findings on whether the adverse environmental effects have been substantially reduced or if not, why not. (See: Section 15091.)

(h) Methods for Protecting the Environment. CEQA requires more than merely preparing environmental documents. The EIR by itself does not control the way in which a project can be built or carried out. Rather, when an EIR shows that a project would cause substantial adverse changes in the environment, the governmental agency must respond to the information by one or more of the following methods:

(1) Changing a proposed project

(2) **Imposing conditions on the approval** of the project;

(3) Adopting plans or ordinances to control a broader class of projects to avoid the adverse changes;

(4) **Choosing an alternative** way of meeting the same need;

(5) Disapproving the project;

(6) Finding that changing or altering the project is not feasible;

(7) Finding that the unavoidable significant environmental damage is acceptable as provided in Section 15093."

CEQA Policies

Section 15003, Policies, states, "In addition to the policies declared by the Legislature concerning environmental protection and administration of CEQA in Sections 21000, 21001, 21002, and 21002.1 of the Public Resources Code, the courts of this state have declared the following policies to be implicit in CEQA:

(a) The EIR requirement is the heart of CEQA. (*County of Inyo v. Yorty*, 32 Cal. App. 3d 795.)

(b) The EIR serves not only to **protect the environment** but also to demonstrate to the public that it is being protected. (*County of Inyo v. Yorty*, 32 Cal. App. 3d 795.)

(c) The EIR is to **inform** other governmental agencies and the public generally of the **environmental impact** of a proposed project. (*No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68.)

(d) The EIR is to demonstrate to an apprehensive citizenry that the **agency has**, in fact, **analyzed** and considered the **ecological implications** of its action. (*People ex rel. Department of Public Works v. Bosio*, 47 Cal. App. 3d 495.)

(e) The EIR process will enable the public to determine the environmental and economic values of their elected and appointed officials thus allowing for appropriate action come election day should a majority of the voters disagree. (*People v. County of Kern*, 39 Cal. App. 3d 830.)

(f) **CEQA was intended** to be interpreted in such manner as to **afford the fullest possible protection to the environment** within the reasonable scope of the statutory language. (*Friends of Mammoth v. Board of Supervisors*, 8 Cal. 3d 247.)

(g) The **purpose of CEQA is** not to generate paper, but **to compel government** at all levels **to make decisions with environmental consequences in mind**. (*Bozung v. LAFCO* (1975) 13 Cal.3d 263)

(h) The lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect. (*Citizens Assoc. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151)

(i) CEQA does not require technical perfection in an EIR, but rather adequacy, **completeness**, and a good-faith effort at full disclosure. A court does not pass upon the correctness of an EIR's environmental conclusions, but only determines if the EIR is sufficient as an informational document. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692)

(j) CEQA requires that decisions be informed and balanced. It must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development or advancement. (*Laurel Heights Improvement Assoc. v. Regents of U.C.* (1993) 6 Cal.4th 1112 and *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553)"

CEQA Definitions of Special-status Species

Below is the part of the CEQA Guidelines that define special-status species that should be considered in a project impact assessment. Those parts in **bold typeface** are added for emphasis and related directly to the reasons why parts of the DEIR are inadequate.

"15380. ENDANGERED, RARE OR THREATENED SPECIES

(a) "Species" as used in this section means a species or subspecies of animal or plant or a variety of plant.

(b) A species of animal or plant is:

(1) "Endangered" when its **survival and reproduction in the wild are in immediate jeopardy** from one or more causes, including **loss of habitat, change in habitat**, overexploitation, predation, competition, disease, or other factors; or

(2) "Rare" when either:

(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

(B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

(c) A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in:

(1) Sections 670.2 or 670.5, Title 14, California Code of Regulations; or

(2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

(d) A **species** not included in any listing identified in subdivision (c) **shall** nevertheless **be considered** to be **endangered, rare or threatened**, **if the species** can be shown to m**eet the criteria in subdivision (b)**.

(e) This definition shall not include any species of the Class Insecta which is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by:

(1) The Director of Food and Agriculture with regard to economic pests; or

(2) The Director of Health Services with regard to health risks."

CEQA § 21001. Additional Legislative Intent

CEQA § 21001, Additional Legislative Intent, states, "The Legislature further finds and declares that it is the policy of the state to:

(a) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.

(b) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.

(c) Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history."

The assessment of a project's environmental impacts under CEQA must take these intentions into consideration, regardless of whether they are further explained or described in the CEQA Guidelines.

SPECIFIC ASPECTS OF THE PRESERVE THAT MUST BE CONSIDERED

Below are several important functions or aspects of the Preserve that must be considered when making any project or management decision affecting the Preserve or parts of the Preserve. Since the project site is located within the second largest parcel within the Preserve and has been considered such an important part of the integrity of the Preserve, the City's parcel must be viewed in context with the whole Preserve. The particular functions of the Preserve that the City's parcel is important for includes its importance for conserving viable wildlife populations in the Puente Hills, within the Los Angeles region, and conserving viable stands of coastal sage scrub habitats in the region, which are known to support special-status species. Each of these functions are described below.

Importance of the Preserve for Conserving Viable Wildlife Populations in the Puente Hills

The Preserve is ecologically important for conserving viable populations of wildlife in the Puente Hills region because it provides core habitat for many species. As defined in the Resource Management Plan for the Preserve (p. 72), core habitat is an area that can sustain a population of plants or animals by providing food, shelter, and a place to safely reproduce. By providing core habitat, the Preserve serves as a "wildlife nursery" for wildlife species like Mule Deer and Bobcat by allowing them to reproduce away from ecological edge effects like noise, unnatural lighting, and disturbance by humans and domestic animals. Research on Bobcats (Riley 2006[1]) demonstrates that they avoid areas of human disturbance. Without the ecological function of core habitat in the Preserve buffering them from human disturbance, it is possible that Bobcats and other wildlife species sensitive to human disturbance would not be able to reproduce in the Puente Hills region. In this event, viable populations of these species would disappear from the Puente Hills region. The core habitat of the Preserve has the highest known population of Bobcats in the Preserve area (Haas and Crooks 1999[2], Lucas 2010[3]), providing evidence that this area is an important habitat for supporting the viability of this species in the Puente Hills region. DMEC-1

The core habitat of the Preserve provides habitat for many species of invertebrates that may also disappear without the ecological benefits that the core habitat provides (i.e. adequate food and shelter, buffer from human disturbance/presence). For example, some groups of invertebrates, such as the Mygalomorphae (trapdoor spiders and their kin), have very long life spans (20-30 years) and specific habitat requirements (Bond et al. 2006[4]). Disturbances to these habitats may result in local population extinctions, which in turn may lead to regional extirpation (Bond et al. 2006). Since there are many endemic Mygalomorph species in the Los Angeles Basin, and most of the historic habitats have already been destroyed by urban and industrial development, the remaining habitats and populations are vital to the continued existence of local endemic Mygalomorph species. Bond et al. (2006) point to two species of *Apomastus* that are threatened with extinction by habitat disturbance and loss. The core habitat of the Preserve is one of the last areas in the region where these species likely persist. Similarly, the core habitat of the Preserve likely provides essential

[1] Riley, S.P.D. 2006. Spatial Ecology of Bobcats and Gray Foxes in Urban and Rural Zones of a National Park. *Journal of Wildlife Management* 70(5): 1425-1435.

[2] Haas, C.D., and K. Crooks. 1999. Carnivore abundance and distribution throughout the Puente/Chino Hills. Final Report. Prepared for The Mountains Recreation and Conservation Authority and State of California Department of Transportation.

[3] Shanon Lucas, Ecologist, Puente Hills Native Habitat Authority, 2010, unpublished data.

[4] Bond, J.E., D.A. Beamer, T. Lamb, and M. Hedin. 2006. Combining Genetic and Geospatial Analyses to Infer Population Extinction in Mygalomorph Spides Endemic to the Los Angeles Region. June. *Animal Conservation* 9:145-157.

habitat for the persistence of several native land snails (Magney 2009[5]) and butterfly species (Resource Management Plan 2007, Mattoni 1990[6]).

Importance of the Preserve for Conserving Viable Wildlife Populations in the Los Angeles Region

The Preserve plays an important ecological role in preserving viable wildlife populations in the larger region surrounding the Puente Hills. The Resource Management Plan (2007) notes (Page 9, first paragraph): "The Preserve is an integral part of the Puente-Chino Hills Wildlife Corridor, an unbroken zone of natural habitat extending nearly 31 miles from the Cleveland National Forest in Orange County to the west end of the Puente Hills above Whittier Narrows. …Biologically, this area preserves a microcosm of the California Floristic Province, an identified biodiversity hot spot in North America and a genetic reserve for the continent. As a result, the Preserve is regionally and globally significant as a prime example of this unique habitat web, yet it occurs in an area that is almost completely surrounded by existing development, with the attendant human influences. Remaining corridors of undeveloped land within the Puente-Chino Hills provide a rare opportunity to preserve a functional ecosystem. This wildlife corridor provides food, cover, breeding grounds, refugia in the event of a large disturbance, contributes to species diversity, dispersal routes for juveniles, home ranges, and the transfer of genetic material, which help maintain healthy populations. Corridors are important in sustaining populations of both animals and plants. The Preserve consists of the western portion of the Puente Hills, comprising large areas of important habitat and wildlife resources." DMEC-2

The Preserve specifically contains one of the most critical road crossing structures for wildlife in the Puente-Chino Wildlife Corridor, the Colima Service Tunnel (used by Bobcat, Mule Deer, Coyote, and other species to cross under Colima Road between San Miguel Canyon and the Whittier Hills) (Conservation Biology Institute 2005[7]).

Importance of the Preserve for Conserving Viable Stands of Coastal Sage Scrub Habitat in the Puente Hills Region

Coastal Scrub in Los Angeles County is considered to be a "community at risk" due to the cumulative loss of approximately 90% of this habitat type across its range in California (Davis et al. 1995[8]), similar in magnitude to the cumulative 95% loss of California's wetlands. Research in Coastal Scrub ecosystems has demonstrated that isolated fragments of less than 1 km^2 (10-100 ha) will lose their native vertebrate species within a few decades (Fleishmann and Murphy 1993[9]). Alberts et al. (1993[10]) showed that fragmentation of

[5] Magney, D.L. 2009. Terrestrial Snails of Los Angeles County. 20 August 2009. David Magney Environmental Consulting, Ojai, California. Published through the Sespe Institute (www.sespeinstitute.com)

[6] Mattoni, Rudi. 1990. Butterflies of Greater Los Angeles. The Center for the Conservation of Biodiversity/Lepidoptera Research Foundation, Inc. Beverly Hills, California.

[7] Conservation Biology Institute. 2005. Maintaining Ecological Connectivity Across the "Missing Middle" of the Puente-Chino Hills Wildlife Corridor. July. Corvalis, Oregon.

[8] Davis, F.W., P.A. Stine, D.M. Stoms, M.I. Borchert, and A.D. Hollander. 1995. Gap Analysis of the Actual Vegetation of California: 1. The Southwestern Region. *Madroño* 42(1):40-78.

[9] Fleishmann, D., and D. D. Murphy. 1993. A review of the biology of the coastal sage scrub. Stanford, CA: Center for Conservation Biology, Department of Biological Sciences, Stanford University. Unpublished report, May 10 update

Coastal Scrub into small patches leads to disruption of the ecosystem and eventual elimination of many native species. Approximately one hundred (100) special-status plant and animal species are obligately or facultatively dependent on Coastal Scrub habitat (O'Leary et al. 1994[11]). DMEC-3

The Preserve protects intact stands of coastal sage scrub and thus many of the species dependent on this community, including the Coastal California Gnatcatcher. The Puente Hills has been designated as Critical Habitat for the Coastal California Gnatcatcher (Federal Register 72(243):72041), which states, "Habitat within this unit is being designated because it was occupied at the time of listing, is currently occupied, and contains all of the features essential to the conservation of the coastal California gnatcatcher (PCEs 1 and 2 [primary constituent elements]). Additionally, this unit [Unit 9] provides for connectivity and genetic interchange among core populations and contains large blocks of high-quality habitat capable of supporting persistent populations of coastal California gnatcatchers. The PCEs contained within this unit may require special management considerations or protection to minimize impacts associated with habitat type conversion and degradation occurring in conjunction with urban and agricultural development." Unit 9 includes the Puente Hills.

SPECIFIC AREAS OF DEIR DEFICIENCY RELATED TO BIOLOGICAL RESOURCES OF THE PRESERVE

The sections below identify specific biological resources known or expected to occur on the project site that were not identified or adequately assessed in the DEIR.

Biodiversity is Not Adequately Assessed in the DEIR

Dwyer and Murphy (1995[12]) note that CEQA requires the state to "preserve for future generations representatives of all plant and animal communities". They also note that specific language defining rare and endangered plants and animals exists in CEQA (Section 15380), and that "animals or plants that are even suspected of being rare or at risk must be considered in a CEQA Environmental Impact Report". A reasonable interpretation of this CEQA requirement is that one of the objectives of CEQA, in regards to biological resources, is to protect biodiversity. This general objective can be overwhelming and difficult to quantify, and has often been ignored, as in the case with the Whittier Oil Main Project DEIR. The loss of local biodiversity is "exceedingly important" from an ecological and evolutionary perspective (Bond et al. 2006[13]). This is because population extinction [including local extinctions] disrupts fundamental evolutionary and evolutionary processes, which impacts future potential for evolutionary response and change. DMEC-4

[10] Alberts, A.C., A.D. Richman, D. Tran, R. Sauajot, C. McCalvin, and D.T. Bolger. 1993. Effects of Habitat Fragmentation on Populations of Native and Exotic Plants in Southern California Coastal Scrub. Pages 103- 110 *in* J.E. Keeley, editor. *Proceedings of the Symposium on the Interface Between Ecology and Land Development in California*. Southern California Academy of Sciences, Los Angeles, California.

[11] O'Leary, J.F.; S.A. Desimone, and D.D. Murphy et al. 1994. Bibliographies on Coastal Sage Scrub and Related Malacophyllous Shrublands of Other Mediterranean Type Climates. *California Wildlife Conservation Bulletin* No. 10.

[12] Dwyer, L.E., and D.D. Murphy. 1995. Fulfilling the Promise: Reconsidering and Reforming the California Endangered Species Act. *Natural Resources Journal* 35:735-770

[13] Bond, J.E., D.A. Beamer, T. Lamb, and M. Hedin. 2006. Combining Genetic and Geospatial Analyses to Infer Population Extinction in Mygalomorph Spides Endemic to the Los Angeles Region. June. *Animal Conservation* 9:145-157.

For example, some groups of invertebrates, such as the Mygalomorphae (trapdoor spiders and their kin), have very long life spans (compared to many invertebrate species), with most species having very specific habitat requirements (Bond et al. 2006). Disturbances to these habitats may result in local population extinctions, which in turn may lead to regional extirpation/extinction. Since there are many endemic Mygalomorph species in the Los Angeles Basin, and most of the historic habitats have already been destroyed by urban and industrial development, the remaining habitats and populations are vital to the continued existence of local endemic Mygalomorph species. Bond et al. (2006) point to two species of *Apomastus* that are threatened with extinction by habitat disturbance and loss.

The DEIR assesses project impacts to vascular plants and vertebrate animals; however, the City has not done any assessments of non-vascular plants or invertebrate animals. These groups are very important components of biodiversity and should be assessed as part of the CEQA review. Comments on specific groups that should be assessed are discussed below.

Nonvascular Plants Not Surveyed

Nonvascular plants, including bryophytes (mosses, liverworts, and hornworts) and lichens are important components of California's biodiversity, even though these taxonomic groups of plants are small in size. Several species of nonvascular plants are considered rare. The project assessment should have considered the effects it would have on nonvascular plants.

Bryophytes Not Assessed

While the bryophyte flora of Los Angeles County is not well known, significant efforts have been made to document the bryophyte flora for portions of the County, such as for the Santa Monica Mountains (Sagar & Wilson 2007[14]). The moss flora of California was recently published (Malcolm et al. 2009[15]), which documents all the moss taxa known to occur in the state at the time of that publication.

A preliminary checklist of bryophytes known or likely to occur in Los Angeles County has been published by the Sespe Institute (Magney and Huff 2010[16]). This checklist includes 207 mosses, liverworts, and hornworts that are known or likely to occur in Los Angeles County. It also indicates taxa that are rare in the county.

It does not appear that any effort was made to assess the project impacts on the bryophyte flora. No mention is made anywhere in the DEIR or technical appendices of either literature or field surveys to assess their (bryophytes) baseline status on the property. With no baseline status assessed then no impacts of the project on the non-vascular plant flora is possible and this significant aspect of the biota is completely ignored. DMEC-5

The CNDDB tracks 29 bryophyte taxa (CNDDB 2010[17]), up from 28 in 2004[18], with more species almost certainly to be added in the near future as more data are submitted. DMEC recently found a potentially

[14] Sagar, T., and P. Wilson. 2007. Bryophytes of the Santa Monica Mountains. In *Flora and Ecology of the Santa Monica Mountains*, edited by D.A. Knapp. Southern California Botanists, Fullerton, California.

[15] Malcolm, B., N. Malcolm, J. Shevock, and D. Norris. *California Mosses*. Micro-Optics Press, Nelson, New Zealand.

[16] Magney, D.L., and C.L. Huff. Preliminary Checklist of Los Angeles County Bryophytes. 16 March 2010. Sespe Institute, Inc., Ojai, California. http://www.sespeinstitute.com.

[17] California Natural Diversity Database (CNDDB). 2010. Special Plants, Bryophytes, and Lichens List. July. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPPlants.pdf.

undescribed species of *Syntrichia* moss in Ventura County (T. Hallingbäck pers. comm.[19]), and there are new records of at least five moss species in the Santa Monica Mountains not previously known in the Southwest (floristic) Region of California (Wishner 2008[20], 2009[21]). These are examples of why it is necessary to conduct surveys for bryophytes as part of the CEQA environmental review process. It is possible that one or more species of rare bryophytes occur on the Puente Hills Preserve and impacts to them may be considered significant. Lacking ANY surveys for bryophytes precludes any ability to perform an adequate impact assessment.

The DEIR is inadequate in that it failed to assess project-related impacts to the bryophyte flora or special-status bryophytes that have potential to occur onsite.

Lichens Not Assessed

There is no evidence that any effort was made to assess the project impacts on the lichen flora. No mention is made of either literature or field surveys to assess their baseline status on the property. With no baseline status assessed then no impacts of the project on the non-vascular plant flora is possible and this significant aspect of the biota is completely ignored.

The CNDDB tracks nine (9) lichen taxa (CNDDB 2010[22]), up from six (6) in 2004[23], with more species almost certainly to be added in the near future as more data are submitted based on recent research on California lichens (Magney 1999[24], Knudsen 2005a[25], Knudsen 2005b[26], Knudsen & Magney 2006[27], Knudsen & La Doux 2006[28], Knudsen 2008a[29], Knudsen 2008b[30], and Kocourková & Knudsen 2008[31]). DMEC-6

[18] California Natural Diversity Database (CNDDB). 2004. Special Vascular Plants, Bryophytes, and Lichens List. September. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

[19] Hallingbäck, Tomas. Bryologist, Swedish University of Agricultural Sciences, ArtDatabanken, P. O. Box 7007, SE-750 07 Uppsala, SWEDEN, email: tomas.hallingback@artdata.slu.se, 22 May 2009 regarding identity of *Syntrichia* moss found at Mandalay Beach, Oxnard, California.

[20] Wishner, C. 2008. Bryophyte Inventory – Ash-Hidden Valley. 23 July 2008. Prepared for David Magney Environmental Consulting, Ojai, California. 12 pages. Chicago Park, California.

[21] Wishner, C. 2009. Bryophyte Inventory: Plot Plan RPPT 2008-00190, APN 4448-018-018, Tuna Canyon Road, Topanga (Dix Canyon), Santa Monica Mountains, County of Los Angeles, California. Chicago Park, California. Prepared for: Will Wild, Caballero Ranch Homes, Mission Hills, California.

[22] California Natural Diversity Database (CNDDB). 2010. Special Plants, Bryophytes, and Lichens List. July. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California. http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPPlants.pdf.

[23] California Natural Diversity Database (CNDDB). 2004. Special Vascular Plants, Bryophytes, and Lichens List. September. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

[24] Magney, D.L. 1999. Preliminary List of Rare California Lichens. *California Lichen Society Bulletin* 6(2):22-27. See http://128.32.109.44/red.html or http://ucjeps.berkeley.edu/rlmoe/cals6_2.html.

[25] Knudsen, Kerry. 2005a. Lichens of the Santa Monica Mountains, Part One. *Opuscula Philolichenum* 2:27-36. http://clade.acnatsci.org/lendemer/paper6.pdf

[26] Knudsen, Kerry. 2005b. Biodiversity of Lichens at Palomar Mountain State Park, California. 11 July 2005. Herbarium, University of California, Riverside. Prepared for California Department of Parks and Recreation, Sacramento, California.

[27] Knudsen, K., and D.L. Magney. 2006. Rare Lichen Habitats and Rare Lichen Species of Ventura County, California. January 2006. *Opuscula Philolichenum* 3:49-52.

[28] Knudsen, Kerry, and Tasha La Doux. 2006. Lichen Flora of the Southwestern Mojave Desert: Key's Ranch, Joshua Tree National Park, San Bernardino County, California, USA. *Evansia* 22(3):103-109.

[29] Knudsen, Kerry. 2008a. Biodiversity of Lichens and Lichenicolous Fungi at Cabrillo National Monument. June 2008. Herbarium, University of California, Riverside. Prepared for U.S. Dept. of Interior, National Park Service, San Diego, California.

DMEC recently found a potentially undescribed species of *Placopyrenium* lichen in Ventura County (Kerry Knudsen pers. comm.[32]). Knudsen recorded at least 63 lichen species in the Santa Monica Mountains, some of which were not previously known in the Southwest (floristic) Region of California (Knudsen 2005a). These are examples of why it is necessary to conduct surveys for lichens at the project site as part of the CEQA environmental review process. It is quite possible that one or more species of rare lichen occur on the Preserve and impacts to them may be considered significant. Lacking ANY surveys for lichens precludes any ability to perform an adequate impact assessment.

The DEIR is inadequate in that it failed to assess project-related impacts to special-status lichens that have potential to occur onsite.

Invertebrates Not Surveyed or Assessed

Invertebrates are the largest group of animal (wildlife) species in the world, including California. There are more insects (a subset of invertebrates) than any other group of animals, and invertebrates represent a large component of the biodiversity of the project site.

Pages 4.2-1 through 4.2-3 of the DEIR list the wildlife and plant surveys that were conducted on the preserve between 1999 and 2010. There do not appear to have been any surveys of potential special-status invertebrate species performed as part of the CEQA review process as there is no survey data on the any invertebrate species within the DEIR.

There are at least two invertebrate groups, butterflies and terrestrial mollusks, which potentially have species of special conservation concern present on the Preserve that could be impacted by the project. The significance of project impacts on the persistence of these species should be assessed as part of the CEQA assessment. That assessment has not occurred as part of the current DEIR and should be required to complete the impact assessment of the proposed project on invertebrates.

Two species of invertebrates are discussed below as specific examples.

DMEC-7

Meloe ajax, a rare blister beetle from chaparral in southwestern Riverside County (Pinto 1998[33]) is just one example of the insect biodiversity of the Los Angeles region, where new species are discovered. It is entirely possible that one or more undescribed species of invertebrates, in particular, insects, occur in the Puente Hills.

Apomastus kristenae, a species of trapdoor spider, is known from the Puente Hills. Due to the isolation of local populations and the Mygalomorph's reproductive traits, local population extirpations will result in local genotype extinctions (Bond et al. 2006[34]). Therefore, it is imperative that any populations of

[30] Knudsen, Kerry. 2008b. Biodiversity of Lichens on San Miguel Island. Herbarium, University of California, Riverside. Prepared for U.S. Dept. of Interior, National Park Service, Ventura, California.

[31] Kocourková, Jana, and Kerry Knudsen. 2008. Four New Lichenicolous Fungi from North America. *Evansia* 25(2):62-64.

[32] Knudsen, Kerry. Lichenologist, Curator of Lichen Herbarium, University of California at Riverside. Emails dated 31 May and 10 June 2008, and 12 March and 11 August 2009 regarding rare lichens, including *Placopyrenium* sp. nova found on the Ash property in Hidden Valley, and *Placocarpus americanus* (new species) found in the Conejo Valley in the Santa Monica Mountains.

[33] Pinto, John D. 1998. A New *Meloe* Linnaeus (Coleoptera: Meloidae, Meloinae) from Southern California Chaparral: A Rare and Endangered Blister Beetle or Simply Secretive? *The Coleopterists Bulletin* 52(4):378-385.

[34] Bond, J.E., D.A. Beamer, T. Lamb, and M. Hedin. 2006. Combining Genetic and Geospatial Analyses to Infer Population Extinction in Mygalomorph Spides Endemic to the Los Angeles Region. June. *Animal Conservation* 9:145-157.

Apomastus kristenae on or near the project site be located and measures to avoid negative impacts to them must be implemented to protect this, and other rare species of invertebrates.

Butterfly Species of Potential Conservation Concern on the Preserve

The populations of several species of butterflies have declined in numbers in the Greater Los Angeles region (defined as the coastal plain and low mountains of Los Angeles County) and disappeared from extensive parts of their former range (Mattoni 1990[35]). The Resource Management Plan (RMP) of the Habitat Authority (2007) lists several butterfly species observed or potentially occurring on the Preserve (RMP Appendix, Pages 150-151). There are four (4) butterfly species observed or potentially occurring on the preserve identified by Mattoni (1990) as being in population decline and potentially in need of conservation. These species and their food/host plants are:

Butterfly Species	**Food/Host Plant**
Hanford's Sulfur (*Colias alexandra hanfordii*) [observed on Preserve; not identified to subspecies in RMP, assumed to potentially be subspecies *hanfordii* based on geography]	Rattlepod/Milkvetch/Locoweed (*Astragalus* species). 3 species present on Preserve.
California Ringlet (*Coenonympha tullia california*) [potentially occurs on Preserve; not identified to subspecies in RMP, assumed to be subspecies *california* based on geography]	Native bunch grasses (*Achnatherum, Elymus/Leymus, Melica, Nassella*). 5 species present on Preserve.
Monarch (*Danaus plexippus*) [observed on Preserve]	Milkweeds (*Asclepias* species). 4 species present on Preserve.
Lorquin's Admiral (*Liminitis lorquini lorquini*) [observed on Preserve; not identified to subspecies in RMP, assumed to potentially be subspecies *lorquini* based on geography]	Willows (*Salix* species). 3 species present on Preserve.

DMEC-8

The population status of each of these species is defined in Mattoni (1990) as "declining". Mattoni observes that there is a need to gather accurate data on these species in the hope that the decline of these species can be mitigated.

No butterfly surveys were conducted for the Whittier Oil Project DEIR. Butterflies are important indicator species for ecosystem function of the preserve and the project impacts on these declining butterfly species should be assessed. Winter concentrations of the Monarch Butterfly are considered to be a California Special Animal, tracked by CNDDB (2009[36]). The RMP lists the presence of winter concentrations of Monarch Butterflies as unknown (RMP Appendix page 180). Surveys should be conducted for the potential presence of winter concentrations of the Monarch Butterfly.

A practical method for assessing project impacts on the butterfly species of concern is to determine whether any patches of their food/host plants will be affected by the project. If a significant portion of the species' food plant onsite has project impacts (e.g. grading, alteration of soil), then appropriate mitigation (e.g. plant restoration) can be implemented.

[35] Mattoni, Rudi. 1990. Butterflies of Greater Los Angeles. The Center for the Conservation of Biodiversity/Lepidoptera Research Foundation, Inc. Beverly Hills, California.

[36] California Natural Diversity Database (CNDDB). 2009. Special Animals. March. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

Terrestrial Mollusk Species of Potential Conservation Concern on the Preserve

There have not been any surveys focused on terrestrial mollusks even though California Department of Fish and Game's (CDFG) Natural Diversity Database (CNDDB) lists 56 mollusk (Gastropoda) species as sensitive species (CNDDB 2004[37]) and up to 104 mollusk taxa by early 2006 (CNDDB 2006[38]). This number remains approximately the same for the 2009 version of CNDDB's list (CNDDB 2009[39]).

SPECIAL-STATUS MOLLUSKS NOT ASSESSED

The native terrestrial mollusks known to occur in Los Angeles County (excluding those occurring only on Santa Catalina and San Clemente Islands) include:

- ***Anadenulus cockerelli****
- *Catinella rehderi*
- *Catinella vermeta*
- ***Cochlicopa lubrica***
- ***Deroceras monentolophus****
- ***Glyptostoma gabrielense****
- ***Haplotrema caelatum****
- *Hawaiia minuscula*
- ***Helminthoglypta fontiphila****
- ***Helminthoglypta petricola sangabrielis****
- ***Helminthoglypta petricola zechae****
- ***Helminthoglypta traskii pacoimensis***
- ***Helminthoglypta traskii traskii**** **(sensitive species – CNDDB 2009)** DMEC-9
- ***Helminthoglypta tudiculata angelena****
- ***Helminthoglypta tudiculata convicta****
- ***Helminthoglypta tudiculata imperforata****
- ***Helminthoglypta uvasana***
- ***Helminthoglypta vasquezi***
- ***Herpeteros angelus****
- ***Hesperarion hemphilli****
- ***Oxyloma sillimani****
- *Paralaoma caputspinulae*
- ***Pristiloma gabrielinum****
- *Punctum californicum*
- ***Punctum minutissimum***
- ***Sterkia hemphilli***
- *Zonitoides arboreus*

[37] California Natural Diversity Database (CNDDB). 2004. Special Animals. August. California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch, Sacramento, California.

[38] California Natural Diversity Database (CNDDB). 2006. Special Animals. February. (Quarterly publication, mimeo.) California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

[39] California Natural Diversity Database (CNDDB). 2009. Special Animals. March. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

Those that are rare (meeting the criteria identified by CEQA Guidelines Section 15380) are in bold typeface. Those rare terrestrial species that have potential to occur on the Preserve, based on general proximity and habitat suitability (Magney 2009[40]) are designated with an asterisk (*). Of the 38 native terrestrial mollusks known to occur in Los Angeles County, 28 occur on the mainland and are listed above. One species is currently tracked by the CNDDB (2009), *Helminthoglypta traskii* ssp. *traskii*, has high potential to occur in the Puente Hills due to the proximity to known occurrences. Most of the other mainland taxa certainly qualify as rare and should be considered as such (Magney 2009), regardless of the fact that the CNDDB has not yet added them to their list.

Helminthoglypta is a relatively large genus of terrestrial land snails found throughout California (Roth and Sadeghain 2003[41]). *Helminthoglypta* species (Shoulderband snails) almost certainly occur on the Preserve, as this genus of terrestrial snail occurs in a number of natural habitats throughout California. There are 104 species of *Helminthoglypta* known to occur in California, with 26 Gastropoda taxa (species and subspecies) known to occur in mainland Los Angeles County and 12 Gastropoda species known to occur in adjacent Ventura County (Roth and Sadeghain 2003, Magney 2005[42], 2009[43]). Of these, 12 species (taxa) are considered sensitive by the CNDDB (2004). By 2006, CNDDB listed 18 species of *Helminthoglypta* and 104 mollusk taxa, as sensitive (CNDDB 2006[44]), and the same number of *Helminthoglypta* but 110 mollusk taxa by early 2009 (CNDDB 2009a[45]). This regular increase in the number of mollusks considered rare by the CNDDB is a reflection of the new data becoming available about this interesting and important group of wildlife species, which have often been ignored or given very little attention by the resource agencies and environmental consultants (mostly because of their lack of knowledge with this group).

Since the likelihood of one or more species of rare terrestrial mollusks being present on the preserve is high, focused surveys for them should have been part of the assessment of biological resources. The DEIR is inadequate in that it failed to assess project-related impacts to special-status mollusks that have potential to occur onsite.

QUANTIFYING BIODIVERSITY ON THE PRESERVE

Biodiversity is vitally important to the health and vitality to all ecosystems. While difficult to accurately and completely document, there are metrics available that can serve as a basic measure of biodiversity in the Preserve and the project site. An effort to calculate the overall biodiversity of the Preserve should be made

[40] Magney, D.L. 2009. Terrestrial Snails of Los Angeles County. 20 August 2009. David Magney Environmental Consulting, Ojai, California. Published through the Sespe Institute (www.sespeinstitute.com)

[41] Roth, Barry, and Patricia S. Sadeghain. 2003. Checklist of the Land Snails and Slugs of California. (*Santa Barbara Museum of Natural History Contributions in Science* No. 3.) Santa Barbara, California.

[42] Magney, D.L. 2005. Atlas of California Native Terrestrial Snails in Ventura County. 16 March 2005. David Magney Environmental Consulting, Ojai, California. Prepared for County of Ventura, Resource Management Agency, Planning Division. Ventura, California.

[43] Magney, D.L. 2009. Terrestrial Snails of Los Angeles County. 20 August 2009. David Magney Environmental Consulting, Ojai, California. Published through the Sespe Institute (www.sespeinstitute.com)

[44] California Natural Diversity Database (CNDDB). 2006. Special Animals. February. (Quarterly publication, mimeo.) California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

[45] California Natural Diversity Database (CNDDB). 2009a. Special Animals. March. California Department of Fish and Game, Biogeographic Data Branch, Sacramento, California.

as part of the CEQA assessment. The following metrics may be used to quantify overall biodiversity of the Preserve and project site (REWHC 2000[46]):

Species Richness (S) - the total number of different organisms present. It does not take into account the proportion and distribution of each subspecies within a zone.

Simpson Index (D) - a measurement that accounts for the richness and the percent of each subspecies from a biodiversity sample within a zone. The index assumes that the proportion of individuals in an area indicate their importance to diversity. DMEC-10

Shannon-Wiener index (H) - Similar to the Simpson's index, this measurement takes into account subspecies richness and proportion of each subspecies within a zone. The index comes from information science. It has also been called the Shannon index and the Shannon-Weaver index in the ecological literature.

One of these metrics could be used to determine a quantitative measure of diversity present, and can be used to identify potential impacts to biodiversity caused by of the proposed project. Performing at least a minimal assessment of the biodiversity of the Preserve and project site, before and after project implementation, may provide some important insights into how the proposed project, or alternatives, may affect biodiversity onsite and in the Preserve.

MITIGATION MEASURES ARE INADEQUATE

Below is an assessment of several of the DEIR mitigation measures, which are generally lacking in sufficient detail to be feasible (i.e. successful).

Special-Status Plant Species Assessment and Mitigation in DEIR

Table 4.2-1, Special-status Plants, on Page 4.2-10 of the DEIR states that all the special-status plants considered as potentially occurring onsite are "considered absent" because they were not observed during the botanical field surveys of the Preserve. There are many variables why any one species may not be detectable during one or several years. The EIR preparer's conclusions that these species are absent are erroneous. These plant taxa should be considered as potentially present if suitable habitat is present, even if the likelihood may be low. The lack of observations cannot disprove that special-status plants species may germinate and be present on the project site in years with favorable growing conditions.

DMEC recommends that supplemental seasonal field surveys for special-status plant species should be conducted prior to site disturbance activities associated with the proposed project in order to clearly determine if special-status plants species exist in the project footprint. If special-status plants species are found within the development footprint, the exact locations and numbers of plants must be clearly marked. A qualified botanist familiar with the flora of the Preserve region should conduct the surveys. DMEC-11

If special-status plants species are found within the project footprint by the supplemental plant surveys, they should be avoided by construction activities to the maximum extent possible. If avoidance is not possible then as many seeds as possible from populations within the grading areas shall be salvaged and planted in preserve areas. Rancho Santa Ana Botanic Garden is an appropriate facility to conduct the salvage,

[46] http://www.rewhc.org/biomeasures.shtml

storage, and ongoing propagation of these special-status plant species. If possible, translocation of the rare plants should occur onsite or if no suitable location is available, then an offsite location could be used. A suitable translocation site on the parcel would need to be identified and a detailed mitigation plan specific to that impacted species would need to be prepared by a qualified restoration botanist.

Mitigation Measures BIO-1 and BIO-2

Pages 4.2-37 & 38 (last paragraph) of the DEIR discuss Mitigation Measure BIO-1a concerning restoration of coastal sage scrub habitat. The DEIR directs that there will be a minimum 2:1 areal replacement of coastal sage scrub habitat. Restoring 5.46 acres of degraded habitats onsite into coastal sage scrub would compensate for the project's permanent loss of 2.73 acres of coastal sage scrub habitat.

Page 4.2-39 (second paragraph) of the DEIR discusses Mitigation Measure BIO-2a concerning restoration of riparian habitat. The DEIR directs that there will be a 3:1 areal replacement of riparian habitat.

It is not clear why different areal replacement ratios are applied to coastal sage scrub and riparian habitats. Both of these habitats are sensitive habitats under similar conservation threats, and the DEIR uses the exact same rationale for both coastal sage scrub (Page 4.2-28, fourth paragraph) and riparian habitats (Page 4.2-39, fourth paragraph) to explain why the areal replacement ratios are greater than 1:1. The same replacement ratio should be used for coastal sage (i.e. 3:1 for a total replacement of 8.19 acres of habitat) as is used for riparian habitat.

Page 4.2-35 of the DEIR, Table 4.2-3, Areas of Impacted Plant Communities, shows that nine (9) different kinds of coastal sage scrub are going to be impacted by the project. Mitigation Measure 1a needs to specify what types and amounts of each type of coastal sage scrub are going to be restored.

DMEC-12

Restoration projects need multi-year monitoring plans to demonstrate that the ecological function of the impacted habitat type is being adequately replaced and that the restoration is working. Mitigation Measures 1a (coastal sage scrub restoration) and 2a (riparian habitat restoration) need to include restoration plans specifying:

- Specific criteria for restoration success including the metrics that will be used to measure that the ecological functions of the restored habitats are adequately replaced;
- Timeframe for monitoring program;
- Enforcement provisions for resolving problems if restoration criteria are not met; and
- Adequate funding for monitoring and restoration remediation if habitat restoration criteria are not met.

Most habitat restoration actions require at least five (5) years before success in meeting establishment criteria can be determined. Advanced planning must occur prior to on-the-ground work to improve mitigation success. Since many habitat restoration projects, usually conducted as required mitigation, fail to meet mitigation objectives, for a wide variety of reasons; therefore, great care must be taken during each step of the process, starting with establishing clear and precise goals and objectives, and criteria that will be used to measure success or failure. The proposed mitigation measures fail to provide the required level of detail to be considered feasible.

Mitigation Measure BIO-3

Pages 4.2-40 & 41 of the DEIR discuss Mitigation Measure BIO-3 concerning potential rupture or leaks of oil wells or pipelines on the Preserve. The proposed mitigation measure is the preparation of an Emergency Response Action Plan (ERPA).

The preparation of a "plan" is not an adequate or acceptable mitigation measure in itself. The mitigation measure must state clear requirements, standards, and criteria that the plan must incorporate. The preparation of the ERPA needs to be accompanied by specific preparations and resources to deal with the contingency of an oil leak into the preserve. DMEC-13

- Adequate financial resources must be demonstrated to be available in the event of a spill. An ERPA contingency escrow fund should be established with resources commensurate with the estimated costs of restoring the ecological function of the preserve.
- The equipment needed to implement the ERPA must be demonstrably stored onsite and proven to be functional at regular intervals.
- The technical expertise needed to implement the ERPA must be demonstrated in the form of annual review of the ERPA and technical drills to make sure that implementation of the ERPA is practicable.
- Shut-off valves must be present in the pipeline at regular intervals in order to contain oil flow in the event of a rupture or leak into the preserve.

Mitigation Measure BIO-4

Mitigation Measure BIO-4 focuses on project-related impacts to wildlife movement; however, it fails to identify several measures that are feasible that could offset at least some of the significance of the impacts related to the proposed project or project alternatives.

A. Inadequate Consideration of Possible Mitigation Measures to Avoid Declaration of "Significant and Unavoidable Impacts to Wildlife Movement"

Page 4.2-41 of the DEIR concludes that the project will have significant and unavoidable impacts on wildlife movement due to development and operation of the proposed East Well pad site.

On Page 6 of their Notice of Preparation Comments, the Habitat Authority specifically requested that several possible mitigation measures be assessed to mitigate for the project impacts of the East Pad site on wildlife movement around the service tunnel. These mitigation options have not been assessed in the DEIR. The proposed mitigation measures that have not been adequately assessed are:

- Re-routing the trail away from the East Well Pad;
- Installing safe passage culverts under internal roads in the project area; and DMEC-14
- Construction of an alternative trail or wildlife overpass in another section of Colima Road.

If the project is to proceed as presented in the DEIR then the above mitigation measures must be assessed for their feasibility to avoid the project impact to wildlife movement. There are clearly feasible solutions

available to mitigate the project impact on wildlife movement. It is not acceptable that these impacts are labeled "unavoidable" in the absence of adequate analysis and mitigation planning.

B. Inadequate Assessment and Consideration of Mitigation Measures for Vibration Impacts of Project on Wildlife Movement and Reproduction

Page 4.5-35 of the DEIR discusses how drilling activities will increase vibration levels in the Preserve and surrounding area. The impacts of vibrations caused by drilling activities in the Preserve are declared to be significant and unavoidable, without any mitigation recommendations to reduce the impacts as much as feasible.

The vibration impacts presented are based on the assumption that vibration levels 100 feet from the drilling would be 0.19 inches per second. This vibration level would exceed the significance criteria of 0.01 inches per second defined by County of Los Angeles Code. The DEIR vibration analysis projects that the vibration impact significance criterion could be exceeded for residences within 700 feet of the drilling site within the Preserve. This vibration impact assessment is based upon vibrations data from a pile driver and sheetpiling (DEIR Table 4.5-4). DMEC-15

The vibration significance assessment is flawed in that a pile driver is used as a proxy for drilling equipment. The measurement of oil drilling vibration is an area of active research (Russell et al. 200847 and the vibration data from oil drilling equipment proposed for the project should be the baseline data to assess drilling vibration impacts.

The vibration impact assessment does not address potential drilling vibration impacts to wildlife species. The project site is within a sensitive area of the Preserve that serves as an important refuge for wildlife reproduction (i.e. as a wildlife nursery). The potential impact of drilling vibrations on the ecological role of the Preserve as a wildlife nursery must be assessed as part of the CEQA review process. The vibrations produced by oil drilling have the potential to disrupt the nesting of migratory birds and other special-status wildlife species. These potential impacts on nesting birds and special-status wildlife species must be assessed in the EIR.

No mitigation measures are proposed for the vibration impact, as it is not assessed beyond the declaration that the impact is significant and unavoidable. Insufficient analysis is presented to support the conclusion that the vibration impacts of drilling in the preserve are unmitigable.

LANDFILL ROAD ALTERNATIVE ANALYSIS

Section 6.1.5.2 of the DEIR (p. 6-42) briefly assesses how the Landfill Road Alternative will affect biological resources in the Preserve. The conclusion of this assessment is that the Landfill Road Alternative will:

- Reduce some impacts to sensitive species and sensitive coastal sage scrub
- Eliminate all impacts to riparian habitats

[47] Wassell, M.E; Cobern, M.E.; Saheta, V.; Purwanto, A.; and Cerpeda, M. 2008. Active Vibration Damper Improves Performance and Reduces Drilling Cost. *World Oil*. http://www.rmotc.doe.gov/PDFs/WO.APS.Sept08.pdf

- Have some potential impacts to wildlife corridors, but that these impacts would be considered mitigable by implementation of mitigation measures BIO-4a (noise mitigation) and BIO-4h (installation of appropriate native screening vegetation around the terminus of the Service Tunnel).

Based on this, the DEIR states that this project alternative is the Environmentally Superior Alternative. The assessment of the Landfill Road Alternative's on the biological resources of the Preserve is incomplete in several areas, which are discussed below.

Effect of Landfill Road on Core Habitat in the Preserve

A. Disruption of Core Habitat as Wildlife Nursery

The DEIR does not assess how the Landfill Road will affect the core habitat of the Preserve. The Landfill Road expansion discussed in the DEIR would introduce a very active disturbance into what is currently core habitat of the Preserve without human disturbance (public access is prohibited). As defined in the Resource Management Plan (P.72), core habitat is an area that can sustain a population of plants or animals by providing food, shelter, and a place to safely reproduce. By providing core habitat, the Preserve serves as a "wildlife nursery" for wildlife species like Mule Deer and Bobcat by allowing them to reproduce away from ecological edge effects like noise, unnatural lighting, and disturbance by humans and domestic animals. Research on Bobcats (Riley 2006[48]) demonstrates that they avoid areas of human disturbance. Without the ecological function of core habitat in the Preserve buffering them from human disturbance, it is possible that Bobcats and other wildlife species sensitive to human disturbance would not be able to reproduce in the Puente Hills region. In this event, viable populations of these species would disappear from the Puente Hills region. DMEC-16

The DEIR asserts the project impact on overall acreage of sensitive coastal sage scrub and riparian habitat may be lessened by the Landfill Road Alternative; however; this alternative would have potentially devastating effects on the viability of wildlife populations to reproduce in the Preserve by disrupting the ecological functions of core habitat as a wildlife nursery. The DEIR must assess the full potential impact of the Landfill Road Alternative on the ecological function of the core habitat as a wildlife nursery.

B. Fragmentation of Core Habitat

The conversion of the current Landfill Road into a permanent road for the proposed project through the core habitat of the Preserve could cause permanent fragmentation of the core habitat. The disruption of wildlife movement patterns caused by this fragmentation could negatively impact viability of wildlife populations by causing the genetic deterioration of populations (Delaney et al. 2010[49]). This is especially true for sensitive invertebrate species that need unfragmented core habitat to persist. The core habitat of the Preserve provides habitat for many species of invertebrates that may also disappear without the ecological benefits that the core habitat provides (i.e. adequate food and shelter, buffer from human disturbance). For

[48] Riley, S.P.D. 2006. Spatial Ecology of Bobcats and Gray Foxes in Urban and Rural Zones of a National Park. *Journal of Wildlife Management* 70(5): 1425-1435.

[49] Delaney, KS, S.P.D. Riley, R.N. Fisher. 2010. A Rapid, Strong, and Convergent Genetic Response to Urban Habitat Fragmentation in Four Divergent and Widespread Vertebrates. *PLoS ONE* 5(9):e12767. doi:10.1371/journal.pone.0012767

example, some groups of invertebrates, such as the Mygalomorphae (trapdoor spiders and their kin), have very long life spans (20-30 years) and specific habitat requirements (Bond et al. 2006[50]). Disturbances to these habitats may result in local population extinctions, which in turn may lead to regional extirpation. DMEC-17

The *Helminthoglypta* snails (shoulderband snails) provide a specific example of how fragmentation of the core habitat by the Landfill Road could occur. There are potentially 14 rare species of *Helminthoglypta* snails occurring at the Preserve. These species are endemic to the Los Angeles region. Recent surveys of the Newhall Ranch's Mission Village development project found three species of rare terrestrial *Helminthoglypta* snails that were not previously thought to occur there (Impact Sciences 2010[51]). The expansion and operation of the Landfill Road would potentially serves as a barrier to the movement of snails through the core habitat area of the Preserve, as has been demonstrated in other snail species (Baur and Baur 1990[52]). Fragmentation of a rare *Helminthoglypta* population could disrupt the gene flow within the snail population necessary for persistence of the population. Recent genetics work on lizards demonstrates that fragmentation by road barriers can genetically isolate populations in relatively short time periods (Delaney et al. 2010); the fragmentation of the Preserve's core habitat by the Landfill Road Alternative could have similar effects on animal populations.

The DEIR must assess the full potential impact that the Landfill Road Alternative may have on fragmenting the core habitat of the Preserve, specifically on the ecological persistence of populations of sensitive animal species such as the *Helmintoglypta* snails.

C. Potential Disruption of Bird Breeding by Noise Generated by Use of the Landfill Road

The California Fish and Game Code § 3513 prohibits the take or possession of any nongame migratory bird. The Migratory Bird Treaty Act (16 U.S.C. § 703) prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act applies to whole birds, parts of birds, and bird nests and eggs.

On Page 6-45 (Section 6.1.5.5), the DEIR states that during the operation of the Landfill Road, the noise levels measured 50 feet from the road may range from 40 to 72dBA.

The noise generated along the Landfill Road would functionally become permanent during the 30 plus year span of the proposed project. This noise would be a novel disturbance in the core habitat area of the Preserve and could interfere with the nesting of migratory birds. The disruption of migratory bird nesting by project-generated noise could be as a "take" prohibited by the Migratory Bird Treaty Act (16 U.S.C. § 703) and Fish and Game Code (§ 3513). DMEC-18

The DEIR must assess the potential negative impact of noise generated by the Landfill Road Alternative on the nesting success of breeding birds. DMEC recommends that at the very least a zone of 300 feet around the proposed Landfill Road route should be assessed for project-related noise effects on breeding birds. A 300-foot buffer zone is a common distance recommended by CDFG for assessing project impacts on

[50] Bond, J.E., D.A. Beamer, T. Lamb, and M. Hedin. 2006. Combining Genetic and Geospatial Analyses to Infer Population Extinction in Mygalomorph Spides Endemic to the Los Angeles Region. June. *Animal Conservation* 9:145-157.

[51] Impact Sciences 2010. Mission Village Draft Environmental Impact Report. (SCH No. 2005051146.) October 2010. Prepared for Los Angeles County Regional Planning, Los Angeles, California. Camarillo, California.

[52] Baur, A. and B. Baur 1990. Are Roads Barriers to the Dispersal of the Land Snail *Arianta arbustorum*? *Canadian Journal of Zoology* 68:613-617.

breeding birds (e.g. Shasta River FEIR 2008[53]). We note that the Landfill Road would traverse known Coastal California Gnatcatcher nesting/breeding habitat. While this species has been observed breeding in areas of high noise (e.g. adjacent to airports) (Awbrey et al. 1995[54]), it is not clear that gnatcatchers will continue to breed in areas where substantial novel noise is introduced, as would be the case with noise generated from along the Landfill Road by heavy equipment and vehicles. The specific impact of noise on Coastal California Gnatcatcher breeding in the Landfill Road Alternative Area must also be assessed in the DEIR.

DMEC PROPOSED PROJECT ALTERNATIVE

The primary source of significant adverse impacts to biological resources on the project site and Preserve results from habitat fragmentation, erecting barriers to wildlife movement, and degradation of core habitat resulting from widely disperse project facilities and, with the use of the Landfill Road proposed in the "Environmentally Superior Alternative", bisecting core habitat. By simply using components of the proposed project and alternatives, a truly environmentally superior alternative can be permitted that would avoid or minimize most of the significant adverse impacts related to reinitiating oil and gas extraction on this property.

Figure 1, DMEC Proposed Project Alternative, illustrates how the project could be developed that would achieve project objectives and minimize adverse impacts to the Preserve and sensitive biological resources using the Preserve. DMEC-19

Basically, DMEC recommends that the site be accessed via Catalina Avenue (as for the Proposed Project), to a consolidated facilities site (as for the Landfill Road Alternative). The Landfill Road and areas near the Colima Road underpass should be avoided do to the importance of the natural habitats along them. The project facilities can be build under façade buildings that would reduce or eliminate noise and light pollution from natural habitats and nearby residences. Such measures are routine practice in urban areas such as Beverly Hills.

These conclude our comments on the DEIR. Please contact DMEC if you have any questions about any of the comments above.

Respectfully,

David L. Magney
President/Biologist

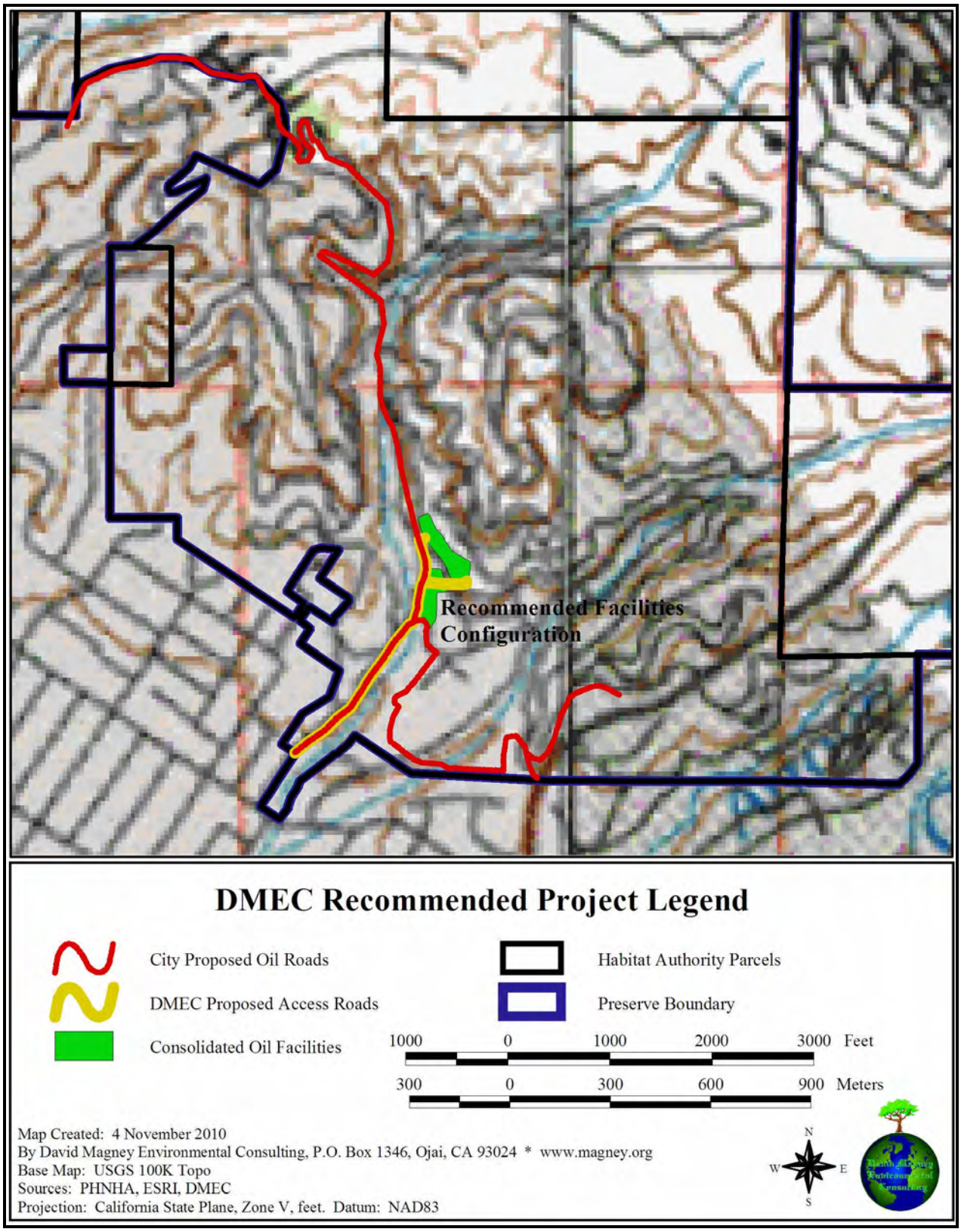
David M. Brown
Wildlife Biologist

[53] California Department of Fish and Game (CDFG). 2008. Shasta River Permitting Final EIR. http://www.dfg.ca.gov/regions/1/ShastaScott/ShastaRiverEIR/http://www.dfg.ca.gov/regions/1/ShastaScott/ShastaRiverEIR/

[54] Awbrey, F.T., D. Hunsaker, and R. Church. 1995. Acoustical Responses of California Gnatcatchers to Traffic Noise. *Inter-noise* 65: 971-974.

DMEC PN: 10-0151

Figure 1. DMEC Proposed Project Alternative



FRIENDLY HILLS
WHITTIER

July 22, 2011

Attn: Mr. Jeffrey Adams, Planning Manager
City of Whittier Planning Division
13230 Penn Street
Whittier, CA 90602
Email: JAdams@CityOf Whittier.org

Dear Mr. Adams,

The Friendly Hills Property Owners Association (FHPOA) wishes to express its thanks to the Whittier Planning Division, as Lead Agency for the Whittier Main Oil Drilling Project, for this opportunity to comment on the Draft EIR for that project, as released on June 6, 2011.

A primary concern of the Property owner's Association is that the age of the City's current General Plan (last updated in 1993) makes it very difficult to make a finding of consistency with that document. It is our understanding that a current General Plan serves as a local government's guiding document in its daily affairs and its development activities, much as does the Constitution for the Nation's Federal Government. It is further our understanding that California Law establishes an expectation that this document should be updated at approximately ten year intervals and that the updating process takes approximately two years to competently complete.

A required part of the Environmental Impact Report is a determination of consistency of the proposed project with the City's General Plan. Since the last update of the City's General Plan dates from 1993, this poses a real challenge for the Whittier Main Oil Project. The current General Plan clearly establishes a preference for the acquisition and preservation of open spaces, outdoor recreational opportunities, energy conservation, and the maintenance of environmental values. (See Land Use Element pp. 2-10 through 2-11 and Environmental Resource Management Element (ERME) pp. 5-2 through 5-5). As stated in both the Land Use Element and ERME of the General Plan, meeting the goals stated therein and pursuing the Whittier Main Oil Field Drilling Project is, at best, problematic. Indeed, the only mention of oil drilling in the general plan relates to its role in the contamination of the City's ground water resources (ERME p. 5-1) and to the establishment of a policy of working with appropriate agencies to rehabilitate or encourage rehabilitation of former drilling sites for the preservation of natural resources (ERME p.5-3,policy1.4). FHPOA-1

It could be that an update of the General Plan would show that community values and priorities have shifted from the goals stated in the current plan to those of tax avoidance (through City investment in oil production) and a lowering of environmental values to allow for that investment. Such a clear shift in public sentiment might justify the oil drilling project. We could only know that, however, if the citizenry went through the detailed democratic process of updating the City's General Plan as is mandated under State law. Unless clear consistency with a current General Plan can be shown in the Environmental Report, this project will undermine the process of orderly development in the City of Whittier. We would strongly urge that the City go through that process and establish consistency with a current General Plan, prior to the undertaking of the proposed radical shift in policy.

PROPERTY OWNERS ASSOCIATION
WWW.FRIENDLYHILLS.ORG
PO BOX 1018 • WHITTIER • CA • 90609

Should the City Council decide to advance this project, despite this concern for consistency with the General Plan, FHPOA also has concerns that relate to the specifics of the project as currently proposed. These concerns include the following points.

1. The current proposal for an access road is off Catalina and down Mar Vista, for the duration of the five year construction phase of the project. The use of heavy equipment and trucks on these roads for this period of time will have a significant impact on both the road infrastructure and the traffic flow and safety of the Friendly Hills neighborhood. We note with further concern that it is currently proposed to remove the traffic calming medians from Mar Vista Street, West of Colima road. That measure, combined with the imposition of this heavy industrial truck traffic, will undoubtedly exponentially increase the traffic safety threat posed by a street where local residents are already driven to posting their own, hand-made signs imploring the traffic to "Slow Down." An alternate drilling site or a route that avoids sending heavy industrial traffic through residential neighborhoods would be the only policy options that could reduce the impact of this truck traffic to a less than significant level. FHPOA-2

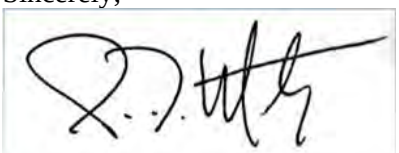
2. Consultants for the Oil Project have publicly proposed an earthen berm of ten to fifteen feet in height between the drilling site and the residences along Lodosa. The project as proposed, however, makes no mention of this safety/environmental quality feature for the project. We believe that such a feature should be made a condition of the project to the extent that the drilling site is kept as near residential neighborhoods as is currently proposed. An even better approach might be to require a fifteen-foot-tall freeway type sound-wall surrounding the site to help mitigate the noise, pollution, and fire safety threats posed by the drilling. Ivy or creeping fig type plant material should be added to the wall to soften its visual impact on the community. FHPOA-3

3. The proposed plan calls for twenty-four-hour per day, seven-days-per week drilling. Such noise should not be allowed in this residential neighborhood. Evening (6 PM to 7 AM) and week-end quiet periods to allow for sleep and relaxation should be a fundamental condition for the project. Also, the proposed diesel engine drilling rigs should be changed to electric engines to help reduce noise and pollution from the project. FHPOA-4

4. The currently proposed drilling site is a mere 1500 feet from homes and schools. The size of the overall proposed site makes it eminently possible to move the drilling site deeper into the canyon to further mitigate its environmental impact from both noise and pollution. FHPOA-5

We look forward to the resolution of these concerns in whatever proposal for this project advances from the current proposal. Thank you, again for the opportunity to comment on the Draft EIR.

Sincerely,



Randall D. Martinez
President
Friendly Hills Property Owners Association

Andrew Salas
Chairman

Nadine Salas
Vice-Chairman

Christina Swindall-Martinez
Secretary

Albert Perez
Treasurer I

Martha Gonzalez-Lemos
Treasurer II

Albert Acuna, Jr
Chairman of the
Council of Elders

Ernest P. Salas Tautimez
Chief and Spiritual Leader

GABRIELEÑO BAND OF MISSION INDIANS
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

Via email and certified mail

City of Whittier
13230 Penn St
Whittier, CA 90602

Dear City of Whittier,

July 18, 2011

This letter is in response to the comment period for the draft EIR for the Whittier Main Oil Field project. While you have contacted other Gabrieleno tribes, our tribe was not contacted for whatever reason and we are writing to express our concerns about this project. Our tribe once inhabited all of Los Angeles basin extending down into Orange County and to the Channel Islands. The proposed project is within this culturally sensitive area and in order to protect our resources we're requesting one of our experienced & certified Native American monitors to be on site during all ground disturbance.

To clarify, when the Native American Heritage Commission states there are "no records of sacred sites" in the subject area, they always refer the contractors back to the Native American Tribes whose tribal territory the project area is in. This is due to the fact that the NAHC is only aware of general information on each California Native American Tribe. They are not the experts on our Tribe. Our Elder Committee & Tribal Historians are the experts. The area of your project was valued by our people as well due to its location, the nearby river and proximity to food sources. Numerous Gabrieleno villages were located in this area including Wapijangna, Sejatnga, Sehat and Passinonga. Additionally, my family are direct descendants of Juan Crispin Perez Nieto and Manuel Perez Nieto, so Whittier holds a special place to us on many fronts. GBMI-1

We are dedicated to protecting and preserving our history and cultural – this includes protecting artifacts that may be found during ground disturbance for construction projects throughout Los Angeles County. If human remains are found, we will work quietly and respectfully to find a balance between the goals of your project and the preservation of our ancestors.

P.O. Box 393 • Covina, California 91723 • 626.926.4131 • www.gabrieleno-tribe.org

Andrew Salas
Chairman

Nadine Salas
Vice-Chairman

Christina Swindall-Martinez
Secretary

Albert Perez
Treasurer I

Martha Gonzalez-Lemos
Treasurer II

Albert Acuna, Jr
Chairman of the
Council of Elders

Ernest P. Salas Tautimez
Chief and Spiritual Leader

GABRIELEÑO BAND OF MISSION INDIANS

Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

2

We have made note that the Gabrieleno-Tongva Tribal Council responded to your inquiries previously. We will gladly discuss our concerns regarding this group when it is time to meet face to face. We are the tribe recognized by the State of California with geneology-certified members proving their ancestry back to Gabrieleno villages of the 1700s. We look forward to hearing from you to make arrangements for monitoring. GBMI-2

Sincerely,

Andrew Salas, Chairman

P.O. Box 393 • Covina, California 91723 • 626.926.4131 • www.gabrielenoindians.org

Gabrieleno Indians 061111

From: gabrielenoindians@yahoo.com
Sent: Saturday, June 11, 2011 8:13 PM
To: Jeff Adams; ds_nahc@pacbell.net; Christina Swildall
Subject: Whittier Main Oilfield development project

Dear Mr Adams ,

This email is in response to your letter dated June 6 , 2011 in regards to the above subject
project. The proposed project is within a highly culturally sensitive area also the vast area of
Whittier was once owned by my Great Great Great Grandfather Juan Crispin Perez long before
the Quaker family so in order to protect our resources we're requesting one of our

experienced & certified Native American monitors to be on site during all ground disturbance . GI-1

Andy Salas (Chairperson)
Sent from my BlackBerry® by Boost Mobile

SHUTE, MIHALY & WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: 415 552-7272 F: 415 552-5816
www.smwlaw.com

GABRIEL M.B. ROSS
Attorney
ross@smwlaw.com

July 21, 2011

Via E-Mail and U.S. Mail

Jeff Adams, Community Development
Department City of Whittier
13230 Penn Street
Whittier, California 90602
comdev@cityofwhittier.org

Re: Comments on the Revised Draft Environmental Impact Report for Whittier Main Oil Field Development Project

Dear Mr. Adams:

This firm represents Hills for Everyone ("HFE"), and provides comments on the environmental review of the Whittier Main Oil Field Development Project ("Project"). The proposed Project analyzed in the RDEIR is not a "new" project but a combination of elements drawn from the previously proposed project analyzed in a draft environmental impact report ("DEIR") last year. We therefore consider the present document, dated June 2011, to be a revised draft Environmental Impact Report ("RDEIR"). We submit this letter to state our position that the RDEIR does not comply with the requirements of the California Environmental Quality Act ("CEQA") and the CEQA Guidelines, for all of the reasons set forth below, as well as all of the reasons stated in our letter of December 6, 2010 commenting on the DEIR ("SMW DEIR letter"), which is attached as Exhibit A and by this reference incorporated herein in its entirety.

It is perplexing to us that the City took the time and energy to prepare a revised DEIR but failed to address its real inadequacies. The SMW DEIR letter raised numerous deficiencies in the project description, in the environmental impact analyses, and in alternatives analysis. The revised Project remains inadequate and subject to a number of the same deficiencies as its predecessor. It ignores most of the flawed impact analyses and makes half-hearted corrections to others. In addition, the Project demonstrates a disturbing disregard for the City of Whittier General Plan. The RDEIR papers over the

Project's fundamental conflict with the City's General Plan by pointing to mitigation measures purported to minimize Project-related impacts in the hopes that this will excuse the overarching inconsistency. In light of these fundamental CEQA violations, the Project may not be approved on the basis of this EIR.

BACKGROUND

HFE was formed 30 years ago with the specific mission to protect the unique, rare, and disappearing landscape in the Puente-Chino Hills. These hills lie at the juncture of Southern California's four most populous counties: Los Angeles, Orange, Riverside, and San Bernardino. HFE's first goal was the creation of Chino Hills State Park ("CHSP"). By designing the Park along ridgeline boundaries, HFE originated a design strategy that protected the watershed and the viewshed. In HFE's earliest history, its mission included opposing projects that damaged the evolving Park and supporting decisions that protected it.

While advocating for CHSP, HFE members educated elected officials about the value of open space in this highly urbanized region. A bipartisan and bicameral coalition of state legislators secured funds through five Park Bond Acts that HFE's volunteers worked to have passed. With over 30 separate acquisitions, the State and other agencies have spent over $108 million to acquire nearly 14,500 acres, making it the most complicated and expensive state park in history. Since the Park lies within an hour's drive of over half the state's population, a wilderness experience is now available to people who might not otherwise be able to afford one. For their efforts, in 1997, the California Department of Parks and Recreation honored HFE with the DeWitt Award for "Extraordinary Achievement in the Establishment of the Chino Hills State Park."

The Puente Hills Landfill Native Habitat Preserve ("Preserve") is located at the eastern edge of Los Angeles County, bounded by the San Gabriel River on the west and the Chino Hills to the east. The Preserve encompasses approximately 3,860 acres managed as open space. The Preserve is an integral part of the Puente-Chino Hills Wildlife Corridor, an unbroken zone of natural habitat extending nearly 31 miles, of which the Chino Hills State Park is a part.

Like the DEIR before it, this RDEIR plays down the Project area's recognized high sensitivity and dramatically understates the importance of the Project site to the biodiversity of the region. The Preserve and multiple, adjacent, important conservation areas support biological resources that are significant on both a local and regional scale. Yet, the RDEIR again takes a blinkered approach to evaluating impacts on biological resources and fails to evaluate the overall biodiversity of the Preserve or to analyze the

Project's impact on biodiversity. The Preserve and the Puente-Chino Hills region have unique, irreplaceable natural resources with vibrant and diverse wildlife, which should have been evaluated with the utmost care.

With regard to land-use impacts, the RDEIR similarly misses the mark, failing to account for manifest violations of the City of Whittier's General Plan. The Project continues to be fatally inconsistent with multiple provisions of the City's General Plan. Furthermore, the Project's inconsistency with the General Plan results in the City's inability to make the necessary findings under zoning code requirements to grant the conditional use permit for the site.

CEQA requires that an EIR provide the analysis and detail about environmental impacts that is necessary to enable decision-makers to make intelligent decisions in light of the environmental consequences of their actions. See CEQA Guidelines § 15151; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692. The EIR is also the "primary means" of ensuring that public agencies "take all action necessary to protect, rehabilitate, and enhance" the environment. *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376, 392. Thus, CEQA incorporates a substantive requirement that the lead agency adopt feasible mitigation measures or alternatives that can substantially lessen the project's significant environmental impacts. Pub. Resources Code § 21002; CEQA Guidelines § 15002(a)(3). Finally, the EIR is a "document of accountability," intended to demonstrate to the public that the agency has considered the environmental implications of its action. *Laurel Heights*, 47 Cal.3d at 392.

As detailed below, the RDEIR does not comply with CEQA's requirements or satisfy CEQA's objectives: (1) the RDEIR fails to accurately analyze the Project's consistency with the City's General Plan and Zoning Code; (2) the RDEIR fails to provide sufficient information about the Project's impacts to enable informed decision-making by the City; (3) the RDEIR fails to satisfy CEQA's substantive mitigation requirement; and (4) the RDEIR fails to demonstrate to the public that the City has fully grappled with the environmental implications the Project.

I. The Revised Project Remains Inconsistent with Applicable Plans and Ordinances and Therefore Cannot be Approved.

An inconsistency between a project and an applicable land use plan or regulation is a significant environmental impact under CEQA. The question of consistency between the Project and the applicable plans and ordinances plays two distinct roles in the environmental review and project approval process. First, under the California

Environmental Quality Act ("CEQA"), a conflict between a plan or ordinance and the Project is a significant impact that must be disclosed and analyzed in the EIR. See *Pocket Protectors v. City of Sacramento* (2005) 124 Cal. App. 4th 903, 929-36. The RDEIR acknowledges this by establishing unequivocally that the Project would have a significant impact if it would "[c]onflict with any applicable land use plan, policy or regulation." RDEIR at 4.11-20. The EIR's conclusions regarding these impacts, like those for any other impact, must be supported by substantial evidence. HFE-1

Second, under separate provisions of state and local law, the Project may not be approved in the face of such an inconsistency. As noted in the RDEIR, the Project requires a development review permit and a conditional use permit. RDEIR at 1-5. State law clearly requires these approvals to be consistent with the City's General Plan. "The propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 570. Specifically, State law bars the grant of a conditional use permit for an activity that would be inconsistent with a general plan. See *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal. App. 3d 1176, 1184. As discussed below and in our previous comment letters, the Project is inconsistent with the City's General Plan in a number of ways. *See* Exhibit A, SMW DEIR letter at 3 through 5. The Project is also inconsistent with the City's Zoning Ordinance. *Id.* at 5 and 6. Thus, the City cannot legally grant the conditional use permit for this Project or any iteration of the Project if it is to be located within the Preserve. HFE-2

Furthermore, the City's own code expressly bars the City from granting any of the required approvals for this Project unless they are consistent with the General Plan and the Zoning Code. For example, the conditional use permit needed for the Project may not be granted unless "the proposed use will…be consistent with the general plan…and the Whittier zoning regulations." *See* City of Whittier Zoning Code §18.52.040 (B). Thus, the City may not approve any permit that would facilitate uses inconsistent with general plan or zoning requirements. In short, both state and local law bar the City from granting the required approvals for this Project unless it is consistent with the General Plan. HFE-3

As explained in the SMW DEIR letter and demonstrated below, the Project is in many ways inconsistent with the applicable plans and ordinances, and the RDEIR's analysis of these inconsistencies is deeply inadequate. It is important to keep in mind the distinction between these flaws. The CEQA issues may potentially be resolved if, for example, the City Council recognizes that the conflicts constitute a significant and unavoidable impact and finds, based on substantial evidence, that the Project's benefits outweigh that impact. *See* Public Resources Code § 21081. Such a finding, however, could do nothing to overcome the actual conflicts between the Project and the plans. HFE-4

Finally, it is important to note that the permanent protection of important open space areas has become an urgent need throughout the state. California statutory and case law have long recognized open space as a valuable environmental resource. Accordingly, the California Legislature has declared that "open-space land is a limited and valuable resource which must be conserved wherever possible." Gov't Code § 65562(a). Nearly thirty years ago the California Supreme Court recognized that "[t]he elimination of open space in California is a melancholy aspect of the unprecedented population increase which has characterized our state . . . ." *Associated Home Builders of the Greater East Bay, Inc. v. City of Walnut Creek*, 4 Cal.3d 633, 638 (1971), cert. denied, 404 U.S. 878 (1971). Of course, the problem has become ever more serious since the Court's prescient statement.

The RDEIR acknowledges many of the inconsistencies described in this letter, but concludes that the Project is consistent with others and finds all of them to have less than significant environmental impacts. The lack of substantial evidence supporting these significance determinations renders the EIR inadequate and makes certifying the EIR and approving the Project inappropriate. At the same time, no amount of CEQA analysis or disclosure could cure the obvious and acknowledged conflicts between the proposed Project and the City's plans and ordinances. The Project is not consistent with the City's General Plan and does not meet the requirements of the City's Ordinances. State and local law thus clearly forbids the City from approving it. HFE-5

In light of these fatal deficiencies, we respectfully request that the City take no action on this Project until an EIR is prepared that complies with CEQA and until the Project complies with all state and local laws. More importantly however, this inconsistency means that the City cannot approve the Project without first amending both the General Plan designation and zoning for the site.

B. The RDEIR's Analysis of the Project's Incompatibility with the City's Zoning Code Is Inadequate

The revised Project, like the project contemplated before it, is inconsistent with the zoning for the site. See SMW DEIR letter, attached as Exhibit A, at 5 and 6. As the RDEIR acknowledges, the Project site is zoned as Open Space ("OS") and the "reintroduction of oil exploration to the Project Site would not be permitted by right." RDEIR at 4.11-43. The Zoning Code explicitly prohibits industrial uses within the OS zone. Zoning Code §18.09.060. The proposed oil and gas production facilities are plainly industrial uses and are thus banned in the OS zone. Elsewhere, the Zoning Code purports to allow oil and gas production in all zones by conditional use permit. Zoning Code §18.52.030(A). These two provisions of the Zoning Code are clearly in conflict.

When such a conflict arises, the more specific provision, not the more general one, always applies. The particular requirements for the OS zone are more specific than the general provision for oil drilling citywide. Thus, the OS zone rules apply, and the Zoning Code therefore does not allow the permit required for the Project.

As explained in the SMW DEIR letter, this legal conclusion is grounded in common sense: it is only reasonable that the Zoning Code bars oil and gas development in a habitat preserve and a zone devoted to maintaining open space. Any other reading of the Code would undermine the very purposes of the Preserve and the OS designation. Thus, the City cannot approve this CUP. HFE-6

The RDEIR's analysis fails to identify the Project's inconsistencies with the zoning code. As it did with its analysis of the Project's consistency with the General Plan, the RDEIR concludes that measures identified to mitigate the Project's environmental impacts would reduce impacts to less-than-significant levels, thus excusing the Project's inconsistency with the zoning for the site. RDEIR at 4.11-50. Inasmuch as the Project would reintroduce oil drilling, clearly an industrial use, into an area zoned as Open Space, the Project is inconsistent with the Zoning Code. Consequently, no amount of mitigation to offset significant impacts related to visual resources, biological resources, noise and air quality will change the Project's inconsistency with the Code.

C. There is No Evidence to Support the Findings Necessary to Proceed with a Conditional Use Permit, Including the Finding of General Plan Consistency.

Notwithstanding the fact that the proposed sites location within an established Preserve is entirely inappropriate for oil drilling activities, the City also would not be able to make the findings necessary to approve the conditional use permit for the Project. In order to issue a conditional use permit for the Project, the City must make the following findings: 1) the site is adequate in size, shape and topography; 2) the site has sufficient access to streets; 3) the use will not *unreasonably interfere with the use, possession and enjoyment of surrounding adjacent properties*; 4) the use will be *compatible with the permitted uses of surrounding* and adjacent properties; 5) the use is *consistent with the General Plan and any applicable specific plan and with the Whittier zoning regulations*. Zoning Code §18.52.040; emphasis added.

As explained in the SMW DEIR letter, the Project is inconsistent with the site's General Plan. Further, the Project is incompatible with and would interfere with the use of adjacent properties because it would result in: (1) significant and unavoidable localized HFE-7

air quality impacts; (2) significant and unavoidable noise and aesthetic impacts to nearby residences as a result of the Project's drilling activities; and (3) significant and unavoidable impacts to the community's recreational resources. See RDEIR at ES-22 to ES-24. As the RDEIR makes clear, the Project would result in significant, unmitigated impacts to adjacent properties from more than three years of construction emissions; increased vibration and ambient noise in violation of established standards, safety risks to residents and schools associated with accidental releases of pollutants, loss of recreational uses in the immediate vicinity, and degradation of views. *Id.* Therefore, because the Project does not meet the Zoning Code standards for issuance of conditional use permits, it cannot be lawfully approved.

II. The RDEIR Fails to Provide an Adequate Description of the Project Setting.

The RDEIR is flawed from the outset because it continues to rest on an incomplete description of the Project's environmental setting. Despite comments from HFE and the Habitat Authority regarding these same failings in the previous DEIR, the RDEIR continues to understate the Project area's recognized high sensitivity and de-emphasizes the importance of the Project site to the biodiversity of the region. The RDEIR acknowledges that "loss and degradation of habitats at the Project Site could be expected to have greater adverse effects upon ecological processes and native wildlife populations than would occur in an area with comparable natural communities that does not occupy such a sensitive location within a natural Preserve." RDEIR at 4.2-52. However, the document then goes on to view the Project's impacts narrowly and fails to calculate the overall biodiversity of the Preserve. The RDEIR's artificial focus on direct habitat removal results in a complete failure to analyze the broader impact of loss of biodiversity. HFE-8

Second, the RDEIR fails to correct failures related to incomplete and inaccurate background data. For example, the RDEIR ignores comments on the DEIR that the surveys to establish baseline conditions were restricted to the immediate area surrounding the proposed facilities (i.e., direct impacts) and relies on the same inadequate survey data. See RDEIR at 4.2-1 through 4.2-3. Thus, the RDEIR's narrow description of the sensitive species and habitats present in the Project area results in an incomplete description of the sensitive environmental setting of the Project. HFE-9

Finally, the environmental setting ignores certain species that are likely to occur on site, such as non-vascular plants and invertebrates, both important to biodiversity. The RDEIR fails to evaluate the potential occurrence of non-vascular plants altogether and fails to disclose habitat for four species of butterfly listed in the Resource Management Plan ("RMP") for the Preserve. *Id.* at 12 and 13. The latter oversight is inexcusable given evidence in the record of the presence of habitat and individuals of these butterfly species HFE-10

on the Project site. (*Compare* RMP at Appendix, pages 150-151 (documented observations of butterfly species) with RDEIR at Tables 4.2-2 (no mention of butterfly species. These omissions skew the RDEIR's analysis of Project impacts and, thus, undercut the validity of the entire document.

III. The DEIR Fails to Analyze and Mitigate the Project's Significant Environmental Impacts.

The fundamental purpose of an EIR is to "inform the public and responsible officials of the environmental consequences of their decisions before they are made." *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 6 Cal.4th 1112, 1123. To do so, an EIR must contain facts and analysis, not merely an agency's conclusions. *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568. In order to fulfill CEQA's informational goal, an EIR must lay bare a Project's significant environmental impacts. In many instances, as detailed below, the RDEIR fails to adequately disclose and analyze the Project's impacts, particularly in the areas of biological resources and air quality.

As documented below, the Project RDEIR fails to adequately analyze or support with substantial evidence its conclusions regarding the Project's significant environmental impacts. These deficiencies clearly demonstrate the inadequacy of the RDEIR under CEQA.

A. The RDEIR's Analysis and Mitigation of Significant Impacts to Biological Resources Are Inadequate.

The proposed Project would result in industrial development within a nature preserve, resulting in locally and regionally significant impacts to several sensitive species including the federally endangered California gnatcatcher and a long list of other special status species, including several species designated as California Special Animals by the California Department of Fish and Game ("CDFG"). Given the local and regional significance of the site's plant and wildlife communities together with the fact that numerous members of the public commented on the inadequacy of the original DEIR's analysis of biological resources, one would expect that the RDEIR would have treated this issue comprehensively. Yet the analysis remains as technically flawed and legally deficient as the original DEIR.

In fact, the RDEIR's so-called analysis of biological impacts achieves a result exactly opposite from what CEQA requires. Under CEQA, decisionmakers and the public are to be given sufficient information about impacts and mitigation to come to

HFE-11

their own judgments and decisions. *See* Pub. Res. Code 21061. This RDEIR's strategy is to withhold information and to encourage the public and decisionmakers to trust that the applicant will ultimately mitigate the Project's impacts. The Project's critical discussion of biological impacts must explain exactly what will happen on the oil drilling site and the surrounding ecosystem if the Project goes forward. See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568 ("[T]he EIR must contain facts and analysis, not the agency's bare conclusions . . . ."). The RDEIR must offer some specific information about the consequences of this Project. It cannot, as the RDEIR does over and over again, merely acknowledge that the Project will have consequences and then assert that those consequences will be mitigated without providing evidentiary support. Thus, this document, like its predecessor remains inadequate under CEQA.

1. There Is No Evidence That the Impacts on Sensitive Species Will Be Reduced to a Less Than Significant Level.

The RDEIR should include a comprehensive analysis of impacts to animal species designated as "California Special Animals" ("CSAs"). The CDFG designates all species in the California Natural Diversity Data Base it is interested in tracking, regardless of their legal or protection status. *See* http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/spanimals.pdf and RDEIR at 4.2-19. The species on this list are also referred to as "species at risk" or "special status species." *Id.* CDFG considers the taxa on this list to be those of greatest conservation need. *Id.* Therefore, by all counts, CSA species should be explicitly included in an analysis of the Project's impacts on biological resources.

HFE-12

The RDEIR, like the DEIR before it, identifies a number of CSAs likely to occur on the Project site and in the immediate vicinity. RDEIR at Table 4.2-2. Yet, the RDEIR fails to analyze or mitigate impacts to these species. The RDEIR summarily concludes that these species are widespread in the Puente-Chino Hills and that any potentially adverse, Project-related impacts would be less than significant. RDEIR at 4.2-44. However, the RDEIR provides no evidence or documentation to support its conclusion. Accordingly, the RDEIR's analysis of impacts to CSAs is not adequate and mitigation measure BIO-1 is not sufficient to reduce impact BIO-1 to a less than significant level.

Furthermore, the RDEIR fails to adequately analyze and mitigate impacts to several California Species of Special Concern that the document acknowledges are found on the site. RDEIR at 4.2-22. For example, the Project will impact yellow-breasted chat, a California Species of Special Concern that largely utilizes riparian habitat. RDEIR at 4.2-8. The RDEIR concludes that mitigation measure BIO-1a, which addresses mitigation of native upland habitat rather than riparian habitat, is sufficient to mitigate

impacts to this species as well. RDEIR at 4.2-44. Impacts to the yellow-breasted chat and other riparian species should be included in mitigation measure BIO-2, which addresses impacts to riparian habitat. RDEIR at 4.2-28. Here, the RDEIR acknowledges significant noise impacts to species using riparian habitat (including the yellow-breasted chat), but understates these impacts by labeling them "temporary." RDEIR at 4.2-48. Given that the Project is scheduled to operate for approximately 25 years, the loss of this habitat can hardly be termed "temporary." For this reason, the RDEIR's proposed 1:1 mitigation for the so-called "temporary" loss of riparian habitat is not sufficient. HFE-13

The RDEIR also fails to adequately analyze and mitigate impacts related to loss of foraging and roosting habitat for sensitive bat species, such as pallid bat and pocketed free-tailed bat, which would contribute to these species' decline. RDEIR at 4.2-18. Despite the fact that the document acknowledges the likely presence of these species, the RDEIR fails to include surveys of the bat population on and adjacent to the Project site, and fails to quantify the impacts to the bats from habitat removal and other disturbances. RDEIR at 4.2-18 and 4.2-44. HFE-14

Finally, the RDEIR continues to ignore the Project's impacts to raptors and migratory birds during the non-breeding season. The document limits its analysis to direct disturbance by construction activity to nesting activities during breeding season. RDEIR at 4.2-53. As evidenced by objectives in the Resource Management Plan ("RMP") for the Preserve, the protection of both nesting and foraging habitat is critical to sustain raptors and migratory birds. *See* RMP Objective BIO-3.4 ("Protect and maintain nesting and foraging habitat for sensitive, threatened, or endangered raptor species. "); RDEIR at 4.2-38. The RDEIR does nothing to protect these species during the non-breeding season and simply ignores impacts related to loss of foraging and roosting habitat caused by the day-to-day operations of an oil drilling operation. This incomplete, ineffective mitigation fails to comply with CEQA. CEQA Guidelines § 15126.4(a)(1). HFE-15

2. There Is No Evidence That the Impacts on Core Habitat and Wildlife Nursery Sites Will Be Reduced to a Less Than Significant Level.

Perhaps most egregiously, the RDEIR understates potential impacts to core habitat and wildlife nursery sites within the Preserve. The RDEIR acknowledges the potential for significant impacts to core habitat and specifies that because "land use policies in the Whittier Hills and in the wider Chino-Puente hills region have been designed and implemented with an understanding that the lands that include the Project Site would be restored, maintained, and preserved…," loss and degradation of habitat in the Project area would have greater effects than in areas not occupying a nature preserve. RDEIR at 4.2- HFE-16

52. Yet, as described below, the RDEIR attempts to downplay the adverse effects of placing an oil rig operation within a nature preserve for the next 25 years.

Despite the fact that the Project would operate oil drilling operations at a site "known to provide some of the best habitat in the Preserve for bobcat" and characterized as a native wildlife nursery site for bobcat, the RDEIR concludes that impacts to this keystone species would be less than significant. RDEIR at 4.2-22 and 23, 4.2-35 and 4.2-53. Again, the RDEIR provides no evidence to support this conclusion. To the contrary, the RDEIR itself provides evidence that impacts would be significant. For example, the RDEIR concedes that "during the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in *all parts* of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species." RDEIR at 4.2-53; emphasis added. Yet, the document fails to analyze the impacts that these increases in operational noise and other disturbances would have on bobcat and other mammals. *See* RDEIR at 4.2-20 (making no mention of noise impacts on mammals).

Instead, the RDEIR rationalizes its omissions by asserting that former oil operations that took place "for decades" elsewhere in the vicinity resulted in no significant, long-term, adverse effects on local wildlife populations. RDEIR at 4.2-53. The RDEIR again provides no documentation or evidentiary support for this statement, but relies on it to conclude that the Project's impacts on bobcats and other wildlife would be less than significant. RDEIR at 4.2-53. Even if other projects have been implemented without adverse effects, the Project being evaluated in this RDEIR is the Project proposed and not some other project on a different site. Moreover, the baseline condition for the amount and quality of natural habitat now available is likely to be greatly changed from conditions 20 to 30 years ago so that impacts from other projects that took place decades ago are completely irrelevant to this Project.

In addition, the RDEIR continues to ignore acknowledged "residual" effects to sensitive wildlife species and federally protected riparian habitat, including: "impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" that cannot be completely eliminated through mitigation," "temporal losses that would occur before the restoration efforts provide functioning habitat" and "a compromised capacity to rebound from disruptive processes" due to an ecological system that is already under stress from surrounding intensive development. RDEIR at 4.2-48 and 4.2-50. The RDEIR, like its predecessor, fails to describe and quantify these effects and then concludes, without any evidence, that these impacts would not be significant. HFE-17

3. There Is No Evidence That the Impacts on Wildlife Movement Will Be Reduced to a Less Than Significant Level.

The RDEIR presents Project-related impacts on wildlife movement as being mainly related to (1) changes in movement through the Project Site due to increased noise, vibration, traffic and human presence and (2) increased mortality of wildlife due to vehicle strikes. RDEIR at 4.2-54 and 4.2-55. The RDEIR acknowledges the importance of preserving wildlife movement and avoiding habitat fragmentation. RDEIR at 4.2-22.

As in the DEIR, the mitigation measures identified here are a list of conventional measures such as installing sound walls, shielding lights, and avoiding direct impacts to nesting birds. RDEIR at 4.2-56-60. These measures fall far short of mitigation for the loss of habitat used to link this area to other crucial wildlands away from human disturbance. The RDEIR, however, claims that these mitigation measures would reduce the Project's "significant adverse impacts" on movement corridors to the "maximum amount feasible." RDEIR at 4.2-56. This assertion, even if it were true, does not support the ultimate conclusion that the Project would have less than significant impacts on such corridors. HFE-18

As we commented previously, the RDEIR should have considered mitigation that would create habitat linkages and opportunities for wildlife movement elsewhere. For example, the RMP makes specific recommendations for wildlife corridor maintenance. These include construction of a wildlife overpass (a vegetated wildlife bridge) over Colima Road to utilize the steep slopes on either side. RDEIR at 2.2-27. The RDEIR ignores these recommendations. Feasible mitigation to reduce the significant impact should include the RMP's recommendations, as well as establishment of new core habitat to offset permanent impacts to core habitat and key habitat linkages. Until the EIR identifies and analyzes such measures, it will remain inadequate.

B. The RDEIR's Analysis and Mitigation of Greenhouse Gas Emissions is Inadequate

Although the RDEIR acknowledges that the proposed Project would result in significant unavoidable impacts associated with greenhouse gas emissions and global climate change (at ES-23), the original document's failure to account for all sources of Project-related GHG emissions and reliance on insufficient mitigation are perpetuated in the RDEIR.

First, the RDEIR fails to include black carbon in its analysis of GHG emissions. Black carbon, a component of soot, is produced by incomplete combustion and is a HFE-19

significant contributor to global warming. As explained in the SMW DEIR letter, black carbon is estimated to be the second greatest contributor to global warming behind carbon dioxide. Diesel combustion is the main source of black carbon. Construction and operation of the Project will require the use of diesel powered trucks and equipment and will result in exceedances of particulate matter standards. RDEIR at ES-22 and ES-23. The Project will result in significant black carbon emissions. Yet, the RDEIR ignores this contributor to climate change when evaluating GHG emissions. Without an evaluation of black carbon emissions, this EIR remains legally inadequate.

Second, despite our detailed comments regarding the DEIR's failure with regard to mitigating Project-related GHG emissions, the RDEIR does little to remedy that failure. The measures listed in Mitigation Measure AQ-4 are vague, insubstantial, and non-binding, and thus cannot be relied on to mitigate Project impacts. Measures relied upon to mitigate impacts must be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines § 15126.4(a)(2). Similarly, they must actually be implemented, not merely adopted and then disregarded, and thus the mitigation must provide assurance that such implementation will in fact occur. *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1186-87; *Fed'n of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal. App. 4th 1252, 1261 . The greenhouse gas-related "mitigation measure" does not meet this standard.

HFE-20

The chief failure of the RDEIR GHG analysis is that it largely defers mitigation of GHG emissions. The RDEIR states that "mitigation measures could include a wide variety of measures, from onsite increased efficiency to offsite programs implemented in the community," RDEIR at 4.1-41. It goes on to list potential onsite and offsite measures, such as reduced facility water consumption, waste generation, and material use; recycling to the maximum extent feasible; using alternative fuels; sponsoring retrofitting of diesel buses with hybrid engines and methane-capture technology projects. *Id.* Yet, the RDEIR does not commit to any of the potential methods for emission reduction.

The only measure included to address admittedly significant and unavoidable impacts calls for the implementation of an unspecified program to quantify and reduce greenhouse gas emissions at some future date. To make matters worse, the measure is non-committal. It only commits to annual monitoring of emissions with deferred implementation of reduction measures despite the fact that the RDEIR acknowledges that Project-related emissions will exceed Air District thresholds. RDEIR at 4.1-42

In addition, the RDEIR provides no evidentiary support that the proposed "measures" would effectively reduce GHG emissions. For example, the document calls for the Project to incorporate green electrical power or alternative fuels that "could" offset GHG emissions. *Id.* Aside from the fact that the measure clearly indicates that it may or may not be effective, the document's bare-bones description of these alternative energy options does not allow decision makers and the public to evaluate the potential for their implementation or to determine whether the measures would in fact reduce GHG emissions, let alone to determine what quantity of emissions they would eliminate. A conclusion that a measure will be effective in mitigating an impact must be supported by substantial evidence. *Gray v. County of Madera* (2008) 167 Cal. App. 4th 1099, 1115-18; see also *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal. App. 3d 61, 79 (measures must not be so vague that it is impossible to gauge their effectiveness). In the absence of such evidence, the measures identified here are plainly inadequate.

Moreover, the RDEIR fails to provide a quantitative estimate of emission reductions. Instead, it simply concludes that "A combination of these mitigation measures *could* reduce the GHG emissions to below the SCAQMD threshold of 10,000 tons per year. However, the ability to implement some of these measures is uncertain; therefore, the impacts would still be potentially significant and unmitigable." RDEIR at 4.1-43. The RDEIR must either generate an emission reduction estimate or explain, based on substantial evidence, why doing so would be infeasible. See *Berkeley Keep Jets Over the Bay vs. Bd. of Port Comm'rs* (2001) 91 Cal. App. 4th at 1370-71; *Citizens to Preserve the Ojai v. County of Ventura* (1985) 176 Cal. App. 3d 421, 430. Without that estimate, the public and decision maker cannot determine the extent to which the proposed measure in fact would reduce emissions. Unless and until the EIR develops a concrete mitigation plan, this environmental review will remain inadequate. HFE-21

C. The RDEIR Provides No Evidence That Impacts Related to Trenching for Additional Firewater Supplies Would Be Less Than Significant.

The RDEIR identifies potential impacts to biological resources resulting from implementation of mitigation measures to reduce Project-related impacts. RDEIR at 4.2-62. CEQA requires that an EIR analyze the effects of such impacts. Specifically, "if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the Project as proposed" the effects must be analyzed. CEQA Guidelines §15126.4(a)(1)(D). This RDEIR provides no such analysis and provides little information about the mitigation to be implemented.

HFE-22

The document states only that trenching across an area of the Preserve would be required to supply additional firewater supplies. RDEIR at 4.2-62. It provides no information on the location of the trenching, the amount of disturbance, or the length of time that such construction would take place. *Id.* Instead, it concludes that the trenching will be minimal and will not increase the severity of Project's impacts and that no additional analysis or mitigation is required. *Id.* In direct violation of CEQA, the RDEIR's conclusion that this required mitigation measure would not result in additional impacts is wholly unsupported by evidence or analysis. *Kings County*, 221 Cal.App.31 at 692.

D. The RDEIR Provides Insufficient Analysis and Mitigation of the Project's Cumulative Impacts

Not surprisingly, the RDEIR fails to correct the DEIR's failures with regard to analysis of cumulative impacts. For example, the RDEIR fails to provide any meaningful discussion of impacts to sensitive habitats resulting from past, present, and probable future projects. The RDEIR acknowledges that increased noise from Project-related oil production activities would result in cumulatively considerable impacts on biological resources. RDEIR at 4.2-63. However, absent any evidence, the EIR concludes that the Project would not make a cumulatively considerable contribution to significant cumulative impacts. *See* RDEIR Table ES-2 at ES22 through 24 (no mention of significant unavoidable cumulative impacts).

HFE-23

The RDEIR identifies potentially significant cumulative impacts to sensitive species and the ecological systems within the Preserve, stating that the Preserve is particularly vulnerable to stresses from cumulative conditions because it is an "already stressed system." RDEIR at 4.2-65. It also acknowledges potentially significant cumulative impacts to wildlife movement. *Id.* Yet, the mitigation proposed for this significant cumulative impact amounts to nothing more than a promise that Matrix's Sycamore Canyon operations comply with existing law. RDEIR at 4.2-65. This approach fails to comply with CEQA on two fronts. First, the RDEIR provides no quantitative evidence that compliance with the City's Noise Ordinance would ensure that either project-level or cumulative noise impacts would be less than significant. Without substantial evidence supporting the conclusion that mitigation would be effective, the EIR remains inadequate.

Second, the RDEIR concludes that if the Project and the other contributing projects each mitigate their individual impacts on sensitive wildlife and habitat, there would result no cumulative impacts. The EIR in essence reasons that a less than significant project-level impact never makes a cumulatively considerable contribution to

a cumulative impact. As explained in the SMW DEIR letter, this approach to cumulative analysis is a plain violation of CEQA. An EIR may not conclude that a project will not contribute to cumulative impacts simply because it has a less than significant impact on a project level. See *Kings County*, 221 Cal.App.31 at 720-21. The purpose of analyzing cumulative impacts is to determine whether a collection of less than significant impacts may combine to be cumulatively considerable. HFE-24

Moreover, the mitigation measures for identified cumulative impacts on biological resources only address noise-related impacts. Cumulative impacts related to increased human activity, increased risk of fire, and loss of habitat are not addressed. HFE-25

The RDEIR's analysis of cumulative impacts related to climate change is so minimal as to be meaningless. The entire analysis consists of the following two sentences: "Emissions of GHG would contribute to global GHG emissions. Since they would be significant, cumulative impacts could also be significant." RDEIR at 4.1-47. The RDEIR's dismissive approach to cumulative impacts on climate change are especially troubling given the grave threats posed by the cumulative impact of additional new sources of emissions into an environment where deep reductions from existing emission levels are necessary to avert the worst consequences of global warming. See *Communities for Better Env't v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 120 ("[T]he greater the existing environmental problems are, the lower the threshold for treating a project's contribution to cumulative impacts as significant."); see also *Center for Biological Diversity v. National Highway Traffic Safety Administration* (9th Cir. 2007) 508 F.3d 508, 550 ("[W]e cannot afford to ignore even modest contributions to global warming."). HFE-26

In approving the Project, the City is likely allowing ongoing noise pollution resulting in significant cumulative impacts to the Preserve and surrounding wildlands for the next 25 years – but under the "trust us" approach favored by the EIR nobody would know the severity of the impacts until after Project approval. Furthermore, the RDEIR provides no information at all on the Project's potential cumulative impacts related to GHG emissions. In order to assess impacts intelligently, the City Council must know what contribution its approval of the Project would make to environmental impacts over the long-term HFE-27

E. The RDEIR Does Not Consider an Reasonable Range of Alternatives

Under CEQA, an EIR must analyze a reasonable range of alternatives to the proposed project; a reasonable alternative is one that would feasibly attain most of the project's basic objectives while avoiding or substantially lessening the project's

significant impacts. See Pub. Res. Code § 21100(b)(4); CEQA Guidelines § 15126.6(a); *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal. App. 3d 433, 443-45. The RDEIR's alternatives analysis fails to meet this standard on two counts: it fails to analyze a reasonable range of alternatives that could significantly reduce the Project's impacts and prematurely dismisses the one alternative proposed that may reduce impacts. Moreover, it fails to accurately identify the environmentally superior alternative, as CEQA requires. CEQA Guidelines § 15126.6(e)(2)

First, the RDEIR still fails to provide a reasonable range of alternatives that would avoid or lesson the significant impacts of the Project. The DEIR previously presented two alternatives, neither of which reduced impacts to the Preserve. The RDEIR offers only one additional alternative: the Savage Canyon Landfill Alternative ("Landfill Alternative"). The RDEIR's screening criteria for alternative drilling sites excludes other drilling sites outside the Preserve because they are not a "sufficient distance from populations." RDEIR at 5-6. However, the rationale for excluding such sites is suspect given that the proposed Project is located within 1000 feet of homes, schools, churches and recreational activities. If the proposed site is not excluded from consideration due to its proximity to existing development, other potential drilling sites should also be considered. HFE-28

Similarly, the RDEIR excludes the North Site Alternative despite the fact that this alternative would reduce impacts to biological resources in the Preserve. RDEIR at 5-11. The RDEIR concludes that increased aesthetic impacts and closer proximity to residences and recreational areas "are considered to be greater than the advantages to biology." *Id.* As is characteristic of the RDEIR as a whole, the document provides no evidence to support this conclusion. Given the significant impacts proposed to this important wildlife Preserve, the EIR is obliged to analyze this feasible alternative that could avoid or substantially lessen biological resource impacts.

Second, while the RDEIR acknowledges that the Landfill Alternative would provide significantly reduced environmental impacts related to biology, public safety, noise, air quality and odors; it prematurely dismisses that alternative without providing evidentiary support for its conclusion. The RDEIR claims that the Landfill Alternative would result in a reduction in the amount of oil that could be recovered, thus preventing the alternative from achieving *all* of the Project objectives. RDEIR at 6-57. However, the fact that the alternative would not achieve *all* of the objectives is not a sufficient basis for rejecting an alternative. CEQA does not provide that all of the applicant's objectives must be met. Instead it specifies that the alternatives analysis describe a "a reasonable range of alternatives…which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects…" CEQA HFE-29

Guidelines §15126.6(a). Here, the Landfill Alternative would attain all of the objectives save Matrix' objective of reaping the largest profit.

The fact that Matrix cannot achieve the same economic objective from developing the Savage Canyon Landfill site is not determinative. The issue is not whether the alternative is less profitable than the Project as proposed, but whether the reduced profitability of the alternative is " 'sufficiently severe as to render it impractical to proceed with the project.' *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1461-62, 70 Cal. Rptr. 3d 59, 81 (Cal. Ct. App. 2007).

The RDEIR also dismisses the Landfill Alternative by claiming that the drilling at this location would require "significant, time-consuming amendments to existing state Landfill permits, which would create land use impacts." Such impacts are not legally sufficient reasons to dismiss an alternative. Because, as discussed below, the Landfill Alternative is environmentally superior to the proposed Project and would meet most of the Project objectives, it may only be dismissed if it is infeasible. The need for a permit or other planning approvals does not establish an alternative's infeasibility. See *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal. App. 4th 1437, 1459. HFE-30

Under CEQA, an agency may not approve a proposed project if a feasible alternative exists that would meet most of the project's objectives and would diminish or avoid its significant environmental impacts. Pub. Res. Code § 21002; *Kings County Farm Bureau*, 221 Cal.App.3d at 731. Given the extensive environmental impacts this Project will have, the consideration of alternatives will not be complete until an EIR presents decision-makers and the public with a rigorous, good-faith assessment of options that reduce the environmental consequences of the Project.

The EIR further fails to properly identify an environmentally superior alternative, labeling the proposed Project as such even though the Landfill Alternative is, by the EIR's own analysis, clearly environmentally superior. The RDEIR partly bases this conclusion on the assertion that the landfill alternative would cause a significant and unavoidable land use impact while the Project would not, but that contention is absurd. As discussed above the Project would, in fact, have several significant and unavoidable impacts related to land use—after all, the Project proposes to drill for oil in the middle of a wildlife preserve. By contrast, the only such impact that the RDEIR identifies for the Landfill Alternative relates to the need for a permit to operate the facilities on the landfill. Given that such a permit is available, this does not appear to be any sort of a land use conflict, let alone a significant and unavoidable one. Thus, the proposed Project has more significant and unavoidable impacts than the Landfill Alternative. And even if the EIR were correct on this count, the Landfill Alternative would have the same number of

significant and unavoidable impacts as the proposed Project, while improving on the Project in many other areas. According to the EIR, the Landfill Alternative would reduce the Project's impacts in eight impact areas. RDEIR at Table 6.3. This is likely understated, as the EIR underestimates several of the proposed Project's impacts.

The EIR thus makes a strong case that the Savage Canyon Landfill location is environmentally superior to the proposed Project site. It concludes, however, that the Project is in fact superior. It reaches this illogical conclusion with reasoning that has no place in an environmental document: HFE-31

> [W]ith the Landfill Alternative, there would be a potential reduction to the Landfill life and there would be difficulties associated with permitting the alternative within an operating landfill. There would also be a reduction in recoverable reserves from the reservoir thereby preventing this alternative from achieving all of the Project objectives.

RDEIR at 6.57

This explanation has nothing to do with the alternative's environmental impacts. The "difficulties" of permitting and the amount of recoverable oil do not make the alternative inferior, they simply make it less desirable for the applicant. But the RDEIR cannot, legally, take account of the oil company's interests in this analysis. It must make an independent analysis of environmental impacts. In that light, it is clear that the Landfill Alternative is environmentally superior. The EIR must identify it as such. Moreover, because the alternative is feasible and meets the Project's objectives, the City Council may not approve the Project. Pub. Res. Code § 21002.

CONCLUSION

For the foregoing reasons, Hills for Everyone urges the City to delay further consideration of the Whittier Main Oil Field Development Project unless and until the City prepares and recirculates a revised draft EIR that fully complies with CEQA and the CEQA Guidelines.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Gabriel Ross CJB

Gabriel Ross

Carmen J. Borg, AICP, Urban Planner

cc: Claire Schlotterbeck, Hills For Everyone
Andrea Gullo, Puente Hills Landfill Native Habitat Preservation Authority
Judy Tamasi, Wildlife Corridor Conservation Authority

Attachments:

Exhibit A: SMW Comment Letter on DEIR, dated December 6, 2010.

Exhibit B: Statement for Receipts and Disbursements for the Puente Hills Landfill Native Habitat Preservation Authority

\\Smw01\wol1_data\HILLS\Whit\Whittier Oil Second DEIR Comments (June 2011)v4.doc

COUNTY OF LOS ANGELES
DEPARTMENT OF AUDITOR-CONTROLLER

KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET, ROOM 525
LOS ANGELES, CALIFORNIA 90012-3873
PHONE: (213) 974-8301 FAX: (213) 626-5427

WENDY L. WATANABE
AUDITOR-CONTROLLER

ADDRESS ALL CORRESPONDENCE TO:
ACCOUNTING DIVISION
500 W. TEMPLE ST., ROOM 603
LOS ANGELES, CA 90012-2713

July 12, 2011

Mr. Thomas J. Mueller
County Sanitation Districts of Los Angeles County
P. O. Box 4998
Whittier, CA 90607-4998

Dear Mr. Mueller:

Enclosed is the Statement of Receipts and Disbursements for the Puente Hills Landfill Native Habitat Preservation Authority for the quarter ending June 30, 2011.

If you have any questions, please contact Rachelle Anema at (213) 974-8327 or Rachel Rosario at (213) 974-8345.

Very truly yours,

Wendy L. Watanabe
Auditor-Controller

Connie Yee, Division Chief
Accounting Division

WLW:JN:CY:RA:rr
H:\Special Funds\Special Funds Unit\JOINT POWERS AUTHORITIES\PUENTE HILLS LANDFILL\LETTERS\FY10-11\Cover Letter-PH Landfill 4th Qtr FY10-11.doc

Enclosure

c: Lori Rising, Los Angeles County Sanitation District
Andrea Gullo, Executive Director, Habitat Authority

LOS ANGELES COUNTY - PUENTE HILLS LANDFILL NATIVE HABITAT PRESERVATION AUTHORITY
STATEMENT OF RECEIPTS AND DISBURSEMENTS
APRIL 1, 2011 THROUGH JUNE 30, 2011

			Fund PS5
Cash Balance, April 1, 2011		$	29,150,313.62
Receipts:			
Interest		$	90,033.07
Deposit Permit #CKSD0040411	04/04/11		5,990.82
Deposit Permit #CKSD0042911	04/29/11		6,777.68
JVA NS JS0411-0140 Correct DP#13322	04/29/11		5,975.21
Deposit Permit #CASD0050211	05/02/11		130.00
Deposit Permit #CKSD0050211	05/02/11		104.09
Deposit Permit #CKSD0060911	06/09/11		6,027.01
Deposit Permit #CKSD0062211	06/22/11		67,868.91
Total Balance and Receipts		$	29,333,220.41
Disbursements:			
Friendly Hills Estates Homeowners Association	04/06/11	$	1,800.00
City of Whittier	04/06/11		98,187.08
Mountains Recreation & Conservation Authority	04/06/11		30,626.63
Nakae & Associates	04/06/11		9,051.87
City of Whittier	05/05/11		1,768.80
City of Whittier	05/05/11		30,021.49
Mountains Recreation & Conservation Authority	05/05/11		29,484.21
Nakae & Associates	05/05/11		1,103.40
Nakae & Associates	05/05/11		351.00
Nakae & Associates	05/05/11		3,856.50
Laurie Collins	05/05/11		2,056.25
Glenn Lukos Associates, Inc.	06/20/11		4,843.39
Nakae & Associates	06/20/11		13,298.98
Nakae & Associates	06/20/11		21,120.30
Nakae & Associates	06/20/11		999.00
Laurie Collins	06/20/11		3,543.75
Los Angeles County, Dept. of Auditor-Controller	06/20/11		3,990.40
City of Whittier	06/21/11		50,582.71
Mountains Recreation & Conservation Authority	06/21/11		29,293.97
Phillips and Jordan Inc.	06/29/11		36,020.00
Total Disbursements		$	371,999.73
Adjusted Cash Balance, June 30, 2011		**$**	**28,961,220.68**

Prepared by
Los Angeles County
Department of Auditor-Controller
Accounting Division
RRR

BioMedSearch

Enter Search Keywords

- Home
- Advanced Search
- Tools
- Search Tutorial

Login |Create Free Account

Document Detail

Noise impacts on birds: Assessing take of endangered species.

MedLine Citation: PMID: 18190133 Owner: NLM Status: In-Data-Review

Abstract/OtherAbstract: Section 9 of the Endangered Species Act makes it illegal to take (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect) an endangered species. Harass includes any action that would significantly disrupt normal behavioral patterns including breeding, feeding, or sheltering. "Harm" includes any action that actually kills or injures a listed species. To better understand how and to what extent anthropogenic noise can harm or harass birds, we examined the potential for noise effects at three levels: Physiological stress, hearing impairment, and interference with communication through signal masking. Pile driving and blasting ([approximately-equal-to]100 dBA at 15 m) can potentially cause temporary or permanent hearing impairment in birds. Chronic intense noise (e.g., oil field compressor station: 92 dBA at 20 m) may induce physiological stress in some species if they cannot avoid exposure. Finally, highway noise as low as 45 dBA can potentially mask acoustic communication and modify breeding and other behaviors in many species. Thresholds of effect and effect distances are largely species-specific, reflecting differences in tolerance capacity, spacing requirements, and bioacoustic profiles. Indices of take can be physiological, behavioral, or ecological, but must be verifiably correlated with significant changes in species viability.

Authors: Edward W West; Robert J Dooling; Arthur N Popper; David M Buehler

Related Documents :
17255013 - Critical threshold effects of benthiscape structure on stream herbivore movement.
17300733 - Rapid evolution in response to introduced predators i: rates and patterns of morphologi...
19718203 - Sublevel echoes selectively excited by light-pulse trains: synchronized-quantum-beat ec...

Publication Detail: Type: Journal Article

Journal Detail: Title: The Journal of the Acoustical Society of America Volume: 122 ISSN: 1520-8524 ISO Abbreviation: J. Acoust. Soc. Am. Publication Date: 2007 Nov

Date Detail: Created Date: 2008-01-14 Completed Date: - Revised Date: -

Medline Journal Info: Nlm Unique ID: 7503051 Medline TA: J Acoust Soc Am Country: United States

Other Details: Languages: eng Pagination: 3082 Citation Subset: IM

Affiliation: Jones & Stokes, Inc., 2600 V St., Sacramento, CA 95818Univ. of Maryland, College Park, MD 20742Jones & Stokes, Inc., Sacramento, CA 95818.

Export Citation: APA/MLA Format Download EndNote Download BibTex

MeSH Terms

Descriptor/Qualifier:

From MEDLINE®/PubMed®, a database of the U.S. National Library of Medicine

Previous Document: Environmental noise: Is there any significant influence on animals?
Next Document: Speech intelligibility in a passenger train compartment.

© 2009-2010 BioMedSearch.com. All rights reserved

Contact Us | About Us | Privacy Policy & Terms of Use

Appendix M

Printed from
THE TIMES OF INDIA

Oil wells rattle migratory birds at Thol

Pramod Panwar, TNN, Dec 5, 2010, 10.42pm IST

PALANPUR: Thol Lake bird sanctuary in Mehsana district, about 50 km from Ahmedabad on Ka abode for variety of birds. But, the famous wetland has of late been losing popularity among the v

"Global warming does have a negative impact on the habitat, but what is turning birds away fron by activities in oil wells in the surrounding areas," said Lala Desai, range forest officer at Thol lak

Desai, who has been posted in area for long, said, "Every day the Oil and Natural Gas Corporatio pipelines for work. This generates deafening noise identical to that of the landing of an aircraft." higher, get scared and fly away in fear.

Among the winged guests whose number has been on a constant decline are flamingoes that wou kingfisher. "Birds like grebes, cormorants, darters, egrets, spoonbills, pelicans, partridges and ho African and Siberian species can be noticed here but their number has gone down," Desai said.

"Winter is the time for laying eggs and variety of birds visit the lake. The huge sound generated b birds, while fumes and toxic gases that are emitted affect the mating period and breeding ratio," s

"To a great extent, the sanctuary has been affected by disturbances caused by factories located in (GIDC) premises, two km from the birds' habitat. Visitors to the lake, particularly on Sunday and make noises and throw plastic bags in the vicinity of the lake," said Namrata Bhawsar, founder o awareness about environment for about 20 years.

A senior ONGC official said the corporation would take care if its operation in the area was causi valves makes loud noise that harms migratory birds at Thol, we would certainly look into the issu numbers 115 and 117 are the ones making noise, I will direct the ONGC officials concerned to rect executive director, ONGC, Ahmedabad.

Unique wetland

Spread over an area of 700 hectare, Thol bird sanctuary is a unique wetland area with assembled another. More than 200 species of birds reportedly nest here. Besides, 90 species of waterfowl ha the lake was considered a safe haven for birds, and a visual delight for bird-watchers.

THE TIMES OF INDIA
Powered by *INDIATIMES*

About us Advertise with us Terms of use Privacy policy Feedback
RSS Newsletter TOI Mobile ePaper Sitemap Archives

Other Times Group news sites **Living and entertainment** **Hot on the Web** **Services**

The Economic Times | इकनॉमिक टाइम्स
ઈકોનોમિક ટાઈમ્સ | Mumbai Mirror
Times Now | Indiatimes
नवभारत टाइम्स | महाराष्ट्र टाइम्स

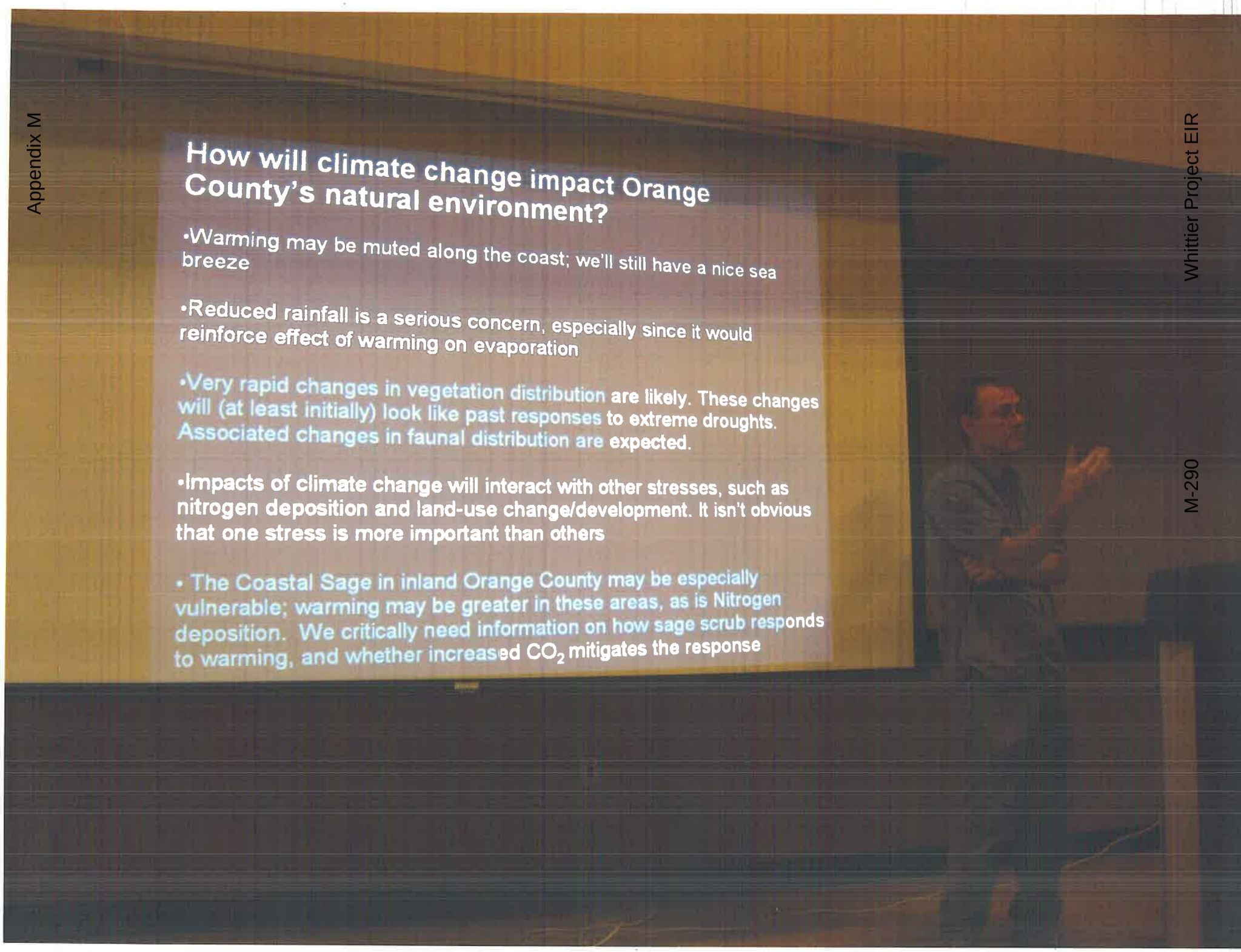
Timescity | iDiva | Bollywood | Zoom

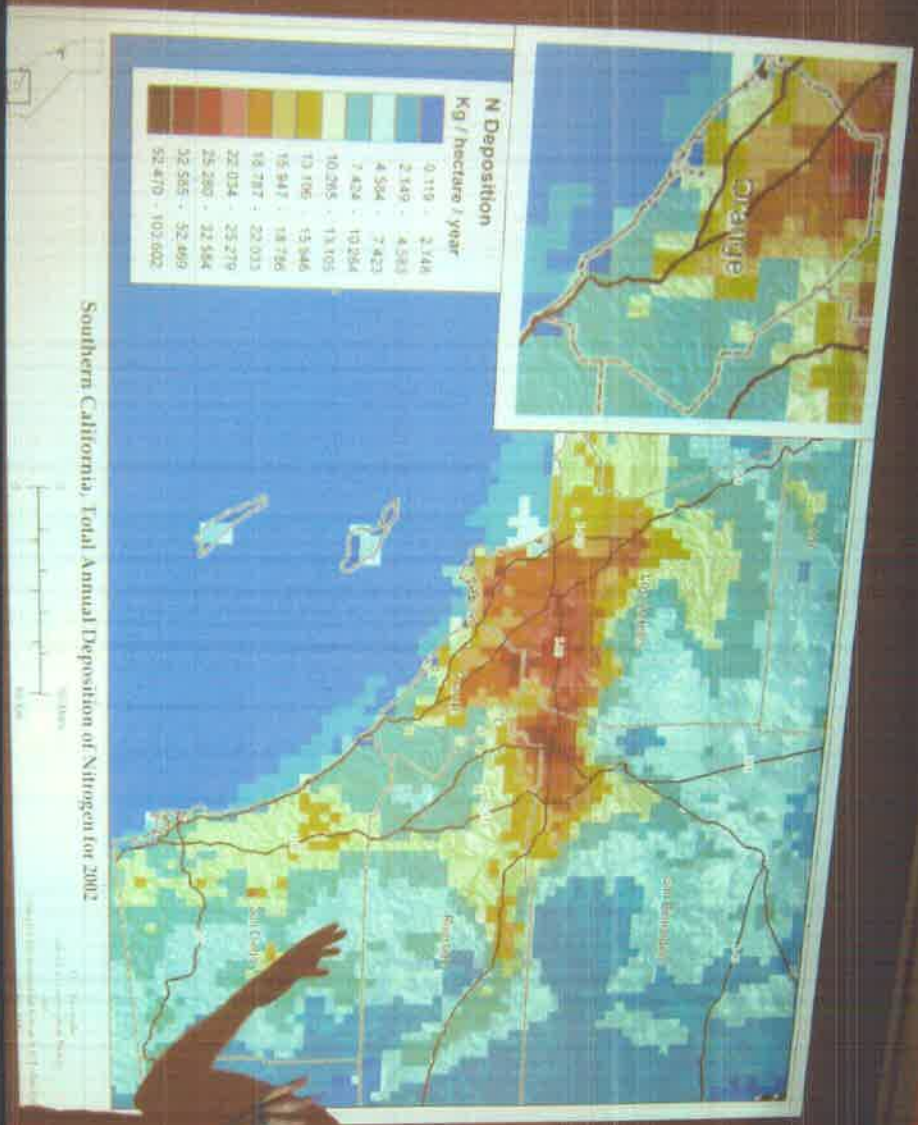
Network
itimes | Dating & Chat | Email

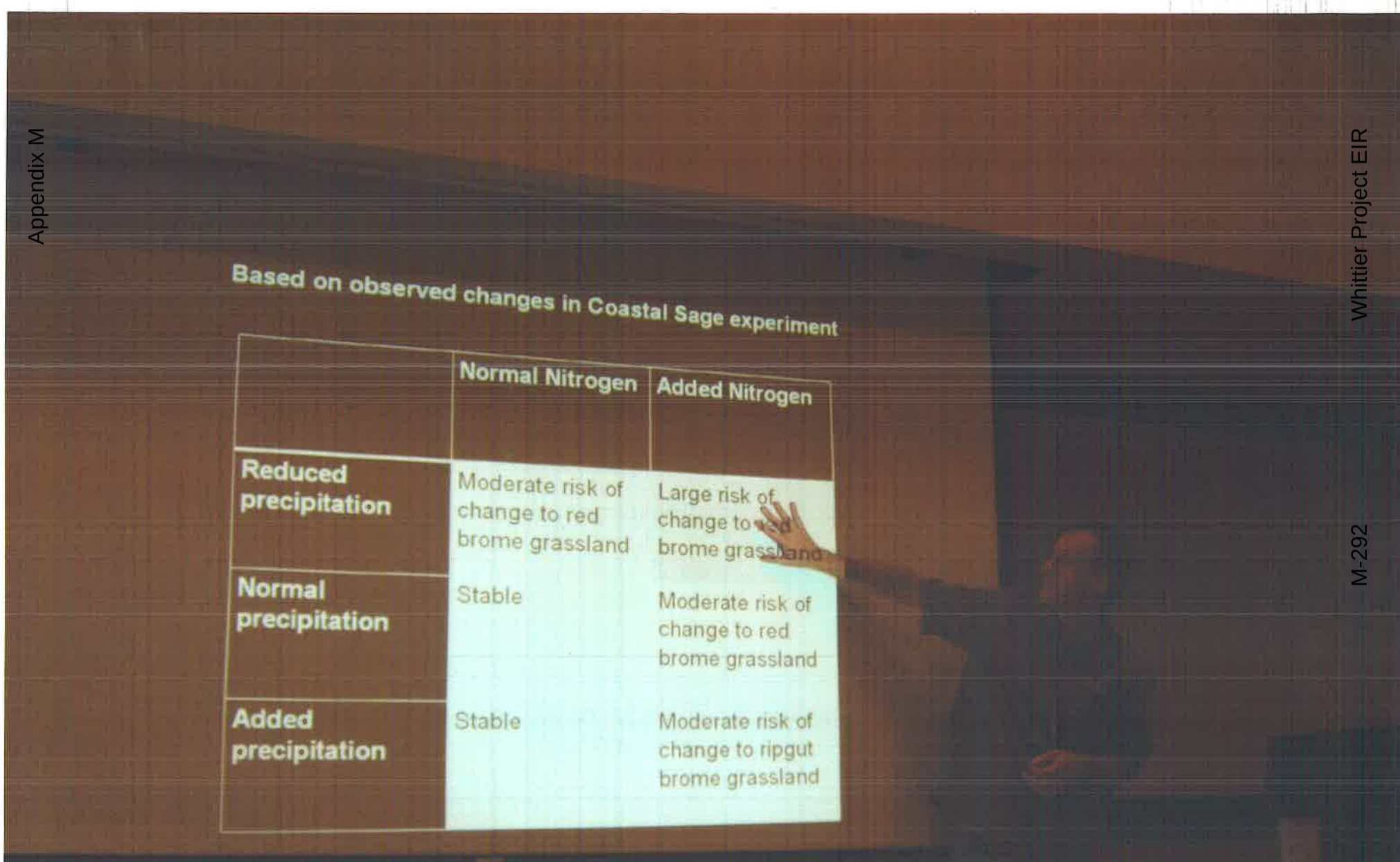
Hotklix

Book print ads | Onli
Business email | Fre
Cheap air tickets | M
eGreetings

Copyright © 2010 Bennett, Coleman & Co. Ltd. All rights reserved. For reprint rights: Times


How will climate change impact Orange County's natural environment?
•Warming may be muted along the coast; we'll still have a nice sea breeze
•Reduced rainfall is a serious concern, especially since it would reinforce effect of warming on evaporation
•Very rapid changes in vegetation distribution are likely. These changes will (at least initially) look like past responses to extreme droughts. Associated changes in faunal distribution are expected.
•Impacts of climate change will interact with other stresses, such as nitrogen deposition and land-use change/development. It isn't obvious that one stress is more important than others
• The Coastal Sage in inland Orange County may be especially vulnerable; warming may be greater in these areas, as is Nitrogen deposition. We critically need information on how sage scrub responds to warming, and whether increased CO_2 mitigates the response


N Deposition
Kg / hectare / year
0.119 - 2.148
2.149 - 4.583
4.584 - 7.423
7.424 - 10.284
10.285 - 13.105
13.106 - 15.946
15.947 - 18.786
18.787 - 22.033
22.034 - 25.279
25.280 - 32.584
32.585 - 52.469
52.470 - 103.602
Orange
Southern California, Total Annual Deposition of Nitrogen for 2002



Based on observed changes in Coastal Sage experiment

	Normal Nitrogen	Added Nitrogen
Reduced precipitation	Moderate risk of change to red brome grassland	Large risk of change to red brome grassland
Normal precipitation	Stable	Moderate risk of change to red brome grassland
Added precipitation	Stable	Moderate risk of change to ripgut brome grassland

The Effect Of Noise On Wildlife: A Literature Review

Author: Autumn Lyn Radle

Abstract: Noise pollution, as it effects humans, has been a recognized problem for decades, but the effect of noise on wildlife has only recently been considered a potential threat to animal health and long-term survival. Research into the effects of noise on wildlife, which has been growing rapidly since the 1970s, often presents conflicting results because of the variety of factors and variables that can effect and/or interfere with the determination of the actual effects that human-produced noise is having on any given creature. Both land and marine wildlife have been studied, especially in regards to noise in the National Parks System and the onslaught of human- made cacophony in the oceans from military, commercial and scientific endeavors.

Most researchers agree that noise can effect an animal's physiology and behavior, and if it becomes a chronic stress, noise can be injurious to an animal's energy budget, reproductive success and long-term survival. Armed with this understanding it should follow that humans would attempt to minimize the threat to wildlife by reducing the amount of noise that they are exposed to in natural areas; but this has not been the situation. Natural areas continue to be degraded by human-made noise, wildlife continues to suffer from these disturbances, and to date the majority of the debate revolves around the egocentric demands of people to either produce more noise in nature (through motorized recreation, scientific research, military exercises etc.) or experience natural areas in the absence of anthropogenic noise. Neither side has adequately addressed the issue from the biocentric view of wildlife and the known, or as yet undiscovered, damage that our increasingly noisy human-altered environment is inflicting upon them.

Table of Contents

- Introduction
- Determining The Effects of Noise On Wildlife
- Research Into The Effect of Noise On Terrestrial Wildlife During The 1970's
- Research Into The Effects of Noise On Terrestrial Wildlife During The 1980's
- Research Into The Effect of Noise On Terrestrial Wildlife During the 1990's
- Noise In The National Parks
- Research Into The Effects of Noise On Marine Wildlife
- Acoustic Thermomentry of Ocean Climate
- Summary
- References

INTRODUCTION

People are becoming increasingly aware of and disturbed by the cacophony of sounds in the environment. More often than not these sounds are loud, intrusive and unwelcome side-effects of our fast-paced, progress-motivated society. While tolerating noise in our urban and even suburban environment may seem like a necessary compromise for the services, improved construction and transportation we receive in return, noise in the natural

environment is much less palatable. As more and more people seek temporary escape from the confines and clamor of the built environment and seek solace in our National Parks and other land and water wilderness areas, they are noticing the absence of quiet, let alone natural silence that once predominated a wilderness experience.

As avid environmentalists and weekend naturalists alike rally a defense against the noise-makers in industrial tourism, the military, commercial airlines, and scientific research, a nagging question lurks in back of some minds: What about the animals in these noise-riddled environments? In many areas wildlife are being subjected to noise at a greater frequency and intensity than perhaps ever before in their evolutionary history. While noise has been considered a pollutant in the human environment for decades, noise in the natural environment has not been framed as such until quite recently.

Although we recognize that noise can affect humans psychologically and be physically injurious, little attention has been paid to the potential effects that noise may have on individual animals and populations within an area. This ignorance of the potential harm that could be caused by our own actions and the inertia with which research and concern about the issue has grown is symptomatic of the anthropocentric way in which we value and view the world. Wanting to reduce the human-produced din in natural areas for the sake of our solitude is not unjust, but failure to consider the effects on other life within those areas epitomizes the arrogance and egocentrism with which we typically approach and subsequently degrade the environment. We must ask ourselves, as the debate over man-made noise in natural areas becomes more heated, how much we value life beyond that which exists in the human form. Are we willing to protect wildlife from the onslaught of airplanes, helicopters, ships and scientific experiments that generate colossal noise at the expense of our traveling convenience, our military advancement, and scientific discovery? The verdict is yet undecided because to date we do not have conclusive evidence of the effects of noise on wildlife (which in and of itself may be indicative of our apathy and lack of inclination to discover the effects expediently).

The following discussion will introduce the problem of noise in natural areas, review both historical and more recent research into the effects that noise may inflict on wildlife, and disclose the current challenges and policies that are facing the American people today in choosing between natural quiet and other desirables of civilization.

DETERMINING THE EFFECTS OF NOISE ON WILDLIFE

The study of acoustic ecology began in the late 1970s, but it has just recently been recognized as a useful means for determining the health of both marine and terrestrial habitats (Krause, 1993). In his article "Niche Hypothesis", Bernard Krause suggests that every creature has an "aural niche" or its own particular voice and specific place in a habitat based on the relative frequency, amplitude, timbre and duration of the sound it produces. Taken together, the vocalizations of all the creatures in a given habitat zone produce a unique vocal fingerprint which Krause believes can be used to infer the biological integrity of the area. With increasing destruction and loss of habitat, many creatures are forced into different areas with consequently different aural zones in which they lack an established niche. The inability of creatures to successfully communicate or otherwise employ their auditory senses is detrimental to the long-term survival of these displaced creatures and the overall biological intergrity of the environment. Krause thus argues that in natural areas "...the sounds of each of these zones are so unique and important to creature life in a given location..." that disturbance to this soundscape could be detrimental to the future of the individuals, populations or entire species (Krause, 1993).

Determining the effect of noise on wildlife is complicated however because responses vary between species and between individuals of a single population. These variable responses are due to the characteristics of the noise and its duration, the life history characteristics of the species, habitat type, season, activity at the time of exposure, sex and age of the individual, level of previous exposure, and whether other physical stresses such as drought are occurring around the time of exposure (Busnel, 1978).

In determining the effects of aircraft stimuli on wildlife Congress issued a report that collaborated the complexity of determining the effects on wildlife due to the various factors that influence an individual's response. Chapter Five of the Report on the Effects of Aircraft Overflights on the National Park System discusses the differences in perception of stimuli based on the physical environment and the psychological attributes of the animal at the time of its exposure. The report states that: "Some habitats enhance stimuli associated with aircraft overflights. The sound and visual stimuli associated with aircraft have different effects in an open desert than in a forest where trees can obscure the sight and may reduce the sound of aircraft." In addition the report surmised that "One relationship between aircraft and animals is clear: the closer the aircraft, the greater the probability that an animal will respond...Unfortunately, there is no particular overflight altitude at which all animals are or are not disturbed." Thus determining the effects of noise on wildlife is not an easy endeavor. The following section will examine the historical studies that often support the findings of Congress and that helped direct the most recent research and discoveries.

RESEARCH INTO THE EFFECT OF NOISE ON TERRESTRIAL WILDLIFE DURING THE 1970s

The 1970s heralded an increase in scientific interest into the effects of noise on wildlife. In 1975 Dorrance et. al published an article that probed the issue of the effects of snowmobile noise on white tailed deer. Between 1973 and 1974 they studied the responses of a population of Odocoileus viginianus in Minnesota's St. Croix State Park that was exposed to up to 195 snowmobiles per day compared to the responses of a control population on Mille Laes Wildlife Management Area that had never been exposed to snowmobile noise. While the deer at St. Croix State Park seemed to have become habituated to the noise of the snowmobiles due to years of previous exposure, the deer at Mille Laes Wildlife Management Area appeared to increase their home range size and avoided the snowmobile trails as snowmobile activity increased. In Mille Laes "deer responded to very low intensities of intrusion by man and vehicles. Some deer were particularly sensitive to intrusion by man and vehicle and changed their home ranges to entirely different locations." The scientists acknowledged that this avoidance of snowmobiles and the extra movement that avoidance necessitates could change the Mille Laes deer's energy budgets such that they would be expending more energy than they were conserving. The resulting energy deficit would thus endanger the animals' health during the winter season.

Even though the St. Croix deer appear habituated to the stimuli of snowmobile's the researchers recommended that in both populations the snowmobilists should avoid areas of high deer concentration and avoid use of any one trail on consecutive days to minimize detected and possible undetected injurious effects.

Noise: The New Menace was published by Lucy Kavaler in 1975 and included various sections on the hazards of noise to wildlife. Kavaler reminded readers in the mid 1970s that the first determinants of the effect of noise on wildlife were conducted in laboratories rather than in the field. During these studies it was concluded that the most readily observable effect was harm to hearing and/or deafness due to damage to the sensory cells of the inner ear and

adjacent nerve endings and hair cells. Disorientation, nausea, and signs of alarm were also common responses. Kavaler also called attention to the study of the little cotton rat which "...however fragmentary, is one of the few that has been made anywhere to date that considers the possible effect of noise on the ecosystem of an area."

The study of the little cotton rat, Sigmodon hispidus , was conducted at Cape Kennedy Regional Airport in Melbourne, Florida and compared a population in a high noise corridor to a population a few hundred feet away. The density of the rats in the high noise corridor was 2.58 animals per acre while the population at a greater distance from the airport was as dense as 10.3 animals per acre. The study revealed that the little cotton rats closer to the airport were more timid and less social then their counterparts farther from the noise and researchers thus concluded that noise was the cause of "...general behavior differences between the two groups" (Kavaler, 1975).

Noise: The New Menace also reported on early research into the effects low flying supersonic aircraft on Dry Tortugas Sooty Terns. The population of Florida birds averaged 25,000-30,000 fledglings during their hatching seasons until 1969 during which a 99% failure rate in hatching occurred. In that same year low flying supersonic aircraft began repeated pass-overs of the nesting areas of the sooty terns. National Parks Service biologist Dr. W.B. Robertson Jr. blamed the sonic booms associated with these military flights because the noise presumably caused the mother birds to panic and fly from the nests. Sudden escape often ejected eggs from the nest or left the nest open to predation and neglect in the mothers' absence.

In addition to population decimation of birds through fledgling failures, Kavaler also noted the possible disruption to animal communication that would result as human-made noise encroached on the natural environment. She noted that "the bat, relying totally on echo location, is unable to find food when interference is produced by natural or mechanical means." A similar threat would also exist for marine mammals and others who depend on echo location for finding prey, mates or determining their migration routes. As Kavaler astutely observed, and as scientists continue to lament today, "no adequate answers are available to questions to the possible harm of such booms, known to be startling to man and animals, to life above and below the surface of the ocean."

In 1976 Calef et. al published "The Reaction of Barren Ground Caribou to Aircraft" at the conclusion of their studies of fixed winged aircraft and helicopters in Alaska and northern Yukon. In determining the possible effects of noise on the caribou populations they considered the effects of aircraft altitude, the type of aircraft, season, terrain, and the activity and size of the caribou that were exposed to the aircraft. The two year study (1973-1974) focused on the Porcupine Herd of Rangifer tarandus, which included 736 groups of caribou and four different types of aircraft. Calef and his associates grouped the responses of the caribou to the aircraft into five categories: panic response, strong escape response, mild escape response, stationary response and no visible response. They observed that panic reactions (animals out of control, colliding, stumbling etc.) and strong escape responses (trotting, running for long distances) were common in a high percentage of all groups when the aircraft flew at or below 60 meters. Thirty to 65% of all groups continued to exhibit these responses for altitudes up to 150 meters. However, they also noted that "the activity of caribou at the time of observation influenced their response to the aircraft." For example, when the caribou were traveling, feeding, and at river crossings their reactions were greater than when they were resting. During spring and fall migrations, while on calving grounds, in pre-rut conditions and during cold weather in early winter, the caribou were more likely to exhibit panic and strong escape responses. Calef et al. noted that neither the size of the group, the terrain, nor the vegetation contributed any significant effect on the caribou's response to the noise. In differentiating between the fixed winged aircraft and the helicopters, the researchers noted

the extra abilities of helicopters to hover and more closely pursue animals. According to their article "...following is the most dangerous from of harassment, and is possible only with a helicopter."

At the conclusion of their study, they determined that in panic responses the caribou were most in danger of injury through collisions with each other and stumbling on obstacles, whereas sustained running in the strong escape responses would create a less immediate, but equally great danger. Running in cold weather not only promotes pulmonary disorders, but it also creates a large depletion of energy reserves which is particularly harmful during the stresses of long winters and insect harassment when conservation of energy is critical to the animals' survival. While this study provided seemingly conclusive evidence that noise can indeed have a detrimental impact on wildlife, or at least caribou in particular, other studies have not concurred.

In the study, "Eastern Wild Turkey Responses Induced by Sonic Booms," Lynch and Speake placed 164 Megahertz transmitters in the habitat of twenty wild turkeys and exposed them to real and simulated sonic booms. The turkeys would generally stand at attention, and often run for four to eight meters when exposed to the sonic booms, but within thirty seconds they would return to their previous activity. According to Lynch and Speake "the results of this study indicate that sonic booms do not initiate abnormal behavior in wild turkey that would result in decreased productivity. The reaction is usually slight and they seem to adapt readily to further booms." The disparities between this and the aforementioned study of caribou is indicative of the difficulty in assessing the problem of noise pollution. One species may be more or less affected than another, different noises have correspondingly different effects, and even individuals within the same species may have dissimilar responses depending on any number of physiological and location differences. Reconciling these difficulties is but one of the challenges for scientists and policy makers.

Publication of the book The Effect of Noise on Wildlife alleviated some of this confusion by providing a thorough summary of the physiological and behavioral responses that wildlife generally experience when introduced to human-made noise (Busnel, 1978). Physiological responses to noise include an increased heart rate, and altering of metabolism and hormone balance. Behavioral reactions consist of head raising, body shifting, trotting short distances, flapping of wings (birds), and panic and escape behavior. According to the text, the coupling of these effects has the potential to cause bodily injury, energy loss, a decrease in food intake, habitat avoidance and abandonment, and reproductive losses. This text exemplifies how the historical research served to frame and direct subsequent research by providing various foci for later studies.

RESEARCH INTO THE EFFECTS OF NOISE ON TERRESTRIAL WILDLIFE DURING THE 1980's

Richard Knight exposed the problematic interaction between bald eagles and boating activity in 1984 with his study of wintering populations that are closely associated with open water used for motorized recreation. He noted that the rapid motion of boats allows them to impact large areas in short periods of time which increases the probability of negative repercussions on the eagles nesting along the shore lines. The boat noise disrupted feeding activity which reduced the eagles' energy intake, while avoidance flights simultaneously increased the energy expended by the eagles, thereby magnifying their energy deficit. With continued exposure to the motor noises the eagles had a decreased tendency to fly away, but Knight was unable to determine as to whether this was a result of habituation or a consequence of decreased food availability farther from shore. As with any other study on the effects of noise on wildlife, this study was complicated by the fact that it is impossible to isolate the noise

from other factors influencing the behavior and physiology of an animal.

The publication of "Elk Calf Responses to Simulated Mine Disturbances" added a new type of sound to the field of research into noise pollution in the natural environment (Hompland, 1985). This study assessed the calf movements, habitat selection patterns and survival of Cervus elaphus when exposed to sounds similar to those encountered in mining operations as compared to a control population. The researches found that calves exposed to the noise moved greater distances, used larger areas, and lacked selection for favorable physiographic parameters. Cow and calf pairs also readily abandoned their traditional calf rearing areas, but cows did not abandon calves in the noise-exposed population. Researchers worried that calves could imprint on the less favorable habitat and continue to use marginal areas even after the noise source was removed which would likely reduce their chances of long-term survival. In addition, the effects of exposure to mining disturbances "...are cumulative and could result in reduced calf survival or aborted fetuses in cows," thus endangering the survivorship of the entire population. In regards to mitigating the potential of long-term effects of mining noise on elk and other wildlife, the researchers intimated the need for federal and state involvement in the planning process of mining to prevent or minimize unnecessary exposure through fragmentation of critical elk habitat. Suggestions for eliminating or minimizing the impact of noise on wildlife, which was largely absent in earlier research, became more prevalent with the transition into the 1980s with the increasing awareness of the problem.

Krausman et. al presented a different view of the effect of noise on wildlife in their 1986 publication: "Desert Mule Deer Response to Aircraft." During May-September 1984 they studied twenty two Odocoileus heminonus crooki in the Picacho Mountains of South-central Arizona. Through the use of radio collars they hoped to determine whether these deer altered their habitat use in response to aircraft overflights between thirty and 300 meters in altitude. Krausman et al. determined that "whether a deer changed habitats as a result of overflights was independent of the average height of the aircraft." Ninety seven percent of the time "desert mule deer in South-central Arizona rarely responded to aerial overflights by changing habitat." They speculated that the deer had become habituated to noise because the Picacho Mountains border an interstate highway that serves Tucson and which is followed regularly by aircraft. Thus, we are again presented with a divergent view that refutes the concern for the injurious effects of noise on wildlife populations, but attests to the diversity of responses that researches continue to discover.

In order to address this conundrum, the U.S. Fish and Wildlife Service in cooperation with Ecological Services, field offices, refuges, hatcheries, research centers conducted a survey in January of 1987 that focused on the perceived effects of aircraft noise and sonic booms on fish and wildlife. The survey asked directors and supervisors of the aforementioned locations about the impact on species, populations, and habitat utilization as a result of aircraft induced impacts. They were to document the reaction of animals to the aircraft on a scale from no known adverse effect, to animals abandoning the area, to death (such as at a hatchery in response to intense sonic booms). In summarizing the results of the survey, the Fish and Wildlife Service concluded that helicopters engender a greater flight/fright response, waterfowl are most frequently disturbed by aircraft - especially colonial nesting species and that, impacts to all wildlife range from minor behavioral responses to severe changes in the use of an area.

From the data collected and the suggestions of directors and supervisors, the Fish and Wildlife Service made several recommendations including the need for better relations with the FAA, airport operators, and military bases such that discussions of the effects of aircraft operations on fish and wildlife could be openly and productively pursued. The directors and

supervisors also suggested that a clearing house be created to disseminate information about the actual and potential affects of aircraft on wildlife which would be gathered as a result of continued research. This survey served as a much needed impetus for further research and expanded interest in the problem of human-produced noise in natural areas.

RESEARCH INTO THE EFFECT OF NOISE ON TERRESTRIAL WILDLIFE DURING THE 1990s

Harrington and Veitch published "Short Term Impacts of Low-level Jet Fighter Training on Caribou in Labrador" in December of 1991 at the conclusion of their 1986-1988 studies of ten Rangifer tanrandus. Satellite telemetry, video tape, visual observations, and radio collars were used to determine the effects of exposure to noise by indirect measurement of the caribou's daily movements and activity levels. They observed that the usual response of the caribou to the jet overflights was a startle reflex (an activation of the sympathetic nervous system) which induced bolting and running. This reaction was intensified when the jets made a direct overpass. Because it is a reflex action, it is unlikely that the caribou would habituate to the noise. Harrington and Veitch noted that the startle response, although short-lived, did pose a threat during calving season by increasing the likelihood of: cow and calf separations, injuries to newborn calves (if the mother were to bolt) and stillbirths. Such panic during a thaw might also cause the caribou to become mired in wet snow.

The researchers also hypothesized that the stress caused by overflights may cause mother cows to produce less milk and calves to have reduced thyroid function which would slow their growth and thus increase their probability of death through predation. While the startle reaction had the greatest impact on the caribou, Harrington and Veitch did not find a significant increase in overall activity level in animals that were deliberately overflown on a daily basis. "Neither the twenty-four hour activity index nor the daily distance traveled was consistently related to the degree of exposure to low level flying aircraft," which they attributed to the short-lived nature of the caribou's reactions. The study concluded with a recommendation by the authors that in order to minimize actual and as yet undiscovered impacts, flightpaths should be monitored so that excessive exposure of specific areas could be avoided - especially during calving.

A study of the potential effects of helicopter noise on big horn sheep time budgets in the Grand Canyon by Berger et. al looked at if and/or how food intake might be impaired. They found that during the winter Ovis canadensis nelson were more sensitive to noise such that the sheep experienced a forty-three percent reduction in foraging efficiency. In the spring however, they found no significant effect in foraging efficiency. The disturbance threshold they calculated for big horn sheep in regards to helicopter altitude was 250-450 meters which lead them to hypothesize that the difference in disturbance between spring and winter was due to the migration to lower elevations in the spring which created a greater distance between them and the helicopter. Minimizing the effects to big horn sheep in the Grand Canyon would be achieved by limiting the helicopter flights to the spring and/or maintaining at least 450 meters between the helicopter and the animals. As with the previous studies, this study does not go so far as to propose the elimination of such flights, nor does it address the possible incompatibility of human-made noise in the natural environment. Later into the 1990s however, this recognition of dissonance between noise and nature became more apparent and publicized, but all too often the reports ignored the wildlife aspect and focused instead on the impact to our human wilderness experience.

A 1996 study "Effects of Simulated Jet Aircraft Noise on Heart Rate and Behavior of Desert Ungulates," questioned the management objectives of public lands and the congruity of allowing military airspace to be underlain by National Parks and other wildlife refuges given

the disturbances created by the noise of their engines. The purpose of the study was to determine the cardiac responses (immediate and long-term) of desert mule deer and bighorn sheep to simulated low level aircraft noise and to establish whether or not the animals become habituated to such exposure. The animals were implanted with heart rate monitors and studied over three twenty-eight day sessions during the summer, late summer and early spring during which overflight frequencies ranged from one per day to seven per day.

During the summer and late summer desert mule deer exhibited a significant increase in heart rate one minute before an aircraft passed overhead and during the overpass, but no significant increase was detected beyond two to three minutes after the overflight. During the spring their heart rates were significantly elevated before, during, and up to three minutes following the overflight. Big horn sheep had significantly elevated heart rates at the time of the overflights and for three minutes after the aircraft passed during the two summer seasons, but during the spring a significant increase in heart rate was only observed during the direct overpass. For both deer and sheep the intensity and frequency of alerted and alarmed responses to aircraft was greater in the summer than in other seasons. This finding was consistent with past studies as was the finding that aircraft that generated louder noise caused greater elevations in heart rate.

The researches concluded that "the animals in this study habituated rapidly and probably did not view this stimuli as a threat. The frequency and noise level were not detrimental to their well-being" nor did it inhibit their reproductive mechanisms. Direct, unexpected human harassment was deemed a greater threat to the animals' health than the noise produced by such things as aircraft and mining disturbances.

A different study in the desert, that of the kangaroo rat and the sidewinder rattlesnake, painted a rather contrary picture of the effects of noise in that habitat. Richard Immel's article "Shhhh...those `peculiar people' are listening" observed that in the desert "...man-made noise is the enemy - and it's more serious than a mere distraction" (Immel, 1995). In determining the effects of dune-buggy noise on the desert kangaroo rat the article stated: "the roar of a dune-buggy engine can temporarily disable a reflexive defense of the desert kangaroo rat against one of its archenemies, the sidewinder rattlesnake. The rat normally can hear the snake at 30 inches, which gives it time to kick sand in the snake's eyes and escape. But the engine noise deafens the rat and virtually eliminates its defensive hearing. Until the rat's normal hearing returns, several days later, the snake often wins in an encounter" (Immel, 1995). The dissimilarity between this and the aforementioned study of desert ungulates again demonstrates the diversity of effects that noise can have among and between species and the ensuing difficulty the scientific community has in presenting definitive evidence for wildlife as a whole. Issues of management and protection become a morass when each species could potentially have different thresholds of disturbance.

In accordance with the side that purports the maleficent effect of noise on wildlife was a February 1997 report that announced a pending agreement between federal wildlife and aviation officials concerning bald eagles near Denver Airport. Fish and Wildlife representatives charged that planes taking off west or landing east on runway 7125 were in violation of the Endangered Species Act because the noise of the aircraft was effectively driving up to thirty bald eagles from their roosting site in a grove of cottonwoods on the east side of the Rocky Mountain Arsenal. In escaping the noise the birds were forced into less secure roosting areas including trees amongst lakes and industrial areas that had been heavily polluted during four decades of pesticides and chemical weapons production.

In order to comply with the Endangered Species Act and return the eagles to their cottonwood sanctuary, federal aviation officials agreed to re-route planes away from this

sensitive winter habitat. Although not what many people would consider a `natural area' the habitat is crucial to the long-term survival of that bald eagle population and thus necessitate a reprieve from the hazards of human-produced noise. It is interesting however, that this decision was made in favor of wildlife while in other, more `natural' areas, the issue of wildlife and their right to a quiet environment is dismissed in deference to the rights of humans to either create noise or seek solitude from it. Perhaps the enforcement of the Endangered Species Act is what saved the eagles and not some revelation in regards to the perilous effects of unnatural noise and our duty to protect other creatures.

NOISE IN THE NATIONAL PARKS

"The first government official to note what air traffic might do to the National Parks was Secretary of the Interior Harold Ickes in 1934. He stated that he did not see any sense in looking at parks flying by at one hundred miles an hour" (Lee, 1994). Since Ickes' statement over sixty years ago the problem has worsened significantly for humans and wildlife alike, but looking at the media publications one would think this was only a problem that affected humans. However, somewhat surprisingly, Congress has periodically addressed the issue of human-made noise in our National Parks from the perspective of its effects on wildlife. In the 1994 Report to Congress entitled "Report on the Effects of Aircraft Overflights on the National Park System," Chapter Five was dedicated to detailing the effects of overflights on wildlife. The report discussed physiological and behavioral responses to overflights, indirect effects, accidental injury, reproductive losses, energy losses, habitat avoidance and abandonment, impact on Endangered Species, problems with detecting long-term effects of aircraft disturbance, and development of impact criteria.

In regards to the physiological responses of wildlife to aircraft overflights, the report stated that depending on the characteristics of the noise and the species, (its natural history, health at the time etc.) the reaction of a particular animal could range from mild annoyance to panic and escape behavior. Such responses are manifestations of stress, and while the effects of stress from overflights are not well documented, the report did warn that "...excessive stimulation of the nervous system can amount to chronic stress, and that continuous exposure to aircraft overflights can be harmful for the health, growth, and reproductive fitness of animals" (Fletcher, 1980, 1990). As with physiological responses, behavioral responses vary between species and within a species due to a variety of factors (such as age, sex, prior exposure etc.). While the report stated that "behavioral responses reflect a variety of states, from indifference to extreme panic," the aforementioned variability only allowed for anecdotal information on individuals which "...is not useful for drawing conclusions for that or any other species." The report only briefly discusses indirect losses, noting that it is difficult to assess such harm because "whether or not such indirect effects occur depends on other factors associated with the natural history of a species." Again, researchers were impeded in their attempts to secure decisive information due to the inherent variability of species and individual animals in their responses to noise.

In regards to accidental injury the report cited that "A common concern among biologists is that animals will occasionally fall, run into objects, or become trampled when they panic and run from aircraft." In addition they noted that young animals are more likely to be trampled in panic situations and that the topography of an area could increase the probability of injury, particularly if the population density is high. The reproductive losses discussed in the report included those caused by "...altered patterns of attendance to young," accidental breakage of eggs in a panic response, and malnourishment of young due to inhibited milk production. Energy losses, according to the document, resulted from a two pronged effect - energy expended in escape and panic responses, and a reduced energy intake due to missed feeding

opportunities. In reference to habitat avoidance and abandonment the report again noted that generalizations could not be made because different species and individuals within species have varying sensitivities, and thus have variable tendencies to leave a habitat. Of great concern however, is the possibility of habitat avoidance and abandonment by "...species whose high-quality habitat is already scarce" because this could jeopardize the future stability and success of the population. The overflight impacts on endangered species, at the time of the report were largely unknown. "Of all threatened and endangered species Federally listed in the United States, there is information regarding responses to overflights only for the grizzly bear, sonoran pronghorn, peregrine falcon, bald eagle, and everglades kite. None of these species have been studied enough to differentiate between aircraft activities that do and do not cause harm." The lack of knowledge is not limited to endangered species and is representative of the difficulty that scientists, the public, and policy makes have in drawing conclusions and making informed decisions about what should be done in regards to noise in the National Parks.

Adding to this predicament are the problems with detecting long-term effects of aircraft disturbance. According to the report "This is due both to the limitations of ecological research and to the nature of long-term responses." While speculation on the effects experienced by particular species was limited, the report did concede that "Long-term responses that might occur include permanent changes in habitat use, increased mortality of birds during migration (due to lower weight gains during staging), or population effects due to reduced reproductive success (due to egg loss, for example)." In spite of these dilemmas, the report did offer recommendations for developing impact criteria "...meant to help agencies in determining the severity of impacts." The report divided impacts into four categories: negligible, low, moderate, and high and proceeded to list examples of what each might include. While the report laid a decent foundation for addressing the issue of noise in our National Parks and the effect that the noise may be having on wildlife, much of the proceeding governmental discussions and media exposure, nevertheless remained focused on the impact to people.

At the center of the controversy over noise in our National Parks is Grand Canyon National Park. Approximately thirty years ago an airport opened in Tusayon, Arizona, a small town near the south rim of the Grand Canyon (Udall, 1997). Shortly thereafter pilots began selling sightseeing flights to interested tourists and the historic quiet of the Grand Canyon was eliminated. According to flight records, over 80,000 flights occur over the Grand Canyon per year, with as many as 10,000 flights per month during the summer season (Lee, 1994). During busier days at Tusayon Airport there are as many as one hundred take-offs and landings per hour. The FAA has named the Grand Canyon "...the air tour capital of the USA, if not the world" (Udall, 1997). In response to the excessive noise in the Grand Canyon, Transportation Secretary Federico Pena declared: "if we can't enjoy peace and quiet in our National Parks, where can we?" (Lee, 1994). Secretary of the Interior Bruce Babbit `s remark "It's an outrage," likewise expressed displeasure at the current cacophony in our National Parks (Udall, 1997). Congress, despite the sentiments of these top officials, and the demands of environmentalists, has been slow to enact legislation. Their reluctance is partially a response to the issue's other side - that of the industrial tourism industry and those tourists who believe that they have a right to view the National Parks by aircraft (automobile, snowmobile, etc.).

Air tourism exerts a considerable influence in Congress because of the revenue it creates in the nation's economy. The thirty-one tour operators at the Grand Canyon in 1996 served over 800,000 customers, thus grossing approximately 117 million dollars (Udall, 1997). Clearly the operators and the other businesses that they indirectly support have a vested interest in maintaining or increasing the number of flights over the Grand Canyon and other National Parks. Jack Thompson, flight operations manager for the National Transportation Association

deflected criticism of the air tour industry by asserting that they "...provide valuable service for the 1000s of visitors who want to see the Grand Canyon," many of whom would not be able to explore it by other means (Lee, 1994). Absent from much of this discussion and similarly neglected in Congress' discussions is the impact of these overflights on wildlife. Without detracting from the importance of a quiet wilderness experience for people, it is essential that values and issues beyond those ascribed by and important to humans be considered.

Senator John McCain, who introduced the "National Overflights Act of 1997" to Congress alluded to the importance of wildlife in instructing people to heed the lessons from the Grand Canyon: "We cannot wait until natural quiet has been lost before we take steps to prevent the impairment of natural resources" (1997). Contrary to this sentiment however, Senator McCain's version of the National Parks Overflights Act of 1997 did not contain any mention of wildlife per se. While two of the goals of the Act were "to protect the resources of any national park experiencing an adverse impact associated with noise from aircraft overflights;" and "to prevent resource impairment from noise associated with overflights at any national park," concern specific to wildlife was disregarded. The restrictions placed on aircraft such as limitations on the number, altitude and areas of flights will aid in the restoration of quiet, but the benefits to wildlife will be incidental. For as long as the rights and health of wildlife is not preeminent in the minds of people, the issue of the effects of noise on wildlife will remain unaddressed, thus risking irrevocable impairment to individuals, populations, and species as a whole.

RESEARCH INTO THE EFFECTS OF NOISE ON MARINE WILDLIFE

Land animals are not the only wildlife effected by human-produced noise; their brethren in the aquatic world are also subjected to noise, often at greater intensities. The recognition of noise as a pollutant in the hydrosphere was delayed longer than noise pollution in the atmosphere, perhaps because we are not as aware of or concerned about noise that we cannot readily hear. Noise, particularly in the oceans, is created by numerous sources including commercial and military ships, oil exploration, and military and scientific tests. The National Marine Fisheries Service, which enforces the Marine Mammal Protection Act of 1972 announced in 1994 that scientists, often in an effort to protect marine life through their research "...contribute to the harassment of these denizens of the deep" (Schulhof, 1994). In agreement with this declaration, the Acoustical Society of America announced in that same year that human-created noise was posing an ever greater threat to the health of marine mammals. To support their stance they cited the increasing tendency of whales to become caught in nets in New Foundland after blasting occurred in an effort to enlarge a channel for tanker travel. Entanglement in the nets suggested that the whales' ability to echolocate had been impaired. Dr. Darlene Ketten, a hearing specialist from Harvard University confirmed this suspicion after finding the ear bones of two whales killed in the blast shattered and the ear canals filled with blood and pus. The National Marine Fisheries Service, partly in response to Ketten's discovery, recommended that a 120 decibel cap be placed on underwater noise in order to minimize the injurious effect on whales and other aquatic life. Many researchers were outraged by this demand, asserting that dolphin calls have been recorded at levels of 130 decibels and that a decibel cap would undermine their ability to perform experiments. In addition they argued that enforceability would be veritably impossible, especially outside of United States waters. The cap was not enacted, but the debate over noise in the ocean and other waterways was far from over and to date remains unresolved.

The issue of noise in the ocean is not unlike the issue on land in that both solutions hinge on similar points - how much we value the rights of other animals to live a peaceful, healthy

existence (and what costs we are willing to incur to ensure this quiet), and how much effort we are willing to put forth in terms of research that will ideally unravel the diversity of varying effects that noise has on wildlife. The disagreements over and the uncertainty of what is currently known and the vast amount of undiscovered knowledge is a great impediment to our understanding and progress towards protection of wildlife.

Tom Norris' studies of "The Effects of Boat Noise on the Acoustic Behavior of Humpback Whales" exemplifies this obstacle of uncertainty. Dr. Norris studied the songs of Megaptera novaegliae as they were introduced to boat noise and discovered that "...boat noise level might affect humpback whale song structure at the most basic level by altering the rhythm or increasing the tempo of songs..." (Norris,1994). As Dr. Norris noted however, the significance of these effects, especially on the behavior of the whales, remains uncertain. Similarly, disagreements among scientists also engender a level of uncertainty. In the 1994 report "Low Frequency Sound and Marine Mammals," a committee appointed by the Ocean Studies Board of the National Academy of Sciences National Research Council scientists could not come to consensus (Holing, 1994). "While it acknowledged that the effects of loud, low frequency sound `could conceivably range between potential hearing damage and gradual deafness for the entire species - and eventual extinction - and practically no discernible impact' the report concluded that a dearth of scientific evidence makes it virtually impossible to predict what those effects will be" (Holing, 1994). While that particular committee made that conclusion, other scientists such as Sylvia Earle, former chief scientist at the National Oceanic and Atmospheric Association, are of a different opinion. Dr. Earle asserted that "each sound by itself is probably not a matter of much concern, but taken all together, it's creating a totally different environment than existed fifty years ago. The high level of noise is bound to have a hard, sweeping impact on life in the sea" (Holing, 1994). Disagreement among scientists and their inability to provide concrete proof on either side of the debate confuses the public and virtually paralyzes policy makers seeking to settle the issue. Taking this attitude however, is another manifestation of our anthropocentric view of the world, for if our view was biocentric we would intuitively understand that a cacophony of noise, even if not life threatening, cannot provide for a decent quality of life for any organism, land or marine. This knowledge would in turn serve as the basis for our decisions to mollify the situation and greatly reduce if not eliminate the impact of noise everywhere.

The decision of course is not that easy, for we have structured our society around noise-producing progress, and in order to deal in reality we must acknowledge and accept a certain level of noise. Agreeing upon an acceptable level of noise, especially in regards to the ocean and the sound sensitive life that resides there is a daunting challenge. Richard Pattock, in the article, "Cacophony of human-made noise pounds oceans," echoes this sentiment by posing the question "...how much noise is too much?" Pattock discusses the intensity of noise in the oceans, noting that supertankers, "....the largest human-made source of ocean noise... are so loud they can be heard under water a full day before they appear on the horizon." While the levels of sound are easily measured, the problem again lies in determining the effects of this noise on marine life because "...so little is known about these creatures that scientists cannot say for sure how they are affected by the noise of humans, particularly the cumulative effect of low frequency sound." This dearth of knowledge was evident to Peter Schiefele, a researcher at the National Undersea Research Center at the University of Connecticut, as recently as May 1997. Scheifele, who is trying to determine whether noise levels in the St. Lawrence and Saugenay Rivers in Quebec are damaging the hearing and capacity of survival for beluga whales was forced to admit that the extent of damage continues to remain unclear. (Chang, 1997).

In March of 1997 a forty foot sperm whale became trapped in the inshore waters of Firth of Forth near Edinburgh, Scotland (Quinn, 1997). Scientists attributed this to traffic noise from

the rail and road bridges that traverse the waterway. Although they could not confirm their suspicions, the scientists believed that the clamorous noise made the sperm whale reluctant to return to open waters which eventually caused it to become stranded in the shallows between the bridges. This incident, like many others of its kind provides anecdotal rather than definitive evidence and as such is often dismissed by researchers, policy makers and those responsible for generating the noise. As researcher Ronald Larkin asserted, "Research is hampered by a preponderance of small, disconnected, anecdotal or correctional studies as opposed to coherent programs of controlled experiments" (1996). This absence of concrete answers begets the question of whether, as a society, we are willing to risk waiting for undisputed proof, cognizant that, as we wait, we may be allowing a multitude of marine organisms to be deafened or otherwise injured in regards to the quality and length of their lives. The American Oceans Campaign, which monitors governmental and industrial sound generation, believes that "what marine mammals in the Pacific Ocean experience now is akin to living next to a freeway with the windows closed" (Preston, 1997). While this may not seem intolerable to humans, the American Oceans Campaign reminds us that we do not know what it means to them and their greater sensitivity to sound, and as such our failure to enact preventative measures could be causing irreparable damage to the marine ecosystem.

ACOUSTIC THERMOMETRY OF OCEAN CLIMATE

At the center of the debate over how much noise is too much and what effects noise pollution is having on marine life is the controversial Acoustic Thermometry of Ocean Climate (ATOC) project lead by Scripps Institution of Oceanography. ATOC, a thirty five million dollar program, is designed to measure the oceans' temperatures in an effort to predict climate change (Brown, 1995). Using low frequency sound waves, "underwater microphones in the Pacific Ocean will measure average deep-water temperatures by clocking the travel time of sound from submerged emitters off California and Hawaii." ATOC concerns many marine scientists, environmentalists and animal welfare advocates "...because the 195 decibel noise - a low rumble to be broadcaster six times daily for as long as 10 years - could affect as many as 677,000 marine mammals in the ocean off Big Sur, south of San Francisco" (LA Times). Congruous with the lack of understanding of the potential affects of noise in general, and ATOC noise specifically, a National Resource Defense Council senior attorney admonished, "We simply cannot afford to play Russian roulette with our global oceanic system" (Preston, 1997).

The opposition with which ATOC was met prompted public hearings which in turn persuaded Scripps Institution of Oceanography to use their Marine Mammal Research Program (MMRP) to study the effects of ATOC-like noise in the oceans. While Scripps Oceanographer David Hyde supported the public hearings, welcomed the suggested research and stated that "We're not out to harm a single animal and we will stop the project if there is any evidence of that," Christopher Clark, head of the ATOC marine mammal study was rankled by the controversy stating that "This is environmental activism gone completely astray" (Brown, 1995). Clark conducted the study none-the-less and published MMRP's report "Results From Over a Year of Acoustic Transmissions" on May 14, 1997. He and Adam S. Frankel concluded that "Presently there are no MMRP results indicating that any species shows any biologically significant adverse response to ATOC or ATOC-like sounds..." The finding of no ill effects to marine mammals allowed the ATOC program to commence, but the MMRP continues to monitor the acoustic transmissions and watches for adverse impacts on the aquatic ecosystem.

SUMMARY

R. Murray Schafer, composer and author of The Tuning of the World believes that "the general

acoustic environment of a society can be read as an indicator of social conditions which produce it and may tell us much about the trending and evolution of that society" (Giansante, 1979). Assuming Schaefer is correct, the issue of noise in our National Parks and other natural areas is very telling of the social conditions and trends of our society in regards to our encroachment on the last remaining wilds and degradation of natural quiet. In addition, our narcissistic focus on the right of humans to either generate noise or be free of human noise in nature, and consequent indifference to the effect that our noise is having on wildlife is likewise very poignant in revealing our values as a society. By allowing human-produced noise to destroy the historic quiet of natural areas we are valuing the consumptive desires of motorized tourists, exorbitant military practice flights, and research of questionable value over the inestimable worth of areas free of human cacophony. By remaining unconcerned or unaware of the potential harm that this unnecessary noise is having on wildlife we are valuing our anthropocentric wants over the very survival and future of other creatures. Nature recordist and Nature Sounds Society member Bernard Krause "...says there is now almost no place on Earth - including the North Pole, Antarctica and the dense forests of Indonesia and the Amazon - that is free of aircraft overflights, the buzz of chain saws and other human clatter. Krause remembers when it took 20 hours to get 15 minutes of usable recorded material. `Now it takes 200 hours,' he says" (Immel, 1995). If we remain on this course of introducing our sounds to every inch of the Earth, there will not be any escape from our clamorous, progress-oriented world and worse still there may be less wildlife, for many species may not be able to adapt to the changes in their once peaceful habitats. Ultimately the choice rests in our hands, but to choose quiet and protect the welfare of other animals in addition to ourselves, we must summon the courage to challenge those who would deny the rights of wildlife and leave neither us nor them respite from the human-altered world.

REFERENCES

Berger, Joel et al. 1991. "Conflict in National Parks: A Case Study of Helicopters and Bighorn Sheep Time Budgets as the Grand Canyon." Biological Conservation. 56(3):317-328.

Brown, Stuart F. "The Sound of Global Warming." Popular Science. July 1995: pp.59-63.

Busnel,R.G. and John Fletcher (eds.). 1978. Effects of Noise on Wildlife. New York: Academic Press.

Calef, George et al. 1976. "The Reaction of Barren Ground Caribou to Aircraft." Arctic. 29(4):210- 212.

Chang, Kenneth. "Researchers Study Beluga Whales' Response to Shipping Noise in Canadian Rivers." Newsday. May 6, 1997: p.B27.

Dorrance, Michael et al. 1975. "Effects of Snowmobiles on White-tailed Deer." Journal of Wildlife Management. 39(3):563-569.

Driscoll, Patrick. "Eagles Near Denver Airport Will Soon Get Noise Relief." The Denver Post. February 17,1997: p.B1.

"Effects of Simulated Jet Aircraft Noise on Heart Rate and Behavior of Desert Ungulates." Journal of Wildlife Management. 60(1):52-61.

Giansante, Louis. "The Soundscape." Media and Methods. November 1979:pp.43-48.

Harrington, Fred and Alasandair Veitch. 1991. "Short-term Impacts of Low Level Jet Fighter Training on Caribou in Labrador." Arctic. 44(4):318-327.

Holing, Dwight. 1994. "The Sound and The Fury: Debate Gets Louder Over Ocean Noise Pollution and Marine Mammals." The Amicus Journal. 16(3):19-25.

Hompland, Gary et al. 1985. "Elk Responses to Simulated Mine Disturbance in Southeast Idaho." Journal of Wildlife Management. 49(3)751-757.

Immel, Richard. 1995. "Shhh...Those Peculiar People Are Listening." Smithsonian. 26(1):151-160.

Kavaler, Lucy. 1975. Noise: The New Menace. New York: The John Day Company.

Knight, Richard. 1984. "Responses of Wintering Bald Eagles to Boating Activity." Journal of Wildlife Management. 48(3):999-1004.

Krause, Bernard. "The Niche Hypothesis." The Soundscape Newsletter. June 6, 1993.

Krausman, Paul et al. 1986. "Desert Mule Deer Response to Aircraft." Wildlife Society Bulletin. 14(1):68-70.

Larkin, Ronald. "Effects of Military Noise on Wildlife: A Literature Review." USA CERL Technical Report. January 1996.

Lee, David. "Increasing Air Tours Pollute Our National Parks." National Parks July 1994: p.25.

"Breaking the Sound Barrier." National Parks July 1994: p.24.

McCain, John. "Overflight Oversight." National Parks. September-October 1997. 71(9-10):41.

National Overflights Act of 1997. S268. 105th Congress. 1st Session.

Norris, Tom F. 1994. "The Effects of Boat Noise on the Acoustic Behavior of Humpback Whales." Proceedings of the Acoustic Society of America. (128th Meeting). 96(5):3251.

"Ocean Sound Testing Put on Hold." Los Angeles Times.

Paddock, Richard. "Cacophony of Human-Made Noise Pounds Oceans." Los Angeles Times. p.1A.

Preston, Todd. "The Unquiet Oceans." E Magazine. March-April 1997. 8(2):21-24.

Quinn, Joe. "Whale Trapped in Firth of Forth by Traffic Noise." Home News. March 21,1997.

Report on Effects Of Aircraft Overflights On The National Parks System. Chapter 5: Effects of Overflights on Wildlife. 5.1-5.27.

Schulhof, Julia. "Quiet Please." Sea Frontiers. March-April 1994. 40(2):10-11.

Scripps Institute of Oceanography. "ATOC Marine Mammal Research Program to Commence at Both Locations." UCSD News. October 30,1997.

"Marine Mammal Research Program: Results From Over a Year of Acoustic Transmissions." UCSD News. May 14, 1997.

Udall, James R. "Silence Under Siege." Sierra. March-April 1997. 82(2):28-30.

Biographical Statement: Autumn Lyn Radle, is graduate student at the Unversity of Oregon pursuing a Master's Degree in Environmental Studies. After completing this degree and attaining her doctorate she expects to work in the field of sustainable development as it relates to planning and desgining sustainable communities.

Ecological light pollution

Travis Longcore and Catherine Rich

Ecologists have long studied the critical role of natural light in regulating species interactions, but, with limited exceptions, have not investigated the consequences of artificial night lighting. In the past century, the extent and intensity of artificial night lighting has increased such that it has substantial effects on the biology and ecology of species in the wild. We distinguish "astronomical light pollution", which obscures the view of the night sky, from "ecological light pollution", which alters natural light regimes in terrestrial and aquatic ecosystems. Some of the catastrophic consequences of light for certain taxonomic groups are well known, such as the deaths of migratory birds around tall lighted structures, and those of hatchling sea turtles disoriented by lights on their natal beaches. The more subtle influences of artificial night lighting on the behavior and community ecology of species are less well recognized, and constitute a new focus for research in ecology and a pressing conservation challenge.

Front Ecol Environ 2004; 2(4): 191–198

As diurnal creatures, humans have long sought methods to illuminate the night. In pre-industrial times, artificial light was generated by burning various materials, including wood, oil, and even dried fish. While these methods of lighting certainly influenced animal behavior and ecology locally, such effects were limited. The relatively recent invention and rapid proliferation of electric lights, however, have transformed the nighttime environment over substantial portions of the Earth's surface.

Ecologists have not entirely ignored the potential disruption of ecological systems by artificial night lighting. Several authors have written reviews of the potential effects on ecosystems or taxonomic groups, published in the "gray" literature (Health Council of the Netherlands 2000; Hill 1990), conference proceedings (Outen 2002; Schmiedel 2001), and journal articles (Frank 1988; Verheijen 1985; Salmon 2003). This review attempts to integrate the literature on the topic, and draws on a conference organized by the authors in 2002 titled *Ecological Consequences of Artificial Night Lighting*. We identify the roles that artificial night lighting plays in changing ecological interactions across taxa, as opposed to reviewing these effects by taxonomic group. We first discuss the scale and extent of ecological light pollution and its relationship to astronomical light pollution, as well as the measurement of light for ecological research. We then address the recorded and potential influences of artificial night lighting within the nested hierarchy of behavioral and population ecology, community ecology, and ecosystem ecology. While this hierarchy is somewhat artificial and certainly mutable, it illustrates the breadth of potential consequences of ecological light pollution. The important effects of light on the physiology of organisms (see Health Council of the Netherlands 2000) are not discussed here.

In a nutshell:

- Ecological light pollution includes chronic or periodically increased illumination, unexpected changes in illumination, and direct glare
- Animals can experience increased orientation or disorientation from additional illumination and are attracted to or repulsed by glare, which affects foraging, reproduction, communication, and other critical behaviors
- Artificial light disrupts interspecific interactions evolved in natural patterns of light and dark, with serious implications for community ecology

The Urban Wildlands Group, PO Box 24020, Los Angeles, CA 90024-0020 (longcore@urbanwildlands.org)

Astronomical and ecological light pollution: scale and extent

The term "light pollution" has been in use for a number of years, but in most circumstances refers to the degradation of human views of the night sky. We want to clarify that this is "astronomical light pollution", where stars and other celestial bodies are washed out by light that is either directed or reflected upward. This is a broad-scale phenomenon, with hundreds of thousands of light sources cumulatively contributing to increased nighttime illumination of the sky; the light reflected back from the sky is called "sky glow" (Figure 1). We describe artificial light that alters the natural patterns of light and dark in ecosystems as "ecological light pollution". Verheijen (1985) proposed the term "photopollution" to mean "artificial light having adverse effects on wildlife". Because photopollution literally means "light pollution" and because light pollution is so widely understood today to describe the degradation of the view of the night sky and the human experience of the night, we believe that a more descriptive term is now necessary. Ecological light pollution includes direct glare, chronically increased illumina-

© The Ecological Society of America

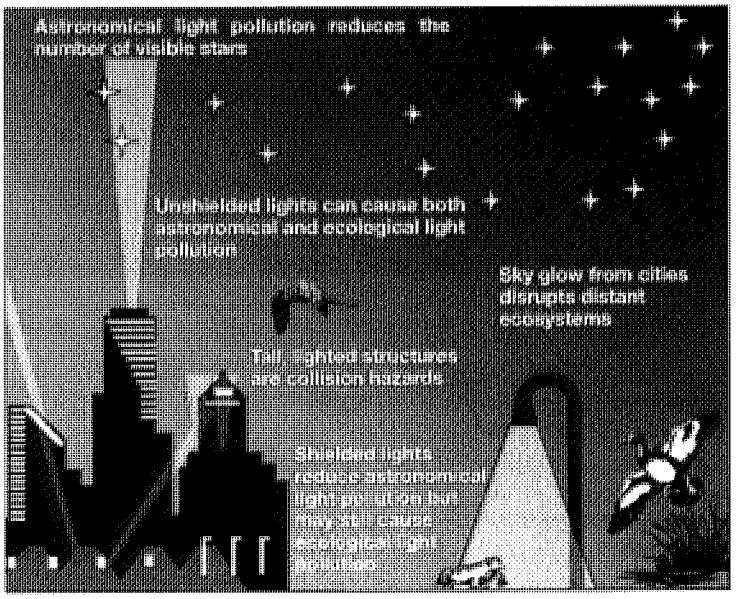


Figure 1. Diagram of ecological and astronomical light pollution.

tion, and temporary, unexpected fluctuations in lighting. Sources of ecological light pollution include sky glow, lighted buildings and towers, streetlights, fishing boats, security lights, lights on vehicles, flares on offshore oil platforms, and even lights on undersea research vessels, all of which can disrupt ecosystems to varying degrees. The phenomenon therefore involves potential effects across a range of spatial and temporal scales.

The extent of ecological light pollution is global (Elvidge *et al.* 1997; Figure 2). The first atlas of artificial night sky brightness illustrates that astronomical light pollution extends to every inhabited continent (Cinzano *et al.* 2001). Cinzano *et al.* (2001) calculate that only 40% of Americans live where it becomes sufficiently dark at night for the human eye to make a complete transition from cone to rod vision and that 18.7% of the terrestrial surface of the Earth is exposed to night sky brightness that is polluted by astronomical standards. Ecosystems may be affected by these levels of illumination and lights that do not contribute to sky glow may still have ecological consequences, ensuring that ecological light pollution afflicts an even greater proportion of the Earth. Lighted fishing fleets, offshore oil platforms, and cruise ships bring the disruption of artificial night lighting to the world's oceans.

The tropics may be especially sensitive to alterations in natural diel (ie over a 24-hour period) patterns of light and dark because of the year-round constancy of daily cycles (Gliwicz 1999). A shortened or brighter night is more likely to affect tropical species adapted to diel patterns with minimal seasonal variation than extratropical species adapted to substantial seasonal variation. Of course, temperate and polar zone species active only during a portion of the year would be excluded from this generalization. Species in temperate zones will also be susceptible to disruptions if they depend on seasonal day length cues to trigger critical behaviors.

■ Measurements and units

Measurement of ecological light pollution often involves determination of illumination at a given place. Illumination is the amount of light incident per unit area – not the only measurement relevant to ecological light pollution, but the most common. Light varies in intensity (the number of photons per unit area) and spectral content (expressed by wavelength). Ideally, ecologists should measure illumination in photons per square meter per second with associated measurements of the wavelengths of light present. More often, illumination is measured in lux (or footcandles, the non-SI unit), which expresses the brightness of light as perceived by the human eye. The lux measurement places more emphasis on wavelengths of light that the human eye detects best and less on those that humans perceive poorly. Because other organisms perceive light differently – including wavelengths not visible to humans – future research on ecological light pollution should identify these responses and measure light accordingly. For example, Gal *et al.* (1999) calculated the response curve of mysid shrimp to light and reported illumination in lux adjusted for the spectral sensitivity of the species.

Ecologists are faced with a practical difficulty when communicating information about light conditions. Lux is the standard used by nearly all lighting designers, lighting engineers, and environmental regulators; communication with them requires reporting in this unit. Yet the use of lux ignores biologically relevant information. High-pressure sodium lights, for instance, will attract moths because of the presence of ultraviolet wavelengths, while low-pressure sodium lights of the same intensity, but not producing ultraviolet light, will not (Rydell 1992). Nevertheless, we use lux here, both because of the need to communicate with applied professionals, and because of its current and past widespread usage. As this research field develops, however, measurements of radiation and spectrum relevant to the organisms in question should be used, even though lux will probably continue to be the preferred unit for communication with professionals in other disciplines.

Ecologists also measure aspects of the light environment other than absolute illumination levels. A sudden change in illumination is disruptive for some species (Buchanan 1993), so percent change in illumination, rate, or similar measures may be relevant. Ecologists may also measure luminance (ie brightness) of light sources that are visible to organisms.

© The Ecological Society of America

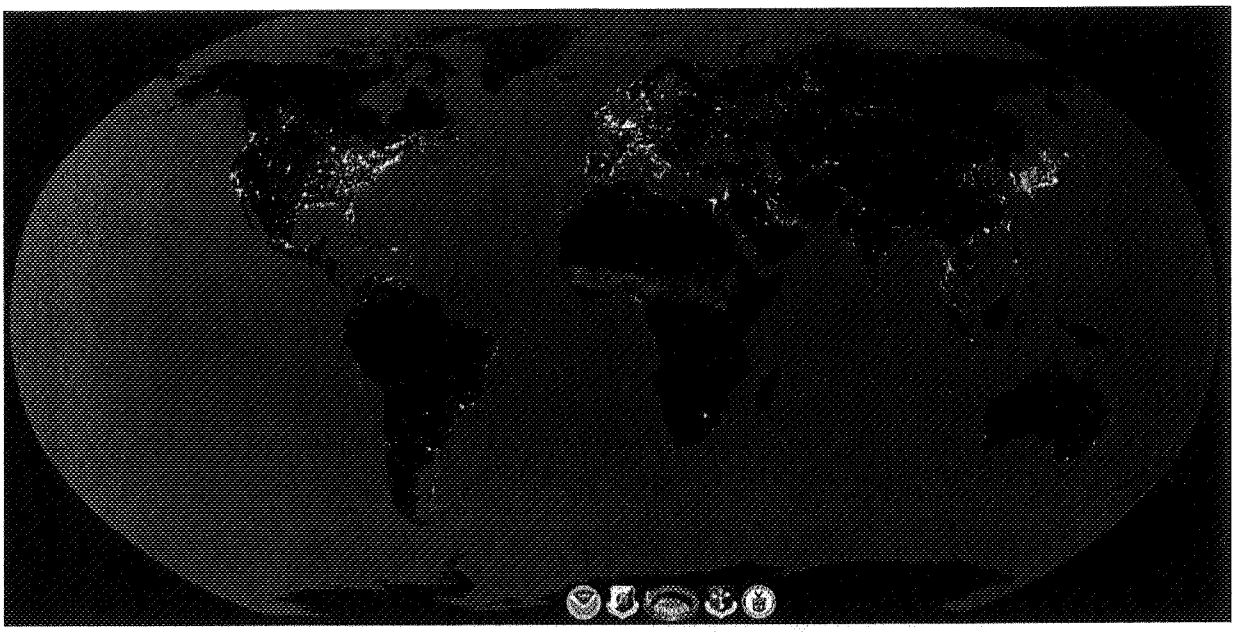


Figure 2. Distribution of artificial lights visible from space. Produced using cloud-free portions of low-light imaging data acquired by the US Air Force Defense Meteorological Satellite Program Operational Linescan System. Four types of lights are identified: (1) human settlements – cities, towns, and villages (white), (2) fires – defined as ephemeral lights on land (red), (3) gas flares (green), and (4) heavily lit fishing boats (blue). See Elvidge et al. *(2001) for details. Image, data processing, and descriptive text by the National Oceanic and Atmospheric Administration's National Geophysical Data Center.*

Behavioral and population ecology

Ecological light pollution has demonstrable effects on the behavioral and population ecology of organisms in natural settings. As a whole, these effects derive from changes in orientation, disorientation, or misorientation, and attraction or repulsion from the altered light environment, which in turn may affect foraging, reproduction, migration, and communication.

Orientation/disorientation and attraction/repulsion

Orientation and disorientation are responses to ambient illumination (ie the amount of light incident on objects in an environment). In contrast, attraction and repulsion occur in response to the light sources themselves and are therefore responses to luminance or the brightness of the source of light (Health Council of the Netherlands 2000).

Increased illumination may extend diurnal or crepuscular behaviors into the nighttime environment by improving an animal's ability to orient itself. Many usually diurnal birds (Hill 1990) and reptiles (Schwartz and Henderson 1991), for example, forage under artificial lights. This has been termed the "night light niche" for reptiles and seems beneficial for those species that can exploit it, but not for their prey (Schwartz and Henderson 1991).

In addition to foraging, orientation under artificial illumination may induce other behaviors, such as territorial singing in birds (Bergen and Abs 1997). For the northern mockingbird (*Mimus polyglottos*), males sing at night before mating, but once mated only sing at night in artificially lighted areas (Derrickson 1988) or during the full moon. The effect of these light-induced behaviors on fitness is unknown.

Constant artificial night lighting may also disorient organisms accustomed to navigating in a dark environment. The best-known example of this is the disorientation of hatchling sea turtles emerging from nests on sandy beaches. Under normal circumstances, hatchlings move away from low, dark silhouettes (historically, those of dune vegetation), allowing them to crawl quickly to the ocean. With beachfront lighting, the silhouettes that would have cued movement are no longer perceived, resulting in disorientation (Salmon *et al.* 1995). Lighting also affects the egg-laying behavior of female sea turtles. (For reviews of effects on sea turtles, see Salmon 2003 and Witherington 1997).

Changes in light level may disrupt orientation in nocturnal animals. The range of anatomical adaptations to allow night vision is broad (Park 1940), and rapid increases in light can blind animals. For frogs, a quick increase in illumination causes a reduction in visual capability from which the recovery time may be minutes to hours (Buchanan 1993). After becoming adjusted to a light, frogs may be attracted to it as well (Jaeger and Hailman 1973; Figure 3).

Birds can be disoriented and entrapped by lights at night (Ogden 1996). Once a bird is within a lighted zone at night, it may become "trapped" and will not leave the lighted area. Large numbers of nocturnally migrating birds are therefore affected when meteorological conditions bring them close to lights, for instance, during inclement weather or late at night when they tend to fly lower.

© The Ecological Society of America

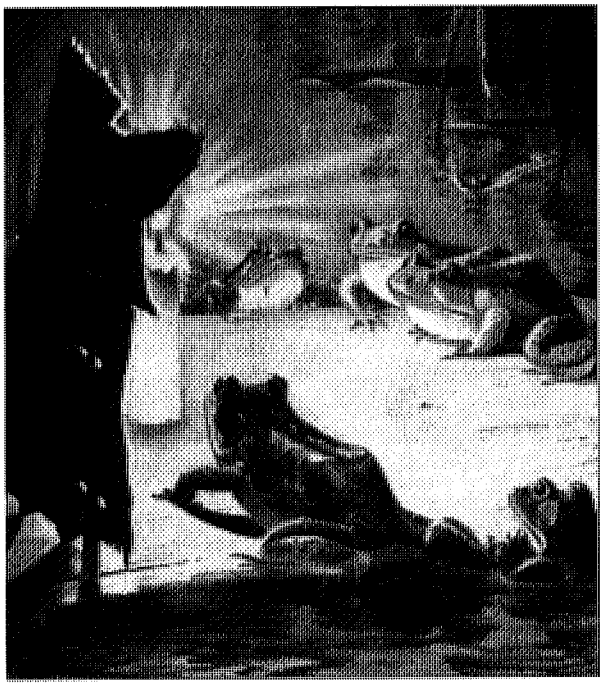


*Figure 3. Attraction of frogs to a candle set out on a small raft. Illustration by Charles Copeland of an experiment in northern Maine or Canada described by William J Long (1901). Twelve or fifteen bullfrogs (*Rana catesbeiana*) climbed on to the small raft before it flipped over.*

Within the sphere of lights, birds may collide with each other or a structure, become exhausted, or be taken by predators. Birds that are waylaid by buildings in urban areas at night often die in collisions with windows as they try to escape during the day. Artificial lighting has attracted birds to smokestacks, lighthouses (Squires and Hanson 1918), broadcast towers (Ogden 1996), boats (Dick and Donaldson 1978), greenhouses, oil platforms (Wiese *et al.* 2001), and other structures at night, resulting in direct mortality, and thus interfering with migration routes.

Many groups of insects, of which moths are one well-known example (Frank 1988), are attracted to lights. Other taxa showing the same attraction include lacewings, beetles, bugs, caddisflies, crane flies, midges, hoverflies, wasps, and bush crickets (Eisenbeis and Hassel 2000; Kolligs 2000; Figure 4). Attraction depends on the spectrum of light – insect collectors use ultraviolet light because of its attractive qualities – and the characteristics of other lights in the vicinity.

Nonflying arthropods vary in their reaction to lights. Some nocturnal spiders are negatively phototactic (ie repelled by light), whereas others will exploit light if available (Nakamura and Yamashita 1997). Some insects are always positively phototactic as an adaptive behavior and others always photonegative (Summers 1997). In arthropods, these responses may also be influenced by the frequent correlations between light, humidity, and temperature.

Natural resource managers can exploit the responses of animals to lights. Lights are sometimes used to attract fish to ladders, allowing them to bypass dams and power plants (Haymes *et al.* 1984). Similarly, lights can attract larval fish to coral reefs (Munday *et al.* 1998). In the terrestrial realm, dispersing mountain lions avoid lighted areas to such a degree that Beier (1995) suggests installing lights to deter them from entering habitats dead-ending in areas where humans live.

Reproduction

Reproductive behaviors may be altered by artificial night lighting. Female *Physalaemus pustulosus* frogs, for example, are less selective about mate choice when light levels are increased, presumably preferring to mate quickly and avoid the increased predation risk of mating activity (Rand *et al.* 1997). Night lighting may also inhibit amphibian movement to and from breeding areas by stimulating phototactic behavior. Bryant Buchanan (pers comm) reports that frogs in an experimental enclosure stopped mating activity during night football games, when lights from a nearby stadium increased sky glow. Mating choruses resumed only when the enclosure was covered to shield the frogs from the light.

In birds, some evidence suggests that artificial night lighting affects the choice of nest site. De Molenaar *et al.*

Courtesy of P.J DeVries

Figure 4. Thousands of mayflies carpet the ground around a security light at Millecoquins Point in Naubinway on the Upper Peninsula of Michigan.

© The Ecological Society of America

(2000) investigated the effects of roadway lighting on black-tailed godwits (*Limosa l. limosa*) in wet grassland habitats. Breeding densities of godwits were recorded over 2 years, comparing lighted and unlighted conditions near a roadway and near light poles installed in a wet grassland away from the road influence. When all other habitat factors were taken into account, the density of nests was slightly but statistically lower up to 300 m away from the lighting at roadway and control sites. The researchers also noted that birds nesting earlier in the year chose sites farther away from the lighting, while those nesting later filled in sites closer to the lights.

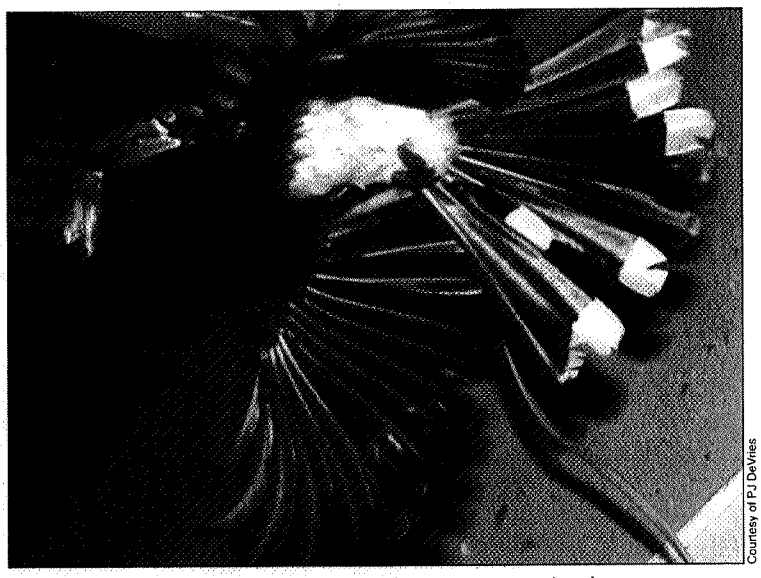


Figure 5. *Crowned hornbill (*Tockus alboterminatus*) hawking insects at a light at the Kibale Forest National Park, Uganda.*

Communication

Visual communication within and between species may be influenced by artificial night lighting. Some species use light to communicate, and are therefore especially susceptible to disruption. Female glow-worms attract males up to 45 m away with bioluminescent flashes; the presence of artificial lighting reduces the visibility of these communications. Similarly, the complex visual communication system of fireflies could be impaired by stray light (Lloyd 1994).

Artificial night lighting could also alter communication patterns as a secondary effect. Coyotes (*Canis latrans*) group howl and group yip-howl more during the new moon, when it is darkest. Communication is necessary either to reduce trespassing from other packs, or to assemble packs to hunt larger prey during dark conditions (Bender *et al.* 1996). Sky glow could increase ambient illumination to eliminate this pattern in affected areas.

Because of the central role of vision in orientation and behavior of most animals, it is not surprising that artificial lighting alters behavior. This causes an immediate conservation concern for some species, while for other species the influence may seem to be positive. Such "positive" effects, however, may have negative consequences within the context of community ecology.

■ Community ecology

The behaviors exhibited by individual animals in response to ambient illumination (orientation, disorientation) and to luminance (attraction, repulsion) influence community interactions, of which competition and predation are examples.

Competition

Artificial night lighting could disrupt the interactions of groups of species that show resource partitioning across illumination gradients. For example, in natural communities, some foraging times are partitioned among species that prefer different levels of lighting. The squirrel treefrog (*Hyla squirrela*) is able to orient and forage at lighting levels as low as 10^{-5} lux and under natural conditions typically will stop foraging at illuminations above 10^{-3} lux (Buchanan 1998). The western toad (*Bufo boreas*) forages only at illuminations between 10^{-1} and 10^{-5} lux, while the tailed frog (*Ascaphus truei*) forages only during the darkest part of the night at below 10^{-5} lux (Hailman 1984). While these three species are not necessarily sympatric (ie inhabiting the same area), and differ in other niche dimensions, they illustrate the division of the light gradient by foragers.

Many bat species are attracted to insects that congregate around light sources (Frank 1988). Although it may seem that this is a positive effect, the increased food concentration benefits only those species that exploit light sources and could therefore result in altered community structure. Faster-flying species of bats congregate around lights to feed on insects, but other, slower-flying species avoid lights (Blake *et al.* 1994; Rydell and Baagøe 1996).

Changes in competitive communities occur as diurnal species move into the "night light niche" (Schwartz and Henderson 1991). This concept, as originally described, applies to reptiles, but easily extends to other taxa, such as spiders (Frank pers comm) and birds (Hill 1990; Figure 5).

Predation

Although it may seem beneficial for diurnal species to be able to forage longer under artificial lights, any gains from increased activity time can be offset by increased predation risk (Gotthard 2000). The balance between gains from extended foraging time and risk of increased preda-

© The Ecological Society of America

tion is a central topic for research on small mammals, reptiles, and birds (Kotler 1984; Lima 1998). Small rodents forage less at high illumination levels (Lima 1998), a tendency also exhibited by some lagomorphs (Gilbert and Boutin 1991), marsupials (Laferrier 1997), snakes (Klauber 1939), bats (Rydell 1992), fish (Gibson 1978), aquatic invertebrates (Moore *et al.* 2000), and other taxa.

Unexpected changes in light conditions may disrupt predator–prey relationships. Gliwicz (1986, 1999) describes high predation by fish on zooplankton during nights when the full moon rose hours after sunset. Zooplankton had migrated to the surface to forage under cover of darkness, only to be illuminated by the rising moon and subjected to intense predation. This "lunar light trap" (Gliwicz 1986) illustrates a natural occurrence, but unexpected illumination from human sources could disrupt predator–prey interactions in a similar manner, often to the benefit of the predator.

Available research shows that artificial night lighting disrupts predator–prey relationships, which is consistent with the documented importance of natural light regimes in mediating such interactions. In one example, harbor seals (*Phoca vitulina*) congregated under artificial lights to eat juvenile salmonids as they migrated downstream; turning the lights off reduced predation levels (Yurk and Trites 2000). Nighttime illumination at urban crow roosts was higher than at control sites, presumably because this helps the crows avoid predation from owls (Gorenzel and Salmon 1995). Desert rodents reduced foraging activity when exposed to the light of a single camp lantern (Kotler 1984). Frank (1988) reviews predation by bats, birds, skunks, toads, and spiders on moths attracted to artificial lights. Mercury vapor lights, in particular, disrupt the interaction between bats and tympanate moths by interfering with moth detection of ultrasonic chirps used by bats in echolocation, leaving moths unable to take their normal evasive action (Svensson and Rydell 1998).

From these examples, it follows that community structure will be altered where light affects interspecific interactions. A "perpetual full moon" from artificial lights will favor light-tolerant species and exclude others. If the darkest natural conditions never occur, those species that maximize foraging during the new moon could eventually be compromised, at risk of failing to meet monthly energy budgets. The resulting community structure would be simplified, and these changes could in turn affect ecosystem characteristics.

■ Ecosystem effects

The cumulative effects of behavioral changes induced by artificial night lighting on competition and predation have the potential to disrupt key ecosystem functions. The spillover effects from ecological light pollution on aquatic invertebrates illustrates this point. Many aquatic invertebrates, such as zooplankton, move up and down within the water column during a 24-hour period, in a behavior known as "diel vertical migration". Diel vertical migration presumably results from a need to avoid predation during lighted conditions, so many zooplankton forage near water surfaces only during dark conditions (Gliwicz 1986). Light dimmer than that of a half moon ($<10^{-1}$ lux) is sufficient to influence the vertical distribution of some aquatic invertebrates, and indeed patterns of diel vertical migration change with the lunar cycle (Dodson 1990).

Moore *et al.* (2000) documented the effect of artificial light on the diel migration of the zooplankton *Daphnia* in the wild. Artificial illumination decreased the magnitude of diel migrations, both in the range of vertical movement and the number of individuals migrating. The researchers hypothesize that this disruption of diel vertical migration may have substantial detrimental effects on ecosystem health. With fewer zooplankton migrating to the surface to graze, algae populations may increase. Such algal blooms would then have a series of adverse effects on water quality (Moore *et al.* 2000).

The reverberating effects of community changes caused by artificial night lighting could influence other ecosystem functions. Although the outcomes are not yet predictable, and redundancy will buffer changes, indications are that light-influenced ecosystems will suffer from important changes attributable to artificial light alone and in combination with other disturbances. Even remote areas may be exposed to increased illumination from sky glow, but the most noticeable effects will occur in those areas where lights are close to natural habitats. This may be in wilderness where summer getaways are built, along the expanding front of suburbanization, near the wetlands and estuaries that are often the last open spaces in cities, or on the open ocean, where cruise ships, squid boats, and oil derricks light the night.

■ Conclusions

Our understanding of the full range of ecological consequences of artificial night lighting is still limited, and the field holds many opportunities for basic and applied research. Studies of natural populations are necessary to investigate hypotheses generated in the laboratory, evidence of lunar cycles in wild populations, and natural history observations. If current trends continue, the influence of stray light on ecosystems will expand in geographic scope and intensity. Today, 20% of the area of the coterminous US lies within 125 m of a road (Riiters and Wickham 2003). Lights follow roads, and the proportion of ecosystems uninfluenced by altered light regimes is decreasing. We believe that many ecologists have neglected to consider artificial night lighting as a relevant environmental factor, while conservationists have certainly neglected to include the nighttime environment in reserve and corridor design.

Successful investigation of ecological light pollution will require collaboration with physical scientists and

© The Ecological Society of America

engineers to improve equipment to measure light characteristics at ecologically relevant levels under diverse field conditions. Researchers should give special consideration to the tropics, where the constancy of day–night lighting patterns has probably resulted in narrow niche breadths relative to illumination. Aquatic ecosystems deserve increased attention as well, because despite the central importance of light to freshwater and marine ecology, consideration of artificial lighting has so far been limited. Research on the effects of artificial night lighting will enhance understanding of urban ecosystems – the two National Science Foundation (NSF) urban Long Term Ecological Research sites are ideal locations for such efforts.

Careful research focusing on artificial night lighting will probably reveal it to be a powerful force structuring local communities by disrupting competition and predator–prey interactions. Researchers will face the challenge of disentangling the confounding and cumulative effects of other facets of human disturbance with which artificial night lighting will often be correlated, such as roads, urban development, noise, exotic species, animal harvest, and resource extraction. To do so, measurements of light disturbance should be included routinely as part of environmental monitoring protocols, such as the NSF's National Ecological Observatory Network (NEON). Future research is likely to reveal artificial night lighting to be an important, independent, and cumulative factor in the disruption of natural ecosystems, and a major challenge for their preservation.

Ecologists have studied diel and lunar patterns in the behavior of organisms for the greater part of a century (see Park 1940 and references therein), and the deaths of birds from lights for nearly as long (Squires and Hanson 1918). Humans have now so altered the natural patterns of light and dark that these new conditions must be afforded a more central role in research on species and ecosystems beyond the instances that leave carcasses on the ground.

Acknowledgements

We thank PJ DeVries for his photographs, and B Tuttle and C Elvidge for the satellite image. Research was supported in part by the Conservation and Research Foundation. We are grateful for constructive comments and advice from W Briggs, BW Buchanan, KD Frank, JE Lloyd, JR Longcore, MV Moore, WA Montevecchi, G Perry, and M Salmon.

References

Beier P. 1995. Dispersal of juvenile cougars in fragmented habitat. *J Wildlife Manage* **59**: 228–37.

Bender DJ, Bayne EM, and Brigham RM. 1996. Lunar condition influences coyote (*Canis latrans*) howling. *Am Midl Nat* **136**: 413–17.

Bergen F and Abs M. 1997. Etho-ecological study of the singing activity of the blue tit (*Parus caeruleus*), great tit (*Parus major*) and chaffinch (*Fringilla coelebs*). *J Ornithol* **138**: 451–67.

Blake D, Hutson AM, Racey PA, *et al.* 1994. Use of lamplit roads by foraging bats in southern England. *J Zool* **234**: 453–62.

Buchanan BW. 1993. Effects of enhanced lighting on the behaviour of nocturnal frogs. *Anim Behav* **45**: 893–99.

Buchanan BW. 1998. Low-illumination prey detection by squirrel treefrogs. *J Herpetol* **32**: 270–74.

Cinzano P, Falchi F, and Elvidge CD. 2001. The first world atlas of the artificial night sky brightness. *Mon Not R Astron Soc* **328**: 689–707.

De Molenaar JG, Jonkers DA, and Sanders ME. 2000. Road illumination and nature. III. Local influence of road lights on a black-tailed godwit (*Limosa l. limosa*) population. Wageningen, The Netherlands: Alterra.

Derrickson KC. 1988. Variation in repertoire presentation in northern mockingbirds. *Condor* **90**: 592–606.

Dick MH and Donaldson W. 1978. Fishing vessel endangered by crested auklet landings. *Condor* **80**: 235–36.

Dodson S. 1990. Predicting diel vertical migration of zooplankton. *Limnol and Oceanogr* **35**: 1195–1200.

Eisenbeis G and Hassel F. 2000. Zur Anziehung nachtaktiver Insekten durch Straßenlaternen – eine Studie kommunaler Beleuchrungseinrichtungen in der Agrarlandschaft Reinhessens [Attraction of nocturnal insects to street lights – a study of municipal lighting systems in a rural area of Rheinhessen (Germany)]. *Natur und Landschaft* **75**: 145–56.

Elvidge C, Baugh KE, Kihn EA, and Davis ER. 1997. Mapping city lights with nighttime data from the DMSP Operational Linescan System. *Photogramm Eng Rem S* **63**: 727–34.

Elvidge CD, Imhoff ML, Baugh KE, *et al.* 2001. Nighttime lights of the world: 1994–95. ISPRS *J Photogramm Rem S* **56**: 81–99.

Frank KD. 1988. Impact of outdoor lighting on moths: an assessment. *J Lepidop Soc* **42**: 63–93.

Gal G, Loew ER, Rudstam LG, and Mohammadian AM. 1999. Light and diel vertical migration: spectral sensitivity and light avoidance by *Mysis relicta*. *Can J Fish Aquat Sci* **56**: 311–22.

Gibson RN. 1978. Lunar and tidal rhythms in fish. In: Thorpe JE (Ed). Rhythmic activity of fishes. London: Academic Press.

Gilbert BS and Boutin S. 1991. Effect of moonlight on winter activity of snowshoe hares. *Arctic Alpine Res* **23**: 61–65.

Gliwicz ZM. 1986. A lunar cycle in zooplankton. *Ecology* **67**: 883–97.

Gliwicz ZM. 1999. Predictability of seasonal and diel events in tropical and temperate lakes and reservoirs. In: Tundisi JG, Straskraba M (Eds). Theoretical reservoir ecology and its applications. São Carlos: International Institute of Ecology.

Gorenzel WP and Salmon TP. 1995. Characteristics of American Crow urban roosts in California. *J Wildlife Manage* **59**: 638–45.

Gotthard K. 2000. Increased risk of predation as a cost of high growth rate: an experimental test in a butterfly. *J Anim Ecol* **69**: 896–902.

Hailman JP. 1984. Bimodal nocturnal activity of the western toad (*Bufo boreas*) in relation to ambient illumination. *Copeia* **1984**: 283–90.

Haymes GT, Patrick PH, and Onisto LJ. 1984. Attraction of fish to mercury vapor light and its application in a generating station forebay. *Int Rev Hydrobiol* **69**: 867–76.

Health Council of the Netherlands. 2000. Impact of outdoor lighting on man and nature. The Hague: Health Council of the Netherlands. Publication No. 2000/25E.

Hill D. 1990. The impact of noise and artificial light on waterfowl behaviour: a review and synthesis of the available literature. Norfolk, United Kingdom: British Trust for Ornithology Report No. 61.

Jaeger RG and Hailman JP. 1973. Effects of intensity on the phototactic responses of adult anuran amphibians: a comparative survey. *Z Tierpsychol* **33**: 352–407.

Klauber LM. 1939. Rattlesnakes: their habits, life histories, and influence on mankind. Berkeley, CA: University of California Press.

© The Ecological Society of America

Kolligs D. 2000. Ökologische Auswirkungen künstlicher Lichtquellen auf nachtaktive Insekten, insbesondere Schmetterlinge (Lepidoptera) [Ecological effects of artificial light sources on nocturnally active insects, in particular on moths (Lepidoptera)]. *Faunistisch-Ökologische Mitteilungen Suppl* **28**: 1–136.

Kotler BP. 1984. Risk of predation and the structure of desert rodent communities. *Ecology* **65**: 689–701.

Laferrier J. 1997. The influence of moonlight on activity of wooly opossums (*Caluromys philander*). *J Mammal* **78**: 251–55.

Lima SL. 1998. Stress and decision-making under the risk of predation: recent developments from behavioral, reproductive, and ecological perspectives. *Adv Stud Behav* **27**: 215–90.

Lloyd JE. 1994. Where are the lightningbugs? *Fireflyer Companion* **1**: 1, 2, 5, 10.

Long WJ. 1901. Wilderness ways. Boston, MA: Ginn and Company.

Moore MV, Pierce SM, Walsh HM, *et al.* 2000. Urban light pollution alters the diel vertical migration of *Daphnia*. *Verh Internat Verein Limnol* **27**: 779–82.

Munday PL, Jones GP, Ohman MC, and Kaly UL. 1998. Enhancement of recruitment to coral reefs using light-attractors. *B Mar Sci* **63**: 581–88.

Nakamura T and Yamashita S. 1997. Phototactic behavior of nocturnal and diurnal spiders: negative and positive phototaxes. *Zool Sci* **14**: 199–203.

Ogden LJE. 1996. Collision course: the hazards of lighted structures and windows to migrating birds. Toronto, Canada: World Wildlife Fund Canada and Fatal Light Awareness Program.

Outen AR. 2002. The ecological effects of road lighting. In: Sherwood B, Culter D, and Burton JA (Eds). Wildlife and roads: the ecological impact. London, UK: Imperial College Press.

Park O. 1940. Nocturnalism — the development of a problem. *Ecol Monogr* **10**: 485–536.

Rand AS, Bridarolli ME, Dries L, and Ryan MJ. 1997. Light levels influence female choice in Tungara frogs: predation risk assessment? *Copeia* **1997**: 447–50.

Riiters KH and Wickham JD. 2003. How far to the nearest road? *Front Ecol Environ* **1**: 125–29.

Rydell J. 1992. Exploitation of insects around streetlamps by bats in Sweden. *Funct Ecol* **6**: 744–50.

Rydell J and Baagøe HJ. 1996. Gatlampor ökar fladdermössens predation på fjärilar [Streetlamps increase bat predation on moths]. *Entomol Tidskr* **117**: 129–35.

Salmon M. 2003. Artificial night lighting and sea turtles. *Biologist* **50**: 163–68.

Salmon M, Tolbert MG, Painter DP, *et al.* 1995. Behavior of loggerhead sea turtles on an urban beach. II. Hatchling orientation. *J Herpetol* **29**: 568–76.

Schmiedel J. 2001. Auswirkungen künstlicher Beleuchtung auf die Tierwelt – ein Überblick [Effects of artificial lighting on the animal world – an overview]. *Schriftenreihe Landschaftspflege und Naturschutz* **67**: 19–51.

Schwartz A and Henderson RW. 1991. Amphibians and reptiles of the West Indies: descriptions, distributions, and natural history. Gainesville, FL: University of Florida Press.

Squires WA and Hanson HE. 1918. The destruction of birds at the lighthouses on the coast of California. *Condor* **20**: 6–10.

Summers CG. 1997. Phototactic behavior of *Bemisia argentifolii* (Homoptera: Aleyrodidae) crawlers. *Ann Entomol Soc Am* **90**: 372–79.

Svensson AM and Rydell J. 1998. Mercury vapour lamps interfere with the bat defence of tympanate moths (*Operophtera* spp; Geometridae). *Anim Behav* **55**: 223–26.

Verheijen FJ. 1985. Photopollution: artificial light optic spatial control systems fail to cope with. Incidents, causations, remedies. *Exp Biol* **44**: 1–18.

Wiese FK, Montevecchi WA, Davoren GK, *et al.* 2001. Seabirds at risk around offshore oil platforms in the North-west Atlantic. *Mar Pollut Bull* **42**: 1285–90.

Witherington BE. 1997. The problem of photopollution for sea turtles and other nocturnal animals. In: Clemmons JR and Buchholz R (Eds). Behavioral approaches to conservation in the wild. Cambridge, UK: Cambridge University Press.

Yurk H and Trites AW. 2000. Experimental attempts to reduce predation by harbor seals on out-migrating juvenile salmonids. *Trans Am Fish Soc* **129**: 1360–66.

 © The Ecological Society of America

HACIENDA HEIGHTS IMPROVEMENT ASSOCIATION, INC.
POST OFFICE BOX 5235 • HACIENDA HEIGHTS, CA 91745

July 21, 2011

Mr. Jeff Adams, Project Manager
City of Whittier
13230 Penn Street
Whittier, CA 90602

Dear Mr. Adams:

The Hacienda Heights Improvement Association has long been involved in efforts to preserve the Puente-Chino Hills Wildlife Corridor and the great open space resources shared by residents of Hacienda Heights and Whittier. Councilman Bob Henderson provided a presentation to members of our community at our Board Meeting on March 21, 2011, regarding the proposed mineral extraction project proposed in the hills. We have reviewed the revised Draft Environmental Impact Report recently released for public comment. Our comments are submitted below.

HHIA understands the importance of the proposed mineral extraction project in providing funds to continue work to maintain and restore the open space lands in the western Puente Hills as well as potentially support acquisition of other properties within the wildlife corridor that will assure that species diversity within the Puente Hills Native Habitat Preserve remains vibrant. Of particular importance are properties east of the Preserve which, if improperly developed, could sever corridor connectivity for many important species. On the other hand, we also recognize the potential for the proposed project to impair wildlife and habitat values in the Preserve itself. We therefore support alternatives which maximize mineral extraction from a single point near the perimeter of the property, and do not support development or improvement of the North Access Road, which traverses a significant length across Preserve areas. We believe habitat disturbance for access development for roads or pipelines should be minimized and located as close as possible to developed areas.

Mr. Jeff Adams, Project Manager
July 18, 2011
Page Two

HHIA's specific comments regarding the DEIR are as follows:

1. HHIA agrees with the proposed 3:1 habitat replacement ratio. Replacement habitat should be planted at least two years prior to removal of habitat areas being disturbed and disturbance of existing habitat should be done only after monitoring confirms effectiveness of replacement. HHIA-1
2. Wildlife movement corridors through the preserve area should be defined more specifically in the DEIR in evaluating project impacts, to assure that heavy construction in the project area will not impair this movement. HHIA-2
3. Addition of an improved wildlife crossing of Colima Road north of the Service Tunnel should be included in the project cost. HHIA-3
4. The North Access Road should not be considered as the primary access road because of gnatcatcher habitat damage. BIO 1a and 1d do not properly mitigate impacts to this sensitive species and would create fewer impacts if replacement habitat is established prior to habitat destruction and the north road is eliminated from impacts. This species is just beginning to recover in the Puente Hills from past oil extraction and grazing, in contrast to the nearby Montebello Hills, where a dense gnatcatcher population currently exists. HHIA-4
5. Wildlife movement and dispersal from Colima Road crossing points should be clearly described and mapped to assure that project activities will not interfere with these movements, which are critical to maintaining viability of the wildlife corridor into areas located in Hacienda Heights. HHIA-5
6. The Service Tunnel is a critical link across Colima Road for many species. The project should not be allowed to impact wildlife movement or daytime recreational use of this facility. HHIA-6
7. Project permits should clearly state an annual amount of funding dedicated to the Preserve, with provisions for escalation, adequate to support all required activities for maintaining the Preserve; continued acquisition of key parcels, including those in and near Hacienda Heights; and restoration of habitat value in the Preserve. HHIA-7
8. Significant project activities should not occur concurrently with Edison's Tehachapi Renewables transmission line relocation in the Preserve area. HHIA-8
9. If the Loop Trail route is used for road and/or pipeline routing, consideration should be given to development of an alternative alignment for the loop trail. Trail alignments in rolling terrain need not comply with acceptable curves, clearances, and grades appropriate for roads. HHIA-9

Mr. Jeff Adams, Project Manager
July 18, 2011
Page Three

10. If Mar Vista and Catalina Avenues are used for project access, it seems easy to restrict oil production traffic to non-peak times on Mar Vista Avenue through shift change scheduling and restrictions on times for heavy equipment movement. It is expected that many workers would preferentially travel through Hacienda Heights from the Pomona (60) Freeway in this case. Similar scheduling adjustments should be adopted at least through the test well and construction phases when traffic rates are higher, to avoid traffic impacts at key intersections along Hacienda Blvd., Colima Road, and Mar Vista Avenue. HHIA-10

11. The alternatives analysis seems overly simplistic. The North access road is equally destructive of potential recreational use of the existing road as is use of the loop trail. It is far more destructive of habitat resources because of clearing requirements and is far longer than all other routes combined. Alternatives should be considered that minimize or eliminate the need to use roads requiring construction of improvements over that already in existence and in use. Impacts of industrial traffic on very narrow Penn Avenue do not appear to be adequately considered. HHIA-11

We appreciate the opportunity to provide these comments. If you wish further clarification, please contact Mr. Jeff Yann, Chairperson of our Environmental Committee, at (626) 968-4572.

Sincerely yours,

John M. Eckman

John M. Eckman,
President

cc: HHIA Board of Directors

Appendix M

From: Myra Rios [mrios@skapiklaw.com]
Sent: Friday, June 10, 2011 2:00 PM
To: Kathryn Marshall; Jeff Adams
Cc: gskapik@skapiklaw.com
Subject: [BULK] Open Space Legal Defense Fund v. City of Whittier -- Attached is Notice of Commencement of Action
Attachments: 6-10-11-Notice of Intent to file Petition-Validation.pdf

Importance: Low

Expires: Wednesday, December 07, 2011 12:00 AM

Ms. Marshall and Mr. Adams:

Please find attached Open Space Legal Defense Funds' Notice of Commencement of Action. A copy will be sent by U.S. Mail as well. Thank you.

Myra Rios, Legal Secretary
for Geralyn L. Skapik, Esq.
and Mark C. Allen, III, Esq.
CLAREMONT LAND GROUP
250 W. First Street, Suite 330
Claremont, CA 91711
Tel: (909) 398-4404; Fax: (909) 398-1883
Email: mrios@skapiklaw.com

CLAREMONT LAND GROUP

Geralyn L. Skapik
gskapik@ClaremontLandGroup.com

Attorneys
250 West First Street, Suite 330
Claremont, CA 91711
(909) 354-8825
Fax (909) 398-1883

FILE NO.:CLG.002

June 10, 2011

VIA EMAIL & CERTIFIED MAIL
kmarshall@cityofwhittier.org
jadams@cityofwhittier.org

Kathryn A. Marshall, City Clerk-Treasurer
Jeff Adams, Planning Department
CITY OF WHITTIER
13230 Penn Street
Whittier, CA 90602

Re: **NOTICE OF COMMENCEMENT OF ACTION**
Open Space Legal Defense Fund, et al. v. City of Whittier, et al.

OSLDF-1

Notice is hereby given that under Section 21167.5 of the California Public Resources Code, Petitioner, Open Space Legal Defense Fund (OSLDF), a non-profit organization, intends to file a petition under the provisions of the California Environmental Quality Act and Public Resources Code Section 21000 *et seq*, 5539 et seq, 5540; and Code of Civil Procedure Sections 860 *et seq.*, 1060 *et seq.*, and 1084 *et seq.*, among other provisions of law, against Respondents, The City of Whittier and Whittier City Council ("Whittier"), challenging the validity of proceedings relating to and involving the contract entered on April 12, 2011, with Matrix Oil relating to the Whittier Matrix Oil Project, in violation of California Environmental Quality Act (Pub. Res. Code § 21000 *et seq.*). The action may also challenge your agency's approval of the project based on one or more violations of other laws.

Very truly yours,

CLAREMONT LAND GROUP

GERALYN L. SKAPIK
Attorneys for Plaintiffs,
OPEN SPACE LEGAL DEFENSE, et al.

GLS:mr

PROOF OF SERVICE

I declare that I am over the age of eighteen (18) and not a party to this action. My business address is 250 West First Street, Suite 330, Claremont, CA 91711.

On June 10, 2011, I served the following document(s): **NOTICE OF COMMENCEMENT OF ACTION** on the interested parties in this action by placing a true and correct copy of such document, enclosed in a sealed envelope, addressed as follows:

Kathryn A. Marshall, City Clerk-Treasurer
Jeff Adams, Planning Department
CITY OF WHITTIER
13230 Penn Street
Whittier, CA 90602

(X) **By U.S. Postal/Certified Mail**. I am readily familiar with the business' practice for collection and processing of correspondence for mailing with the United States Postal Service. I know that the correspondence was deposited with the United States Postal Service on the same day this declaration was executed in the ordinary course of business. I know that the envelope was sealed and, with postage thereon fully prepaid, placed for collection and mailing on this date in the United States mail at Claremont, California.

( ) **By overnight courier**, I caused the above-referenced document(s) to be deposited in a box or other facility regularly maintained by the overnight courier, or I delivered the above-referenced document(s) to an overnight courier service, for delivery to the above addressee(s).

( ) **By facsimile**. The facsimile transmission of the foregoing document was reported as complete and without error. A copy of the transmission report as issued by the transmission facsimile machine is attached pursuant to California Rules of Court, Rule 2.306.

(X) (State) I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

( ) (Federal) I declare that I am employed in the office of a member of the bar of this court at whose direction the service was made.

Executed June 10, 2011, in Claremont, California.

Myra Rios

MYRA RIOS

F:\ENVIRON\CLG.002 (OpenSpace)\pleadings\Notice of Intent to file Petition-Validation 6-10-11.doc

CLAREMONT LAND GROUP

Geralyn L. Skapik
GSkapik@ClaremontLandGroup.com

Attorneys
250 West First Street, Suite 330
Claremont, CA 91711
(909) 354-8825
Fax (909) 398-1883

FILE NO.: CLG.002

July 20, 2011

Members of the Whittier City Council
c/o Jeff Adams
Community Development Department
CITY OF WHITTIER
13230 Penn Street
Whittier, California 90602

SUBJECT: Comments on the Revised Draft EIR for the Whittier Main Oil Field Development Project on behalf of Open Space Legal Defense Fund (OSLDF)

Dear Members of the City Council:

The taxpayers of the State of California entrusted the City of Whittier with protection of 1,756 acres of land designated Significant Ecological Areas by Los Angeles County and some of the last remaining chaparral, native oak woodlands, and coastal sage scrub in the Southern California. As we have noted in other contexts, the City has ignored its responsibilities as a trustee of this irreplaceable asset. Instead, the City has joined with an oil company to profit from this protected area by leasing 1,280 acres, more or less, of land to Matrix Oil. Worse, the City has chosen to shortcut the approval process. This Revised Draft EIR is an example of a poor attempt by the City to justify a decision already taken.

It is also an attempt to perpetuate three major misrepresentations associated with this project. It is now time to put these three major misrepresentations to bed.

The Three Major Misrepresentations Associated With This Project Are:

Major Misrepresentation 1: The Project Only Impacts 7 Acres Of The Habitat Preserve And The Remaining 1280 Acres Of The Preserve Will Remain Protected

The Revised DEIR for the phase 1 project admits to at least 40.44 acres of impact: 30.58 acres from construction and grading and 9.86 additional acres of impact from noise. (See Revised DEIR Table 4.2-3). OSLDF2-1

In addition to the land which would be directly impacted by the phase 1 project, the Lease Agreement provides for ***an unlimited number of additional future CUP applications*** for oil, gas and mineral extraction within the "1,280 acres more or less." The Lease Agreement permits Matrix to mine for oil and gas throughout the 1,280 acres. The City Council has distorted this

fact to the residents of Whittier as it has been continually represented that Matrix will only have access and use 7 acres within the Preserve.

Major Misrepresentation 2: The Proposed Phase 1 Project Is The "Environmentally Superior Alternative" From The Original DEIR

In fact, the proposed project analyzed in the Revised DEIR isn't even the same as the project described in the City's Notice of Preparation (NOP) for the Revised DEIR. The mistakenly identified "Environmentally Superior Alternative" from the Original DEIR has morphed from a few lines on a map, and from an alternative described in the Original DEIR as disturbing an area "equal to approximately 3 acres," to the project described in the NOP, to the current project analyzed in the Revised DEIR. Along the way, the amount of landform modification and the acreage of impacts has increased, but the number and nature of the identified significant unmitigated impacts has unbelievable remained the same. OSLDF 2-2

COMPARISON OF THE AMOUNT OF CUT, FILL AND SOIL EXPORT ASSOCIATED WITH THE DIFFERENT VERSIONS OF THE CONSOLIDATED SITE			
VERSION OF THE PROJECT:	**CUT (CY)**	**FILL (CY)**	**SOIL EXPORT (CY)**
"Environmentally Superior Alternative From Original DEIR"	53,670	30,500	22,170
Matrix's April 5, 2011 Revised Cup Submittal (NOP Project)	131,000	43,500	87,500
Proposed Project In Revised DEIR	180,000	31,000	149,000

The Revised DEIR indicates the phase 1 project analyzed in the Revised DEIR involves 211,000 cubic yards of landform modification in the form of: 180,000 cubic yards of cut, 31,000 cubic yards of fill, and 149,000 cubic yards of soil export, for just the consolidated site alone. Roadway construction would result in additional landform modification. By way of comparison the Pasadena Rose Bowl, filled to the rim, would hold approximately 400,000 cubic yards of soil, according to the County. This is a tremendous amount of landform modification, yet the Revised DEIR seeks to perpetuate Misrepresentation 2.

Major Misrepresentation 3: The Proposed Project Will Not Harm The Habitat Preserve

The Revised DEIR states that there are no significant unmitigated biological resource impacts, or biological resource-related General Plan or Habitat Authority Resource Management Plan consistency impacts, despite the fact the phase 1 project would be located within the core habitat area of a Habitat Preserve. The core habitat area is the portion of the Preserve with restricted human access due to the import of its biological value. The phase 1 project is also located within OSLDF2 -3

federally designated Critical Habitat for the California gnatcatcher, and within a designated wildlife corridor, with its own joint powers authority -- the Wildlife Corridor Conservation Authority.

Although the Revised DEIR acknowledges that the proposed project will result in 40.44 acres of impacts, including 30.99 acres of impacts to plant communities, the Revised DEIR provides for only 27.41 acres of total mitigation. We would direct your attention to Mitigation Measures Bio-1a, Bio-1b and Bio-2a and invite you to do the math.

The City's EIR process and representations appear designed to confuse the reader into thinking that the proposed project is the environmentally superior alternative, in the hopes that the reader gets so caught up in the shell game that they will forget there is a better option: No Project.

Clearly the Revised DEIR for the Whittier Main Oil Field Development Project is another example of a step in a fatally flawed process resulting in a fatally flawed project and DEIR. This project is a classic example of a government rushing to sell off precious public resources without appropriate prior analysis or due consideration. The result is:

(a) A violation of the public trust;
(b) Piecemeal planning and environmental analysis;
(c) P*ost hoc* rationalization for a predetermined result;
(d) An EIR which analyzes a proposed project which violates the terms of the executed contract between Matrix Oil and the Lead Agency and which results in far more than the 6 admitted significant unavoidable impacts identified in the Revised DEIR;
(e) An EIR which fails to analyze the project as a whole;
(f) Improper deferral of mitigation and analysis to the indefinite future;
(h) An inadequate alternatives analysis;
(i) The identification of the project as the "environmentally superior alternative" when clearly it is not;
(j) A project which does not appear to meet the objectives of the Lead Agency;
(k) A project which does not meet the conditions necessary for a Conditional Use Permit; and,
(l) A Lease Agreement and project that violates the terms of Charter of the City of Whittier.

Attached to this letter are OSLDF's Comments on the Revised DEIR prepared by Dr. Susan O'Carroll. Dr. O'Carroll has been managing the preparation of environmental documents for twenty years. In addition to preparing numerous EIRs, she has been hired by cities to provide customized CEQA training for their staffs, as contract staff overseeing the environmental review of controversial projects, and to cure defects in documents prepared by other consultants.

As you can see from Dr. O'Carroll's Comment Letter, approval of this project would not only be a clear and unequivocal violation of CEQA, but would also violate the City Charter, as well as the trust of the citizens of Whittier. Knowing that this project would go beyond 25 years, why isn't this project, that would severely impact the lives all Whittier residents, being put to a vote of the public. It is

extremely arrogant for a Council of 5 to make a decision, which contains such ramifications and impacts, without first preparing environmental review for the whole of the actions allowed under the Lease Agreement, accurately informing the people of Whittier of the environmental impacts, and placing the issue before the Whittier residents for a vote. The fact that the City has moved forward with this project without following CEQA, has violated the terms of its Proposition A agreement with the County by not seeking consent from the County BEFORE entering into a lease with Matrix, and has conducted backroom deals with an oil company that continually misrepresents their intentions, is reprehensible. We urge the Whittier City Council to deny the project. Pursuant to CEQA Guidelines Section 15042 and Paragraphs 1 and 6.1 of the Lease Agreement, we ask the City Council to:

- ☑ Find the proposed project inconsistent with the terms of the lease, and inconsistent with the City Council's promises to the community that they will not approve a project which results in harm to the Habitat Preserve.
- ☑ Suspend processing of the EIR.
- ☑ Deny the project.
- ☑ Cancel the contract.

Very truly yours,

CLAREMONT LAND GROUP

Geralyn L. Skapik

GERALYN L. SKAPIK

GLS:mr

July 19, 2011

Ms. Geralyn L. Skapik, Esquire
CLAREMONT LAND GROUP
250 West First Street, Suite 330

Claremont, CA 91711

SUBJECT: Comments on the Revised Draft EIR for the Whittier Main Oil Field Development Project on behalf of Open Space Legal Defense Fund (OSLDF)

Dear Ms. Skapik:

As requested by Open Space Legal Defense Fund (OSLDF) and your firm, I have reviewed the June 2011 Revised Draft Environment Impact Report (Revised DEIR) for the Whittier Main Oil Field Development Project prepared for the Revised CUP Application filed by Matrix Oil in April and May of 2011.

SUMMARY

As detailed in this comment letter, like the original October 2010 DEIR (Original DEIR) for the first of Matrix's CUP applications under the Lease Agreement, the Revised DEIR for this project is also fundamentally and basically inadequate and conclusory in nature. In fact, the Revised DEIR reaches conclusions that defy common sense. This is most likely due to an apparent effort to be consistent with the findings of the Original fatally flawed DEIR, regarding the impacts of the "Consolidated Site/Environmentally Superior Alternative." The new project analyzed in the Revised DEIR purports to be the "Consolidated Site/Environmentally Superior Alternative" from the Original DEIR, but in fact includes additional features and involves significantly more landform modification than the alternative described in the Original DEIR.

Even more troubling is the City's continued failure to analyze the whole of the action. The City received a number of comments during the public comment period regarding the fact that the Original DEIR failed to analyze the whole of the actions allowed under the Lease Agreement. In fact the California Department of Fish and Game, a responsible agency, urged in its comment letter on the Original DEIR that the Lease Agreement be invalidated pending completion of a CEQA document "that includes the whole of the action which includes the Lease Agreement." Instead of using the imminent expiration of the Lease Agreement (due to failure of the applicant to obtain a CUP and begin drilling of the test wells as required within three year primary term of the Lease Agreement) as an opportunity to comply with this CEQA requirement, the City issued a Lease Amendment extending the primary term of the Lease Agreement, without first conducting the required CEQA review for the whole of the action. Issuance of the Lease Amendment was a discretionary action for a project which had yet to receive completed CEQA analysis, and which clearly had the potential to result in significant impacts on the environment, as demonstrated by the findings of the Original DEIR and the Revised DEIR. The City thus violated CEQA by failing to conduct CEQA review of the Lease Amendment. The City thus failed in its second opportunity to conduct analysis of the whole of the action. After failing to prepare and EIR for the Lease Amendment, the City has now issued a Revised DEIR for a new or revised CUP application. And, the City's Revised DEIR fails for a third time to analyze the whole of the actions allowed under the Lease Agreement and Amendment.

The Revised DEIR and the City's CEQA process are thus both fatally flawed and very disrespectful of the public's and reviewing agencies' time and resources.

Not only do the Revised DEIR and City process fail to comply with the letter of CEQA, but the environmental process that the City has conducted also fails to comply with the spirit of CEQA, as noted by the County of Los Angeles Regional Parks and Open Space District in its December 6, 2010 comment letter on the Original DEIR, incorporated herein by reference. In its comment letter, the County of Los Angeles urged the:

> City of Whittier and the applicant to engage in a meaningful project planning effort. Specifically, the City of Whittier and the applicant should convene a working group with representatives of the U.S. Army Corps of Engineers (USACOE); the U.S. Fish and Wildlife Service (USFWS); the California Department of Fish and Game (CDFG); the Department of Oil, Gas and Geothermal Resources (DOGGR); and the District to identify development scenarios while minimizing environmental impacts.

Not only has this not occurred, there is no evidence in the Revised DEIR that the City or EIR consultants have consulted with any of these parties. In fact, Chapter 10 of the Revised DEIR – Agencies and Individuals Consulted During EIR Preparation, provides evidence that no such consultation has occurred. This is particularly troubling since the project site is located within a Habitat Preserve with its own Preservation Authority, within a Wildlife Corridor with its own Conservation Authority, and within Federally designated Critical Habitat for the California gnatcatcher, and since both the Original and Revised DEIRs acknowledge the potential for "take" of this threatened species.

The process is also troubling because of the representations made to the public by the City. The City of Whittier announced on April 6, 2011 that: (1) Matrix Oil had filed a new CUP application for a revised project which was consistent with the "environmentally sensitive alternative" (sic) from the Original DEIR; and (2) that the Revised DEIR would include responses to the comments received on the Original DEIR. Neither has proved true. In the Daily News article reporting this announcement (see **EXHIBIT A**), the City Manager, Mr. Helvey predicted that the EIR would be released on June 3 and that it would "include responses to the more than 1,500 comments that were to be included in the report on the first application from Matrix." The Revised DEIR does not include the comments received from the public and responsible agencies on the Original DEIR, nor does it contain responses to those comments.

The project analyzed in the Revised DEIR is in fact significantly different than the Consolidated Site Alternative (misidentified as the environmentally superior alternative) in the Original DEIR. Specifically:

> According to page 5-6 of the Original DEIR, the Consolidated Site Alternative would result in a disturbed area "equal to approximately 3 acres."
>
> In contrast, the proposed project contained in the Revised DEIR includes 6.9 acres of well pads, flare, gas plant, truck loading and processing facilities within the fenced area, 5.3 disturbed and terraced areas outside the fence area per Appendix A of the Revised DEIR, as well as disturbed area for parking, roadways and fuel modification for a total of 30.6 disturbed acres per page 2-13 of the Revised DEIR.
>
> The Consolidated Site Alternative is described on page 5-6 of the Original DEIR as having a similar amount of cut and fill as the then proposed project: i.e. 53,670 cubic yards (cy) of cut, 30,500 cy of fill, and 22,170 cy of exported soil, exclusive of roadway construction, per Table 2-6 of the Original DEIR.
>
> In contrast, the proposed project contained in the Revised DEIR includes 180,000 cy of cut, 31,000 cy of fill and 149,000 cy of exported soil per Appendix A of the Revised DEIR, exclusive of roadway construction.

The City has thus violated the public's trust in its inaccurate statements to the public regarding the preparation of the Revised DEIR and the nature of proposed project. It has also violated the public's trust by failing to provide an accurate and complete analysis of this new CUP application and new first phase project.

This is exactly what we feared. Our December 6, 2010 comment letter on the Original DEIR, incorporated herein by reference, detailed in Section 2.2 the fact that the Original DEIR analyzed a proposed project that did not meet the terms of the Lease Agreement, and that the City appeared to be engaged in an example of bate-and-switch. As detailed in Section 6 and seq. of our December 6, 2010 comment letter, the Original DEIR bated the public and reviewing agencies with an infeasible proposed project and wasted their time and energy reviewing hundreds of pages of analysis of a proposed phase 1 project, which the City could not approve, given the terms of the Lease Agreement. The Original DEIR then provided only the most limited and conclusionary analysis of the Consolidated Central Site Alternative with Landfill Road Access, which history has now confirmed was the defacto project, in an attempt to make the public grateful for a phase 1 "alternative" project with 6-8 identified Unavoidable Significant Adverse Impacts, because this was less than the 13-15 Significant Unavoidable Impacts of the infeasible straw-dog proposed phase 1 project.

However, as detailed in our comment letter on the original DEIR, the analysis of the Consolidated Site Alternative was fatally flawed because there was no actual analysis contained in the Original DEIR specifically of the Consolidated Central Site with the Landfill Road Access and Integrated Truck Loading Facility and the Lambert Railroad Right-of-Way Pipeline Alternative configuration. The DEIR broke the alternative into component pieces for purposes of analysis. In addition, there were no plans or any detailed description of this alternative on which to base any real analysis or conclusions regarding the relative merits of the alternative.

The net result was an Original DEIR which contained both a wholly inadequate analysis of the defacto project (the Consolidated Central Site Alternative) and an EIR which failed to analyze a "range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effect of the project" as required by CEQA Guidelines Section 15126.6. The original DEIR was thus fatally flawed.

We noted in our comment letter on the original DEIR that this was particularly troubling given that the proposed project analyzed in the original DEIR appeared to violate the terms of the Lease Agreement, the Consolidated Site Alternative (incorrectly labeled the environmentally superior alternative) had been endorsed by Matrix Oil, and had gained traction as the preferred alternative and a replacement for the proposed project analyzed in the DEIR. Our comment letter on the Original DEIR stated that we hoped that the City would not seriously consider approving something for which there were no plans on which to base an independently verifiable analysis. While we are pleased that the City has seen the need for additional analysis, we are troubled by the City's apparent desire to reach the same impact conclusions contained in the fatally flawed Original DEIR, and to perpetuate the myth that the project analyzed in the Revised DEIR is the "environmentally superior alternative" from the Original DEIR.

As a result, this Revised DEIR appears to be an attempt at post-hoc rationalization of the impact conclusions reached in the original DEIR for the Consolidate Site Alternative, rather than a true analysis of the revised CUP application. This has caused the new DEIR to reach some absurd conclusions, both because of an effort to reach the same conclusions as the fatally flawed analysis contained in the original DEIR regarding the Consolidated Site Alternative, and because the new first phase "project" is actually significantly larger and results in greater disturbed area, landform modification and soil export than the Consolidated Site Alternative described in the original DEIR.

The Revised DEIR's failure to identify, for example, the following significant unmitigated impacts for the first phase project, is both totally contrary to common sense and to any reasoned analysis. Clearly the proposed first phase project will result in the following significant unmitigated impacts, which are not identified in the Revised DEIR:

> Biological resource impacts to federally designated critical habitat for the California Gnatcatcher due to the disturbance of at least 30 acres of critical habitat and the introduction of on-going industrial activity within the Preserve.
>
> Biological resource impacts to the federally threatened California gnatcatcher due to the location of the project facilities in an area where gnatcatchers have been observed and the use and expansion of a fire road located in close proximity to a known nesting area for this threatened species.
>
> Biological resource impacts associated with impacts to an important regional wildlife movement corridor.
>
> Biological resource impacts associated with the introduction of industrial activity in the restricted portion of a Habitat Preserve set-aside for nursery purposes.
>
> Land Use Policy impacts due to the project's inconsistency with Proposition A.
>
> Land Use Policy impacts due to the project's inconsistency with the City of Whittier's General Plan.
>
> Land Use Policy impacts due to the project's location within designated Core Habitat of a Habitat Preserve and the associated inconsistency with the Resource Management Plan (RMP) for the Habitat Preserve.
>
> Land Use Policy impacts due to the project's location within a County Environmentally Sensitive Habitat Area (ESHA).

These are only several of the significant unmitigated impacts, which the Revised DEIR fails to identify. We would note that not even Matrix Oil believes that the project is consistent with the RMP for the Habitat Preserve. Matrix's attorneys at Kelly Lytton & Wiliams, LLP state in their April 28, 2011 NOP comment letter contained in Appendix I of the Revised DEIR:

> The land use section (EIR, page 4.11-23) defers the determination of consistency with the RMP to a future consistency analysis by decision-makers. That consistency analysis will almost certainly demonstrate that the project is inconsistent with several goals. Because the provision of funding to the Preserve does not offset inconsistency with the RMP goals, it may be necessary to modify the land use and executive summary sections to acknowledge impacts associated with inconsistency with the adopted RMP as potentially significant. To avoid this, we recommend proposing an amendment to the plan to allow limited oil extraction in exchange for ongoing funding as a mitigation measure or as a feature of the project. However, if amending the RMP is outside the control of the City, it may be necessary to conclude that the impacts are significant and unavoidable even if an amendment is proposed.

As detailed in the analysis which follows, like its predecessor, this Revised DEIR not only violates a number of key CEQA precepts, such as the prohibitions against piecemealing, post hoc rationalization, and deferred mitigation, it also fails to identify a number of Significant Unmitigated Impacts, underestimates project impacts due to both a failure to analyze the whole of the action and an inadequate and incomplete project description, and fails to address a number of the potential impact areas contained in the CEQA checklist. The document is so fundamentally and completely inadequate that if the City seeks to continue with the processing of this application, in my opinion, the Revised DEIR must be completely rewritten and recirculated.

Because the document is so fundamentally flawed, the comments contained in this letter should be viewed as illustrative of the problems with the document, rather than as a comprehensive catalogue of the document's defects. A number of the conclusions contained in the Revised DEIR are not supported by facts, reasonable assumptions predicated on facts, or expert opinion supported by facts. In addition, a number of the conclusions defy common sense. Because the document suffers from a number of fatal flaws, only limited comments on the wording of mitigation measures, and more technical issues, are provided as part of these comments. These types of comments are best left to a review of the next generation, if any, of a DEIR that analyzes the whole of the action. In addition, because the Revised DEIR fails to summarize the changes made to the Original DEIR or to provide a summary of the comments on the Original DEIR that have been addressed in the Revised DEIR, the time provided for review of the Revised DEIR has proved inadequate. The City's process and the Revised DEIR's failure to address a number of the valid comments received on the Original DEIR, has made the review of the Revised DEIR more arduous than the review of a typical DEIR. Not only have we had to read the Revised DEIR, but also we have had to crosscheck our review with our prior comments on the Original DEIR and the comments from responsible on the Original DEIR. The 45-day

review period has proved insufficient for this dual task. Our comments are thus incomplete, but sufficient to demonstrate the need for the entire document to be redone.

Due to the length of our comments, a detailed Table of Contents is provided as part of this letter. Comments are organized as follows:

1.0 Fatally Flawed Process
2.0 Fatally Flawed Project and Project Description
3.0 Failure To Describe Or Analyze The Whole Of The Action
4.0 Inadequate Cumulative Projects List
5.0 Inadequate Impact Analysis
6.0 Fatally Flawed Alternatives Analysis
7.0 Other Fatal Flaws
8.0 Reasons for Rejection

Sincerely,

Susan O'Carroll, Ph.D
Principal, Pareto Planning and Environmental Services

Table of Contents

1 FATALLY FLAWED PROCESS 17

1.1 FAILURE TO PREPARE AND ANALYZE A PLAN FOR OIL DRILLING WITHIN THE HABITAT PRESERVE 18

1.2 THE CITY FAILED TO CONDUCT AN ANALYSIS TO DETERMINE WHETHER, WHERE AND HOW MUCH OIL AND GAS EXTRACTION SHOULD BE ALLOWED ON CITY PROP A LAND WITHIN THE PRESERVE PRIOR TO ISSUING A LEASE WHICH ENCOURAGES PUMPING MAXIMIZATION 20

1.3 FAILURE TO CONDUCT A COMPETITIVE BID PROCESS 22

1.4 FAILURE TO CONDUCT CEQA ANALYSIS PRIOR TO LEASE AGREEMENT APPROVAL 23

1.4.1 RESULT IS POST HOC RATIONALIZATION 23

1.4.2 RESULT IS A PIECEMEALED PERMITTING PROCESS AND PROJECT 24

1.4.3 RESULT IS A LEASE AGREEMENT WHICH VIOLATES THE CITY CHARTER 24

1.4.4 RESULT IS CONTRACT WHICH ENCOURAGES PUMPING MAXIMIZATION 26

1.5 FAILURE TO OBTAIN A CUP OR CONDUCT CEQA REVIEW PRIOR TO GEOLOGICAL TESTING WITHIN THE HABITAT PRESERVE 26

1.5.1 HEATHCOTE GEOTECHNICAL CONDUCTED MULTIPLE GEOTECHNICAL TESTING, INCLUDING TESTING DURING THE NESTING SEASON WITHIN THE HABITAT PRESERVE IN VIOLATION OF CEQA 27

1.5.2 THE HABITAT AUTHORITY MAY HAVE PROVIDED USFWS WITH INACCURATE INFORMATION REGARDING GEOLOGICAL TESTING AND POTENTIAL VIOLATION OF THE MIGRATORY BIRD TREATY ACT AND ENDANGERED SPECIES ACT 29

1.6 FATALLY FLAWED ORIGINAL DEIR 30

1.6.1 THE PROPOSED PROJECT IN THE ORIGINAL DEIR WAS INFEASIBLE BECAUSE IT VIOLATED THE TERMS OF THE LEASE AGREEMENT 30

1.6.1.1 NUMBER OF SITES INCLUDED IN THE ORIGINAL DEIR PROJECT VIOLATED THE LEASE PROVISIONS 31

1.6.1.2 THE PROPOSED PROJECT ANALYZED IN THE ORIGINAL DEIR VIOLATED THE LEASE PROVISIONS FOR SITE ACREAGE 32

1.6.2 THE NUMEROUS DEFICIENCIES IN THE ORIGINAL DEIR ARE DETAILED IN COMMENTS LETTERS ON THE ORIGINAL DEIR 35

1.6.3 THE ORIGINAL DEIR WAS FATALLY FLAWED BECAUSE IT INCLUDED AN INADEQUATE ALTERNATIVES ANALYSIS 36

1.6.3.1 THE DESCRIPTIONS OF THE ALTERNATIVES IN THE ORIGINAL DEIR ARE CONFUSING AND INCOMPLETE OR ABSENT 37

1.6.3.2 THE CONSOLIDATED UPPER COLIMA ROAD WITH ACCESS THROUGH ARROYO SAN MIGUEL TRAIL AND THE TRUCK LOADING FACILITY DIRECTLY OFF COLIMA ROAD ANALYZED IN SECTION 6.1.2 OF THE ORIGINAL DEIR WAS AN INFEASIBLE ALTERNATIVE 38

1.6.3.3 THE INADEQUACY OF THE ANALYSIS OF THE REMAINING ALTERNATIVES IN THE ORIGINAL DEIR 39

1.6.4 THE ORIGINAL DEIR CONTAINED A MEANINGLESS ANALYSIS OF THE CONSOLIDATED CENTRAL SITE WITH LANDFILL ACCESS AND INTEGRATED TRUCK FACILITY AND LAMBERT RAILROAD PIPELINE ROUTING ALTERNATIVE 40

1.6.5 THE ORIGINAL DEIR CONTAINED AN INADEQUATE ANALYSIS OF THE NO PROJECT ALTERNATIVE 42

1.6.6 THE ORIGINAL DEIR CONTAINED AN DEFECTIVE ANALYSIS OF THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE 43

1.6.7 RESULT WAS THE INCORRECT IDENTIFICATION OF THE CONSOLIDATED SITE ALTERNATIVE AS THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE 44

1.7 THE ORIGINAL DEIR WAS STAGE ONE OF A PROJECT BATE-AND-SWITCH 44

1.7.1 MATRIX ANNOUNCED SUPPORT FOR THE CONSOLIDATED SITE ALTERNATIVE PRIOR TO THE CLOSE OF THE PUBLIC COMMENT PERIOD 45

1.7.2 THE CITY'S LOBBYIST DESCRIBED THE CONSOLIDATED SITE ALTERNATIVE AS THE PROJECT 45

1.7.3 THE SOCIOECONOMIC ANALYSIS IN APPENDIX H OF THE ORIGINAL DEIR APPEARS BASED ON THE CONSOLIDATED SITE ALTERNATIVE 45

1.8 ENLARGEMENT OF THE CONSOLIDATED SITE ALTERNATIVE IS STAGE TWO OF AN APPARENT PROJECT BATE-AND-SWITCH 47

1.8.1 MATRIX RELEASES YOUTUBE PROMO VIDEO SHOWING THE REVISED PROJECT TWO DAYS AFTER THE CLOSE OF THE PUBLIC COMMENT PERIOD ON THE ORIGINAL DEIR 47

1.8.2 THE GEOTECHNICAL REPORT FOR THE REVISED DEIR CONTAINS AN ANALYSIS OF A LARGER CONSOLIDATED SITE ALTERNATIVE DATED AUGUST 5, 2010 47

1.8.3 CITY ANNOUNCES IT WILL NOT RECIRCULATE THE ORIGINAL DEIR 49

1.8.4 HOWEVER, THE RESULT OF THE FATALLY FLAWED ORIGINAL DEIR WAS 1,254 COMMENTS ON THE ORIGINAL DEIR, THE NEED FOR RECIRCULATION AND THE RISK OF INADEQUATE TIME TO COMPLETE

THE PROCESS IN ACCORDANCE WITH THE TERMS OF THE LEASE AGREEMENT 49

1.8.5 CITY ANNOUNCES THAT MATRIX OIL HAS FILED A NEW CUP APPLICATION AND THE PREPARATION OF A NEW EIR 49

1.9 FAILURE TO CONDUCT CEQA ANALYSIS PRIOR TO APPROVAL OF THE LEASE AMENDMENT 49

1.10 THE PROJECT DESCRIBED IN MATRIX'S APRIL 5 2011 AMENDED CUP APPLICATION AND THE NOP IS NOT THE SAME AS THE "ENVIRONMENTALLY SUPERIOR ALTERNATIVE" IN THE ORIGINAL DEIR 52

1.11 THE PROJECT ANALYZED IN THE REVISED DEIR IS NOT THE SAME AS THE PROJECT DESCRIBED IN THE NOP 54

1.12 STAGE THREE OF THE APPARENT PROJECT BATE AND SWITCH: SAME CONCLUSIONS – DIFFERENT PROJECT 58

1.12.1 THE REVISED DEIR WHICH REACHES THE SAME CONCLUSIONS AS THE ORIGINAL DEIR REGARDING THE SIGNIFICANT UNMITIGATIBLE IMPACTS OF THE PROJECT APPARENTLY IN AN EFFORT TO BE CONSISTENT WITH THE CONCLUSIONS IN THE ORIGINAL DEIR REGARDING THE CONSOLIDATED SITE ALTERNATIVE 58

1.12.2 THESE CONCLUSIONS ARE ABSURD 58

1.13 LEGALLY INADEQUATE NOTICING OF THE RECIRCULATED REVISED DEIR 61

2 THE REVISED DEIR CONTAINS A FATALLY FLAWED PROJECT AND PROJECT DESCRIPTION 62

2.1 THE DEIR IS FATALLY FLAWED BECAUSE IT IS FOCUSED ON THE ANALYSIS OF AN INFEASIBLE PROJECT 63

2.1.1 VIOLATION OF LEASE TERMS RESULTS IN UNDERESTIMATE OF IMPACTS AND AN INFEASIBLE PROJECT 63

2.1.2 PROPOSED PROJECT AND THE ALTERNATIVES VIOLATE PROPOSITION A, AND PROPOSITION A MAKES BOTH THE PROJECT AND THE ALTERNATIVES INCONSISTENT WITH THE CITY'S OBJECTIVES 64

2.1.3 THE CITY'S PUBLIC WORKS DIRECTOR HAS EXPRESSED CONCERN OVER THE FEASIBILITY OF THE LANDFILL ACCESS ROAD AND IT'S IDENTIFICATION AS THE ENVIRONMENTALLY PREFERRED ACCESS ROAD 66

2.2 THE APPLICANT SUBMITTED AN INCOMPLETE CUP APPLICATION – THE PROJECT DESCRIPTION IN THE REVISED DEIR IS SIMILARLY INCOMPLETE 68

2.3 FAILURE TO ADEQUATELY DESCRIBE PROJECT FEATURES OR PHASES – FEATURES NOT SHOWN ON PROJECT PLANS OR ADEQUATELY DESCRIBED 69

2.3.1 PROJECT SITE 69

2.3.2 KEY PROJECT FEATURES ARE HIDDEN IN MITIGATION MEASURES AND THUS NOT ADEQUATELY ANALYZED IN THE REVISED DEIR 69

2.3.3 ADDITIONAL GEOLOGICAL TESTING ... 73
2.3.4 PROJECT WELLS ... 73
2.3.5 DETENTION BASINS ... 73
2.3.6 MUD PITS AND WASTEWATER STORAGE ... 73
2.3.7 ROADWAY DESIGN ... 74
2.3.8 LIMITS OF GRADING ... 74
2.3.9 FUEL MODIFICATION ... 76
2.3.10 EQUIPMENT STORAGE AND PARKING ... 76
2.3.11 STREAMBED ALTERATION ... 76
2.3.12 WELL ABANDONMENT AND RESTORATION ... 77
2.3.13 TRANSMISSION PIPELINE ... 77
2.3.14 ODOR MINIMIZATION PLAN AND AIR MONITORING PLAN ... 77
2.3.15 RANGER RESIDENCE ... 77
2.3.16 NOISE REDUCTION PLAN AND NOISE REDUCTION MEASURES ... 77
2.3.17 POTENTIAL EARLY LANDFILL CLOSURE ... 77
2.3.18 HABITAT CONSERVATION PLAN ... 78
2.3.19 INCONSISTENCY INFORMATION REGARDING THE NUMBER OF ACRES IMPACTED BY THE PROPOSED PROJECT ... 78
2.4 PAGE-BY-PAGE COMMENTS ON CHAPTER 2 – PROJECT DESCRIPTION ... 78
3 THE DEIR FAILS TO DESCRIBE OR ANALYZE THE WHOLE OF THE ACTION ... 88
3.1 FUTURE CONDITIONAL USE PERMITS (CUPS) ... 90
3.2 FAILS TO IDENTIFY THE AMOUNT OR NATURE OF PROP A COMPENSATION ... 91
3.3 FAILS TO IDENTIFY THE LOCATION OR FEASIBILITY OF COMPENSATION ACREAGE ... 91
3.4 FAILS TO ADDRESS ACTIONS SUBJECT TO THE NATIONAL ENVIRONMENTAL POLICY ACT ... 92
4 INADEQUATE CUMULATIVE PROJECTS LIST ... 92
5 INADEQUATE IMPACTS ANALYSIS ... 93
5.1 RESULT OF PIECEMEALING IS AN UNDERESTIMATE OF PROJECT IMPACTS ... 94
5.2 FAILURE TO IDENTIFY AND/OR UNDERESTIMATE OF SIGNIFICANT PROJECT IMPACTS ... 94
5.2.1 AIR QUALITY ... 94
5.2.2 BIOLOGICAL RESOURCES ... 101
5.2.3 SAFETY, RISK OF UPSET AND HAZARDOUS MATERIALS ... 132
5.2.4 GEOLOGICAL RESOURCES ... 132

5.2.5 NOISE AND VIBRATION 141
5.2.6 AESTHETICS AND VISUAL RESOURCES 144
5.2.7 TRANSPORTATION AND CIRCULATION 149
5.2.8 HYDROLOGY AND WATER RESOURCES 150
5.2.9 WASTEWATER 153
5.2.10 LAND USE AND POLICY CONSISTENCY 153
5.2.11 FIRE PROTECTION AND EMERGENCY SERVICES 159
5.2.12 PUBLIC SERVICES AND UTILITIES – SOLID WASTE 161
5.2.13 RECREATION 163
5.2.14 ENVIRONMENTAL JUSTICE 164
5.3 SIGNIFICANT UNAVOIDABLE PROJECT IMPACTS 164
5.4 DEFERRED ANALYSIS AND MITIGATION 164
6 FATALLY FLAWED ALTERNATIVES ANALYSIS 165
6.1 FAILURE TO CONSIDER LESS HARMFUL ALTERNATIVES AND REASONABLE ALTERNATIVES SUGGESTED IN PUBLIC COMMENTS ON THE ORIGINAL DEIR AND NOP FOR THE REVISED DEIR 165
6.2 THE REVISED DEIR INAPPROPRIATELY BREAKS ALTERNATIVES INTO PIECES FOR PURPOSES OF ANALYSIS 166
6.3 EIR PREPARERS INAPPROPRIATELY SCREENOUT ALTERNATIVES 166
6.3.1 INAPPROPRIATE SCREENING CRITERIA AND USURPATION OF THE ROLE OF THE DECISION-MAKERS 166
6.3.2 NORTH SITE 167
6.3.3 UPPER CANADA CANYON CONSOLIDATED SITE 168
6.3.4 CONSOLIDATED UPPER COLIMA ROAD SITE 168
6.4 THE ANALYSIS IS BASED LARGELEY ON UNSUPPORTED STATEMENTS AND ALTERNATIVE DESCRIPTIONS LACK APPROPRIATE DETAIL FOR EVALUATION 169
6.5 ONLY ONE ALTERNATIVE IS ANALYZED IN THE REVISED DEIR 170
6.5.1 PROPOSED PROJECT ALSO INCLUDES THE LOOP ROAD AND THUS WOULD ALSO HAVE THE ADDITIONAL TWO LOOP ROAD IMPACTS 170
6.6 THE REVISED DEIR PROVIDES NO INFORMATION WHATSOEVER REGARDING LANDFILL REGULATIONS WHICH ACT AS CONSTRAINTS ON FEASIBILITY 171
6.7 INAPPROPRIATE IDENTIFICATION OF THE PROPOSED PROJECT AS THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE 171
7 OTHER FATAL FLAWS 171
7.1 FAILURE TO ANALYZE THE POTENTIAL IMPACT OF MITIGATION MEASURES 171
7.2 FAILURE TO IDENTIFY SIGNIFICANT IRREVERSIBLE CHANGES 171

7.3 INACCURATE GROWTH INDUCING IMPACTS ANALYSIS 172
8 REASONS FOR DENIAL 172
8.1 REASONS TO REJECT THE EIR 172
8.1.1 RECIRCULATION REQUIRED 172
8.1.2 THE DEIR IS SO FUNDAMENTALLY FLAWED THAT EVEN RECIRCULATION WILL NOT CURE THE DEFECTS IN THE PLANNING AND EIR PROCESS 173
8.2 REASONS TO REJECT THE PROJECT 173

Exhibits

A April 6, 2011 Whittier Daily News Article: "Whittier Oil Process Delayed; Matrix Oil Co. Files New Application to Drill."

B June 5, 2001 Press Release (http://www.matrixoilcom/contents/matrix-acquires-whittier-fied)

C http://whittieroil.com/frequently-asked-questions

D http://www.matrixoil.com/partners

E March 12, 2008, Whittier Daily News, Briefing on the "City's Negotiations to Consider the Extraction of Minerals From City Property" (http://www.whittierdailynews.com/ci_8546758

F August 26, 2008 City Council Minutes And Agenda - Resolution Of Intention To Lease Property For Production Of Oil

G Lease Agreement

H October 28, 2010 City Council Minutes And Agenda For Award Of The Bid

I Email from Andrea Gullo, Executive Director of the Habitat Authority to Jonathan Snyder of the USFWS, January 13, 2010, and attached mitigation measures

March 2, 2009 emails between Matrix and the City regarding geological testing in the Preserve

J Matrix fuel statements, etc.: http://whittieroil.com/environment-technology

K "Matrix Oil Corporation Announces Support of Consolidated Central Site in Whittier", November 3, 2010, NASDAQ CMX GlobeNewswire

L February 24, 2011 Whittier Daily News Article: "Whittier Officials Say Environmental Report On Oil Drilling Won't Be Recirculated"

M April 13, 2011 Whittier Daily News Article: "Whittier City Council Gives Matrix Oil Three More Years To Obtain Permit For Oil Drilling"

Whittier City Council Agenda Report, April 12, 2011 recommending the approval of an amendment to Matrix's mineral leasehold.

Amendment To The Wittier Main 2008 Mineral Extraction Oil, Gas and Mineral Lease, dated April 12, 2011.

N Copy of Notice of Availability Sent to OSLDF

O City Manager and Public Works Director Emails Regarding Penn Street Issues

P City of Whittier's Requirements for a CUP Application Submittal.

Q Information on the Savage Canyon Landfill

R URBEMIS Model Output for Pad Grading With Soil Export – lbs/day and tons/year

OPEN SPACE LEGAL DEFENSE FUND COMMENTS ON THE REVISED DEIR

1 FATALLY FLAWED PROCESS

As we previously commented in our letter on the Original DEIR: Despite Matrix's existing operations and plans for expanded pumping within the Puente Hills Landfill native Habitat Preserve (Habitat Preserve), neither the Habitat Authority nor the City has conducted an analysis of the advisability of conducting drilling and reintroducing oil production within the Habitat Preserve. Neither the Habitat Authority nor the City has conducted an analysis of the appropriate level or acceptable locations for oil production.

CEQA Guidelines Section 15004 requires that environmental review be conducted as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment. It is clear from the history of this project that both the City and the Habitat Authority have failed in their duty to comply with CEQA and that the appropriate environmental review necessary to determine whether, where, and how much drilling should be allowed within the Habitat Preserve has not been conducted. The Revised DEIR should have included such an analysis, but does not, despite our comments and similar comments from responsible agencies.

As we previously commented in our letter on the Original DEIR: Matrix Oil has been operating in the Whittier area since 2001. According to a June 5, 2001 press release (http://www.matrixoilcom/contents/matrix-acquires-whittier-fied) (see **EXHIBIT B**) Matrix Oil acquired all of Venoco's interests in the Whittier Oil Field in approximately October of 2001. According to the press release, the field was producing 240 barrels of oil per day from 21 wells along with 180 mcf of gas per day when Matrix acquired its interest. In 2001 Matrix's estimated net acquisition was 400,000 barrels of oil because of a 50-50% joint operating agreement it entered into with California-based Bonanza Creek Energy that enhanced production and optimized operations. In the press release Matrix indicated that it had identified approximately 1 Million barrels of undeveloped oil reserves located in oil zones behind pipes in current producing wells or located in untapped zones between current producing wells. The total estimated field reserves to all interests were approximately 2 Million barrels of oil and natural gas equivalent, located in current wells as producing reserves, and in untapped zones as undeveloped reserves. The then current oil price was 21 dollars WTI.

According to http://whittieroil.com/frequently-asked-questions (see **EXHIBIT C**), Matrix indicates that it currently has 25 active wells in the area. The wells produce approximately 350 barrels of oil per day along with natural gas. Since 2001, Matrix has produced approximately 800,000 barrels of oil from its operations. The website indicates that Matrix currently operates two sites in the area. The two sites are located in the western portion of the Whittier Field and are named Honolulu Terrace and Rideout Heights Sycamore Canyon.

The Honolulu Terrace Site is located within the City of Whittier limits and the Rideout Heights Sycamore Canyon Site is located adjacent to the City within the Puente Hills Native

Habitat Preserve. The website indicates that Matrix currently operates nine active wells at the Sycamore Canyon facility, which includes five new wells drilled since 2007.

OSLDF2-4

The Revised DEIR still needs to provide information on all of Matrix's operations within the Whittier Oil field, the number of sites, the number of operating wells at each site, the number drilled at each site since 2001, the pumping rates, and the permitting agencies. Based on a review of the CEQANET website, we have been unable to identify any environmental review for the wells drilled by Matrix since it acquired its interest in the oil field in 2001. We were also unable to identify any environmental review for the new wells located within the Habitat Preserve. The EIR for this project needs to include information on the Lead Agency and type of environmental document prepared for the drilling which has occurred since 2001 at either of these two locations or any other locations within the oil field, along with the State Clearinghouse number for all environmental documents for current operations.

The Project Description in the Revised DEIR needs to be augmented to provide information on existing oil operations within the Whittier Oil Field by Matrix and others. Figure 2-4 which lists the historical production within the Whittier Oil Field currently only provides information through 1999. This figure should be updated to provide information through 2010, with separate lines provided showing Matrix operations within the field. This is important to an understanding of the cumulative context of the proposed project.

Information on Matrix's current operations, any planned expansions and the associated environmental documentation for these operations still needs to be described in the Revised DEIR. It is clear from Matrix's history within the City and Habitat Preserve that the proposed project represents a cumulative expansion of Matrix's operations within the Whittier Oil Field. This still needs to be addressed in the Revised DEIR.

1.1 FAILURE TO PREPARE AND ANALYZE A PLAN FOR OIL DRILLING WITHIN THE HABITAT PRESERVE

As we previously commented in our letter on the Original DEIR: In July of 2007 the Habitat Authority adopted the Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan for the Habitat Preserve (RMP). Oil and gas extraction is not addressed within the 2007 Resource Management Plan for the Preserve. Despite the fact that it appears that oil operations were already occurring in Sycamore Canyon and that Matrix was planning to drill additional wells within the Sycamore Canyon part of the Habitat Preserve, as discussed in Section 1.0 of this letter, the RMP, which was prepared by LSA fails to address oil drilling within the Preserve area.

OSLDF2-5

The Habitat Authority did conduct CEQA analysis of its RMP. It prepared a Mitigated Negative Declaration (SCH # 2007051046). Both the RMP and the Mitigated Negative Declaration (MND) were prepared by LSA. LSA is listed on Matrix's website at http://www.matrixoil.com/partners (see **EXHIBIT D**) as one of Matrix Oil's nine "partners." Reproduced below in full is the MND's discussion of mineral resources.

MND's Discussion Of Mineral Resources:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	❑	❑	❑	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❑	❑	❑	■

Existing Setting:
According to the Los Angeles County General Plan, there is a known local mineral resource area within the Preserve boundaries. No known State-designated mineral resource areas have been identified within the Preserve. The area, however, has a long history of oil extraction and gravel quarry operations. The Whittier Oil Field was in operation up to the sale of the property to the City in 1995. Historic quarry operations in the Sycamore Canyon began in 1912.

Discussion:

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?*

No Impact. No mining is proposed and implementation of the RMP would have no affect on known mineral resources of local or Statewide significance. The RMP would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of California. Gravel operations ceased as a result of the availability of better quality materials from other areas adjacent to the San Gabriel River; and, oil production mostly ceased as a result of the high cost and difficulty of extracting the remaining oil from strata that had been mined since the early 20th Century.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. See Section X(a).

As can be seen from the discussion, the MND for the RMP totally fails to address potential and existing oil extraction within the Habitat Preserve. Similarly, the RMP completely fails to address existing Matrix activities within the Preserve or the potential threat of expanded oil or gas extraction activities, listing only habitat fragmentation, invasive plant species, urban edge effect, public use, erosion and existing fuels and fire hazard conditions as potential threats to the Preserve. This failure to conduct an analysis to determine the appropriate rate and location, if any, for any oil and gas extraction activities within the Preserve needs to be documented in the Revised DEIR.

1.2 THE CITY FAILED TO CONDUCT AN ANALYSIS TO DETERMINE WHETHER, WHERE AND HOW MUCH OIL AND GAS EXTRACTION SHOULD BE ALLOWED ON CITY PROP A LAND WITHIN THE PRESERVE PRIOR TO ISSUING A LEASE WHICH ENCOURAGES PUMPING MAXIMIZATION

As we previously commented in our letter on the Original DEIR: In 2006 Matrix Oil approached the City of Whittier with a proposal for oil drilling. Matrix was informed that the City would be required to go out to competitive bid prior to any lease of City lands.

On March 12, 2008 the Whittier Daily News published a Briefing on the "City's Negotiations to Consider the Extraction of Minerals From City Property" (http://www.whittierdailynews.com/ci_8546758 see **EXHIBIT E**). The briefing states:

> The City of Whittier has been actively researching ways in which our assets can best be utilized for the betterment of our residents. Protecting our water rights, assuring the viability of our landfill, and maximizing our economic base are all a part of this effort.
>
> We are now looking forward to see how we can continue to provide for the protection of our open space, while investigating the potential for the extraction of water, natural gas, and oil from the sub-surface formations under our hills. Recent technologies now permit the mining of these valuable assets without the damage and scarring of our property that was evident by the decades of surface abuse of our beautiful open space by the oil companies who historically operated in the Whittier Hills. This process allows for diagonal extraction of minerals through a slant drilling technology that can be accomplished by using less than half of 1% of our property to effectively mine the mineral rights the citizens of Whittier own below the surface of the hills. Over 1200 acres of minerals can be productively extracted through the use of only a few acres of facilities that can be shielded from sight and installed in a manner compatible with our sensitive Whittier ecosystems.
>
> We have embarked on a series of discussions with Matrix Oil, the predominant exploration company currently extracting minerals in the Whittier Hills. The purpose of our negotiations has been to determine the terms and conditions that would be necessary to allow for the continued surface use of our hills for the recreational enjoyment of our residents and the protection of the abundant wildlife that now make our Whittier Hills their home, with the potential for sub-surface mineral extraction of the water, gas, and oil that lie beneath the surface. OSLDF2-6
>
> We have instructed Matrix Oil to immediately fund a habitat study to be performed by LSA Associates to measure the current levels of animal and plant life in the hills so as to have a firm, verifiable benchmark of the

> health of our local ecosystem. This study will be done under the direct supervision of the Puente Hills Native Habitat Preservation Authority to assure its unbiased results. With these results in hand, it is our desire to develop an operations plan with Matrix that could then be subjected to a full Environmental Analysis by a qualified, independent expert. This expert would be hired by the City, but the costs would be fully paid by Matrix.
>
> If, and only if, it is determined that this co-existence can be appropriately designed to meet our goals of absolute open space protection and preservation, we could then consider the minimum drilling of test facilities to evaluate the potential for the extraction of these sub-surface minerals.

Please provide a list of the documents produced and summarize the results of the analysis. We would note that preparation of an Environmental Impact Report (EIR) would have been the logical way for the City to determine whether "co-existence can be appropriately designed to meet (the City's) goals of absolute open space protection and preservation." However, the City failed to prepare an environmental document prior to its decision to lease land for oil production. Furthermore, the briefing clearly indicates that the City was working with Matrix to develop an operations plan prior to issuance of any request for bid.

In August 26, 2008 the City Council for the City of Whittier approved a Resolution of Intention to Lease Property for production of oil. Despite the fact that the decision to lease property is a discretionary action requiring CEQA review (CEQA Guidelines Section 15002), no CEQA analysis was conducted prior to the decision to go out to bid on the lease of 1,280 acres of Proposition A land and associated mineral rights. The staff report for the action does not recommend the taking of public testimony on the matter, or indicate that any public hearing on the August 26, 2008 resolution was conducted (see **EXHIBIT F**). Rather the staff report recommends the following actions, as reproduced below:

> **RECOMMENDATION**
>
> It is recommended the City Council:
>
> 1. Approve the Oil, Gas And Mineral Lease and other referenced documents for bidding in relation to a proposed Whittier Main 2008 Mineral Extraction Project;
> 2. Adopt the attached Resolution of intention to lease property for production of oil, gas and other hydrocarbons;
> 3. Authorize the City Manager to execute the Lease; and
> 4. Direct staff to publish the Resolution of intention as required by law and described in the Resolution.

In terms of public participation in the decision to issue a lease, the staff report fails to identify any formal public participation in the process of deciding whether or not to issue a lease, rather the staff report envisioned post-hoc public involvement in the review of an EIR for a decision largely taken, stating:

Public Involvement
The public will have multiple opportunities to be informed and to comment while the process unfolds. Already, the City Council has heard a staff report at its meeting on April 22, 2008 and a presentation by Mayor Pro Tem Bob Henderson on June 24, 2008. Information was posted on the City's web site to keep the public informed. Several front page articles appeared in the Whittier Daily News. The CEQA process including the preparation of an EIR will include multiple opportunities for public review and comment, as will the consideration of issuing a CUP. All through this process, there will be several government agencies which will have additional permitting and oversight authority to impose additional project requirements. For example, the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) has multiple regulations related to oil and natural gas exploration and production.

Both a public hearing and a full CEQA analysis should have been conducted prior to the decision to go out to bid on a lease of public lands. There is no indication that the City council studied, reviewed or considered the following important factors, prior to approving the resolution issuing the bid request, or formulating the lease agreement:

the maximum efficient rate for the oil field;
the environmental consequences of reopening the oil field for production;
the appropriate number and location, if any, of wells and drilling activity;
how best to structure the bid and lease terms;
how best to advertise the request for bid, and in what newspapers, so as to maximize the potential number of bid responses so as to maximize revenue from any lease;
the impact of Proposition A on the feasibility of any oil extraction project or City revenue enhancement; or
consultation with the County to determine if release of property purchased with Proposition A funds is feasible, and if so, what terms would be implemented by the County for property release.

The City thus failed to comply with CEQA when making the decision about whether or not to allow oil extraction activities within the Habitat Preserve on lands purchased in trust for the public with Proposition A funds, a decision with a clear potential to result in significant unavoidable environmental impacts. This planning history and the City's failure to comply with CEQA needs to be documented in the Revised DEIR. Since the needed analysis was not conducted prior to issuance of the Lease Agreement it needs to be included in the Revised DEIR. The Revised DEIR needs to determine whether there is an alternative level and location of oil and gas extraction that can be accomplished without any significant unavoidable impacts.

1.3 FAILURE TO CONDUCT A COMPETITIVE BID PROCESS

As we previously commented in our letter on the Original DEIR: After failing to conduct CEQA review, the City then appears to have failed to conduct a completive bid process. The City's decided to advertise its request for bid in only one paper, a paper with a limited localized

circulation, the Whittier Daily News. In 2008 the Whittier Daily News ranked 14th out of the papers in the Los Angeles region, with a weekday circulation of 14,563 and a weekend circulation of 14,745. (See: http://www.cbjonline.com/a2labj/lists/2009-Newspapers.pdf) This decision to advertise only in the local paper resulted in a defacto sole source request to Matrix Oil, an oil company located within the City, which had two years earlier approached the City with an oil and gas extraction project on City-owned land, and which the City had worked with in the development of an operations plan prior to issuance of the bid request (see Section 1.1.2 of this letter). As a result Matrix was the only bidder and was awarded the Lease (see **EXHIBIT G**) at the City's October 28, 2008 City Council Meeting (see **EXHIBIT H**). OSLDF2-7

Thus clear evidence, set forth in the public record indicates that the City's intent was to do business with Matrix and therefore the City was not going to conduct a true competitive bid process in order to maximize potential revenues from the project. This planning history needs to be documented in the Revised DEIR.

1.4 FAILURE TO CONDUCT CEQA ANALYSIS PRIOR TO LEASE AGREEMENT APPROVAL

As we previously commented in our letter on the Original DEIR: not only did the City fail to conduct CEQA analysis prior to the decision to allow for drilling within the Habitat Preserve or prior the decision to issue a bid request which specified key project characteristic, it similarly failed to conduct CEQA analysis prior to the next milestone in the process: Lease Agreement approval. The Lease Agreement (see **Exhibit G**) contains key requirements, which affects the design and location of project features such as:

> The acreage to be leased – "1280 acres more or less."
> The number of sites and total site acreage for the first of the drilling projects allowed under the lease. OSLDF2-8
> The term of the lease, or rather the lack thereof.
> The limitation on the total amount of wells allowed within the project area, or rather the lack thereof.
> The limitation on the total amount of oil and gas extracted per day, per month, per year, or over the life of the project, or rather the lack of any such specification.
> Limitations on the location of extraction activities within the Habitat Preserve, or rather the lack of any such limitations.

As we previously commented in our letter on the Original DEIR: a copy of the Lease Agreement needs to be included in an Appendix to the DEIR.

1.4.1 <u>Result Is Post Hoc Rationalization</u>

As we previously commented in our letter on the Original DEIR: it is a general principle of CEQA that before conducting CEQA review, agencies must not take any action that significantly furthers a project in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project. However, this is exactly

what the City has done in this case. As a practical matter, the City through the Lease Agreement committed itself to the project as a whole and to particular features, so as to effectively preclude alternatives or mitigation measures that CEQA would otherwise require to be considered, including the alternative of not going forward with the project as demonstrated by Councilman Henderson's comments in the April 13, 2011 Whittier Daily News article (see **EXHIBIT M**).

The city thorough the Lease Agreement contracted away its power to consider the full range of alternatives and mitigation measures required by CEQA and precluded consideration of a "no project" option. In entering into the Lease Agreement with the oil companies, the City precluded its ability to reconsider the wisdom of the project in light of environmental effects.

OSLDF2-9

Clearly the City reached a binding, detailed agreement with the oil company in the form of the Lease Agreement, and publicly committed resources and governmental prestige to the project before conducting CEQA review. The City's reservation of CEQA review until a later, CUP approval stage thus fails to comply with a number of key CEQA policies articulated in CEQA Guidelines Section 15003. The planning and environmental process and the two DEIRs clearly fail to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. The process does not serve to convince public observers that before committing itself to the project, the City fully considered the project's environmental consequences. Rather than a document of accountability, the EIR is a document of post hoc rationalization.

Not only was the Original DEIR a clear example of post hoc rationalization, it is a bad example, as it fails to consider the whole of the action post hoc. This defect and our comments on this issue should have been addressed in the Revised DEIR. However, the Revised DEIR similarly fails to consider the whole of the action. The Revised DEIR is, therefore, also an example of piecemealed environmental review.

1.4.2 Result Is A Piecemealed Permitting Process And Project

The net result of this faulty planning effort and violation of CEQA requirements is a piecemealed process and project. The inappropriate piecemealing of the project is discussed in Section 3 of this letter.

OSLDF2-10

1.4.3 Result Is A Lease Agreement Which Violates The City Charter

Article 4 Section 418 of the Whittier City Charter holds as follows:

> "The City Council shall not have the power to make or authorize any contract or lease or extension thereof for a longer period than twenty-five years unless said contract, lease or extension be approved by a majority of those qualified electors of the city voting on such question at any election. A contract, lease or extension for a longer period shall be valid without such approval if it provides for the acquisition by the city at the end of such period of the real or personal property so leased or contracted for.

This section shall not apply to any franchise granted pursuant to the provisions of this charter or to any contract for the furnishing or acquisition of the products, commodity or services of any public utility."

The Lease Agreement states the term of the lease as follows:

1. **Term**. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

The term set forth in the lease indicates that the lease remains in effect for an undetermined length, "so long thereafter as Lessee shall conduct development operations, (including without limitations, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities or the Leased Land." In essence this Lease can remain in full force and effect for a period in excess of 25 years—which is the true intent of the Whittier/Matrix Contract.

Given that the language provided in the Whittier/Matrix Lease that allows the lease to extend beyond 25 years, and the fact that no vote has been taken to extend the lease terms beyond 25 years, OSLDF has filed suit, arguing that Article 4 Section 418 of the Whittier Charter has been violated.

We would note that Section 2.3.6 Revised DEIR, reproduced below, supports OSLDF's concern that the Lease Agreement (primary and subsequent) term is longer than 25 years:

OSLDF2-11

2.3.6 Project Life and Decommissioning

The proposed Project would develop the oil and gas resources until they are depleted and developing them is no longer economically viable or until the price of crude oil decreases to a level where production from the field is no longer economically viable. Currently, the amount of crude oil that could be produced from the field is unknown and future crude prices are difficult to assess. At a minimum, the proposed Project could operate for 25 years, which is the lease term approved by the City of Whittier.

If during the Drilling and Testing Phase, the Applicant does not deem the level of production from the Project Site as economically feasible, then decommissioning of the installed equipment would commence. Decommissioning would remove the drilling and temporary testing equipment and would include abandonment of wells according to DOGGR requirements.

At the end of the Project, estimated to last at least 25 years, a separate permit process and environmental review would evaluate decommissioning the entire site when the owner applies to abandon the facility. Since the timing of the decommissioning is unknown and the Applicant has not submitted a detailed decommissioning plan, any assessment of the decommissioning activities would be speculative at this time.

The clause at the end of the last sentence of the first paragraph of Section 2.3.6 of the Revised DEIR that reads "which is the lease term approved by the City of Whittier" should be

deleted, as this is clearly not the case. If this clause is not removed, then section of the Lease Agreement, which is the basis of the clause, must be cited in the Revised DEIR.

1.4.4 Result Is Contract Which Encourages Pumping Maximization

Given the financial terms of the contract, and the contract terms discussed in Section 3.1 of this letter, which tie the continuation of the contract to continued productions and drilling, the City has entered into a Lease Agreement which encourages both drilling and pumping maximization. In fact one of Matrix's objectives for the project, as stated on page ES-1 of the Original and Revised DEIRs is to "(m)aximize oil and gas production from the field, thereby maximizing royalty payments to the City of Whittier." It also means that over time, Matrix has an incentive to place as many wells as possible within the oil field. OSLDF2-12

1.5 FAILURE TO OBTAIN A CUP OR CONDUCT CEQA REVIEW PRIOR TO GEOLOGICAL TESTING WITHIN THE HABITAT PRESERVE

After failing to conduct CEQA review prior to issuance of the Lease Agreement, the City then apparently allowed the applicant to conduct geological testing within the Habitat Preserve in violation of both the terms of the Lease Agreement and the City's Municipal Code.

Section 6.1 of the Lease Agreement, reproduced below specifies that there shall be no surface entry unless and until a Conditional Use Permit is obtained and CEQA is complied with.

> 6.1. **No Surface Entry Unless and Until Conditional Use Permit Obtained and CEQA Complied With**. Lessee shall not be entitled to make any surface entry on the Leased Land (other than for visual inspection or surveying purposes in support of an application for a Conditional Use Permit) unless and until: (i) a Conditional Use Permit has been applied for at the City of Whittier for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes and, if desired by Lessee, for the conduct of a seismic survey, (ii) environmental review under the California Environmental Quality Act ("CEQA") has been conducted and paid for by Lessee, (iii) a Conditional Use Permit has been issued by the City of Whittier, in its sole and absolute discretion; and accepted in writing by Lessee within a period of ten (10) days of the date of its issuance, and (iv) no Conditional Use Permit will be issued by the City of Whittier until Lessor has obtained a release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. The terms and conditions of any Conditional Use Permit which may be issued by the City of Whittier, including any mitigation measures and monitoring plans which may arise in the cause of any CEQA review thereunder, shall be deemed incorporated into this Lease as terms and conditions thereof. OSLDF2-13

Section 18.52.030 of the City's Municipal Code requires a Conditional Use Permit for exploratory borehole operations. On multiple occasion, the City's Geotechnical Consultant, Heathcote Geotechnical conducted borings and dug test pits within the Habitat Preserve without first obtaining a Conditional Use Permit. A Conditional Use Permit is a discretionary action requiring CEQA review. The City failed to require CEQA review of these activities, which had a clear potential to result in significant impacts to the environment. The fact that geological testing was conducted within the Habitat Preserve without a CUP or consultation with the U.S. Fish and Wildlife Service needs to be disclosed in the Revised DEIR.

1.5.1 Heathcote Geotechnical Conducted Multiple Geotechnical Testing, Including Testing During the Nesting Season Within The Habitat Preserve In Violation of CEQA

The Original DEIR made mention of the existence of a Geotechnical Report for the project, but did not include it as a technical appendices. We commented on the need for the Geotechnical Report to be included as a technical appendix, in our comment letter on the Original DEIR. It is now clear why the Geotechnical Report may have been omitted from the Original DEIR; it provides evidence of geotechnical testing in violation of the Lease Agreement, the Municipal Code and potentially the Endangered Species and Migratory Bird Treaty Acts.

Page L-6 of the new Geotechnical Report for one of the versions of the Consolidated Site Alternative (see Sections 1.10 and 1.11 of this comment letter) dated January 13, 2011 included in Appendix L of the Revised DEIR states as part of the description of the site work, the following tasks:

2. Previously, 18 borings were excavated throughout the open space area in reports dated April 20, 2009 and January 6, 2010. Within the consolidated site, 8 borings from previous work were used. Current work included 2 additional borings. Maximum depth for previous and current borings is 60 feet. Undisturbed samples were taken at frequent intervals using hand auger equipment and hollow stem augers. These borings were used for geology, foundation and slope stability.
3. Previously, 18 test pits were excavated throughout the open space area in a report dated January 6, 2010. Within the consolidated site, 5 test pits from previous work were used. Current work included 11 additional test pits. Samples were taken at frequent intervals using backhoe equipment. Varying depths were excavated for the test pits. These test pits were used for geology, foundations and slope stability.
4. Logging of soils in the borings and samples for geologic and engineering properties.
5. Obtained a bulk samples for laboratory testing.

Logs of the borings and pits used in the analysis contained in the January 13, 2011 Geotechnical Report are included at the end of the report. The following table provides a summary of the information contained in those logs regarding the dates the work was conducted for those tests used in the analysis of the August 5, 2010 version of the Consolidated Site version of the project analyzed in the January 13, 2011 Geotechnical Report.

TABLE 1
SUMMARY OF INFORMATION ON TEST PITS AND BORINGS CONTAINED IN THE JANUARY 13, 2011 GEOTECHNICAL REPORT

TEST PITS

Pit	Date Excavated	Notes
TP-3	10/5/09	Geotechnical study indicates 18 test pits were done for report dated 1/6/2010 (i.e. in approximately October of 2009)
TP-4	10/6/09	
TP-5	10/6/09	
TP-6	10/7/09	
TP-7	10/7/09	
TP-19	9/15/10	Plus 11 additional test pits were dug for the new Geotechnical Report (i.e. in approximately September of 2010)
TP-20	9/15/10	
TP-21	9/15/10	
TP-22	9/15/10	
TP-23	9/18/10	
TP-24	9/16/10	
TP-25	9/16/10	
TP-26	9/16/10	
TP-27	9/18/10	
TP-28	9/18/10	
TP-29	9/18/10	

BORINGS

BORINGS	Date Started	Date Completed	Depth	Notes
B-3	3/24/09		9 1/2 feet	Geotechnical Report indicates that 18 test borings were done for reports dated 4/20/2009 and 1/6/2010. Based on the Boring numbers, it appears that at least 10 borings were done in approximately March of 2009.
B-4	3/24/09	3/24/09	7 feet	
B-5	3/24/09	3/24/09	7 feet	
B-6	3/24/09	3/24/09	10 1/2 feet	
B-9	3/26/09	3/26/09	10 1/2 feet	
B-10	3/26/09	3/26/09	8 feet	
B-16	10/19/09	10/19/09	40 feet	
B-18	10/19/09	10/19/09	60 feet	
B-19	9/28/10		31 feet	
B-20	9/28/10		15 feet	Geotechnical Report indicates that 2 additional borings were done for the current Geotechnical Report (i.e. in approximately late September of 2010)

OSLDF2-14

The nesting season is generally considered to be February 1 to August 31. It is therefore clear that Heathcoat conducted borings in the Core Habitat area of the Habitat Preserve in federally designated Critical Habitat for the California Gnatcatcher, in an area where Gnatcatchers have been previously observed (see Figure 4.2-3 of the Revised DEIR), in an area found by the biological consulting firm of Glenn Lukos Associates, to be most suitable for the Gnatcatcher (see Exhibit 3 in Appendix C of the Revised DEIR). It thus appears that the Geotechnical consultant may have violated both the Migratory Bird Treaty Act and the Endangered Species Act by conducting this testing. This must be addressed in the Revised DEIR.

1.5.2 The Habitat Authority May Have Provided USFWS With Inaccurate Information Regarding Geological Testing and Potential Violation of the Migratory Bird Treaty Act and Endangered Species Act

When we read in the Original DEIR that geotechnical testing had occurred within Critical Habitat for the California gnatcatcher without consultation with the U.S. Fish and Wildlife Service (USFWS), OSLDF's attorney informed the USFWS (which had not received a copy of the Original DEIR for comment) about the testing. The USFWS then contacted the Habitat Authority.

EXHIBIT I contains a copy of an email from Andrea Gullo, Excutive Director of the Habitat Authority to Jonathan Snyder of the USFWS dated January 13, 2010, providing information as part of the USFWS investigation. In that email, Ms. Gullo states that test borings were done twice, once in 2009 and 2010, and that the work was conducted outside of the nesting season. As shown in the Geotechnical Report and the table above, work was actually conducted twice in 2009 and once in 2010. The first testing actually occurred during the nesting season.

Was the USFWS informed of the testing during the nesting season? Was the Habitat Authority informed of the testing during the nesting season? Did the Habitat Authority and or USFWS monitor this testing? Based on City emails obtained through the Freedom of Information Act (FOIA), it appears the Habitat Authority may have been aware of potential testing in March of 2009, and that the City was aware of the problem of testing within the Preserve without a CUP and sought to circumvent Municipal Code and Lease requirements. Please detail when and how testing took place, within the Revised DEIR, and provide an explanation of why/how this was allowed to occur without first conducting environmental review or obtaining a CUP permit. OSLDF2-15

Also as shown in **EXHIBIT I**, the Habitat Authority entered into a Mitigation Agreement with Matrix Oil, to address the potential impacts of Geotechnical investigation in the Preserve. This mitigation agreement is dated September 30, 2009. It provides substantial evidence that the Habitat Authority believed that geologic testing presented the potential for significant environmental impacts. However, neither the City nor the Habitat Authority required CEQA

review of the proposed testing activity, in violation of CEQA, the Lease Agreement and the City's Municipal Code. These violations need to be documented in the Revised DEIR.

According to page 4.3-2 of the Revised DEIR: "In addition, in January 2010, Matrix contracted with PW Environmental to perform a soil sampling assessment of the site. Soil samples were taken at 17 locations at the proposed Project Site to a depth of 10 feet." Did the Habitat Authority monitor this testing? Was it subject to the same mitigation agreement? When was the testing conducted? Was the USFWS informed? The report needs to be included as an appendix to the Revised DEIR.

Was the USFWS provided with a copy of the Revised DEIR as part of the mailing of documents to responsible agencies per Sections 15086 and 15087 of the CEQA Guidelines? When was the Revised DEIR sent to the USFWS?

1.6 FATALLY FLAWED ORIGINAL DEIR

As detailed in our comment letter on the Original DEIR, which is incorporated herein by reference, the City them prepared the fatally flawed Original DEIR. The Original DEIR was fatally flawed because:

It Was The Product of A Fatally Flawed Process
It Included A Fatally Flawed Project Description
It Failed To Describe Or Analyze The Whole Of The Action
It Had An Inadequate Cumulative Projects List OSLDF2-16
It Contained An Inadequate Impact Analysis
It Had An Inadequate Alternatives Analysis
It Contained An Inaccurate Analysis of Growth Inducing Impacts

Perhaps the two most troubling aspects of the Original DEIR were: (1) the fact that the Original DEIR analyzed a proposed project that was infeasible, because it violated the terms of the Lease Agreement, and (2) the wholly inadequate alternatives analysis which resulted in the project bate-and-switch which is the subject of the Revised DEIR.

1.6.1 <u>The Proposed Project In The Original DEIR Was Infeasible Because It Violated The Terms Of The Lease Agreement</u>

As detailed in our comment letter on the Original DEIR: Paragraph 1 of the Lease Agreement between the City of Whittier, Matrix Oil and Clayton Williams Energy, Inc. dated October 28, 2008 (see EXHIBIT G), reproduced below, specifies that the Lessee must submit a complete application for issuance of a Conditional Use Permit as provided for in Paragraph 6.1 of the lease agreement, within one hundred eighty days from the date of the Lease, i.e. by April 26, 2009 and that the application be consistent with Paragraph 6.1 of the Lease agreement:

1. **Term**. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

The applicant submitted a Conditional Use Permit application on April 24, 2009. However the CUP application did not contain all of the elements required by the City for a complete CUP application. In addition, neither the project described in the Conditional Use Permit application nor the Original DEIR are consistent with the requirements of Paragraph 6.1 of the Lease Agreement.

Paragraph 6.1 of the Lease Agreement, reproduced below, specifies that the application be "for up to three drill and well sites, for use for drilling and production support facilities including wastewater reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes":

6.1. **No Surface Entry Unless and Until Conditional Use Permit Obtained and CEQA Complied With**. Lessee shall not be entitled to make any surface entry on the Leased Land (other than for visual inspection or surveying purposes in support of an application for a Conditional Use Permit) unless and until: (i) a Conditional Use Permit has been applied for at the City of Whittier for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes and, if desired by Lessee, for the conduct of a seismic survey, (ii) environmental review under the California Environmental Quality Act ("CEQA") has been conducted and paid for by Lessee, (iii) a Conditional Use Permit has been issued by the City of Whittier, in its sole and absolute discretion; and accepted in writing by Lessee within a period of ten (10) days of the date of its issuance, and (iv) no Conditional Use Permit will be issued by the City of Whittier until Lessor has obtained a release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. The terms and conditions of any Conditional Use Permit which may be issued by the City of Whittier, including any mitigation measures and monitoring plans which may arise in the cause of any CEQA review thereunder, shall be deemed incorporated into this Lease as terms and conditions thereof. OSLDF2-16

Since Matrix has not complied with the requirements of Paragraphs 1 and 6.1 of the Lease Agreement, as detailed in Sections 2.1.1 and 2.1.2 or comment letter on the Original DEIR, and Sections 1.6.1.1 and 1.6.1.2 below, the City arguably had a duty to terminate the Lease Agreement. Instead of complying with this duty, as detailed in Section 1.9 of this comment letter, the City instead decided to authorize a Lease Amendment extending the Primary Term from three to six years, again without conducting CEQA Review of this subsequent discretionary action.

1.6.1.1 Number of Sites Included in the Original DEIR Project Violated the Lease Provisions

The proposed project analyzed in the Original DEIR contained more development sites than allowed under the Lease Agreement. It is clear from an examination of Original DEIR

Figure ES-2, reproduced on the following page, Figure 2-6 of the Original DEIR, and the plans contained in the Original DEIR's Appendix A-Project Description Design Data, that the proposed project analyzed in the Original DEIR included five development sites, not three. Although the East Well Site (Appendix A – Sheet FD-1018 – East Well Pad) and the West Well Site (Appendix A – Sheet FD-1012 – West Well Pad) each consist of one site, the Central Site was in fact three separate sites (Appendix A – Sheets FD-1014 – Processing Pad, FD-1015 – Well Pad, and FD-1020 – Truck Loading). OSLDF2-17

A project with five non-contiguous development sites for well pads and production support facilities (i.e. processing and truck loading), is inconsistent with the terms of the Lease. The Lease does not provide for separate production and truck loading sites.

1.6.1.2 The Proposed Project Analyzed in the Original DEIR Violated the Lease Provisions for Site Acreage

Original DEIR Table 2-3 showed a total of 6.0 acres for pad areas within the fenceline and 10.4 acres of disturbed area, exclusive of the truck loading site, as shown below.

However, if the truck loading site is properly included in the site acreage, the well and production support sites are greater than seven acres in size, as shown in Table 2-3 of the Original DEIR, which provides the following information.

TABLE 2
SITES AREA FROM ORIGINAL DEIR TABLE 2-3

LOCATION	CONSTRUCTION Disturbed Area (acres)	OPERATIONS Facility Area (acres)
East Well Site	2.4	1.1
West Well Site	2.0	1.1
Central Well Site		
Well Site	2.3	1.3
Processing Site	3.7	2.5
Truck Loading Site	1.7	1.1
TOTAL "SITES"	12.1	7.1
Source: Table 2-3 of the DEIR		

The 7.1 acres of operational area and 12.1 acres of disturbed area is thus in violation of the 7 acre size limit within the Lease Agreement. Both the Original Conditional Use Permit application and Table 2-3 of the Original DEIR attempt to disguise the fact that the operational area is greater than 7 acres, by putting the truck loading area under the category of "other areas", rather than including it in the "sites" calculation as shown in Original DEIR Table 2-3 reproduced on the following page.

Figure ES-2 Proposed Project Sites

Source: Matrix Application 2009 and subsequent submittals

FIGURE 1:
ORGINAL DEIR FIGURE ES-2

The notes on Original DEIR Table 2-3 indicate that the operational acreage calculation is based on "pad areas within the fence line that would be developed at each location to support the proposed facilities."

Furthermore, neither the project plans nor the disturbed area calculations included in Original DEIR for the sites appeared to include the area that would be disturbed by fuel modification requirements, and were therefore underestimates of the facilities acreage. As noted on Original DEIR page 4.12-4, the project site was within an area designated as a very high fire severity zone for wildfire. In accordance with Public Resources Code (PRC) Section 4291 the project would be required to maintain defensible space for 100 feet from structures. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. The project plans included in Appendix A of the Original DEIR generally show a 20 foot fuel modification zone, which is inconsistent with State law, the RMP and representations made by Matrix on its website regarding its intent to provide "a buffer of 50 feet or more of cleared brush from fences or perimeter walls" (see **EXHIBIT J**).

TABLE 3
ORIGINAL DEIR TABLE 2-3

Table 2-3 Project Disturbed and Facility Areas OSLDF2-18

Location	Construction Disturbed Area (acres)	Operations Facility Area (acres)
Sites		
East Well Site	2.4	1.1
West Well Site	2.0	1.1
Central Well Site	2.3	1.3
Central Processing Site	3.7	2.5
Total Sites	10.4	6.0
Other Areas		
Truck Loading	1.7	1.1
New Access Road	3.4	1.4
Total Other Areas	5.1	2.5
Temporary Construction Staging and Parking Areas	4.1	-

Notes: All pipelines would be within existing or proposed roadways.
The operations facility acres numbers represent the pad areas within the fence line that would be developed at each location to support the proposed facilities.
The disturbed area is the total area disturbed during construction to construct the operations facility areas and includes the permanent facility area.
Source: Matrix Application Data Request #1 and subsequent submittals

Table 2-3 of the Original DEIR included 4.1 acres of temporary construction staging and parking areas. Given that the project required eight years for construction and drilling, this additional 4.1 acres was hardly temporary, further adding to the disturbed acreage associated with the project, increasing it still further to 16.2 acres, exclusive of new access roads. There is a

big difference between 16.2 acres for well and production facilities and the 7-acre maximum specified in the Lease Agreement.

The "total other area" in Table 2-3 of the Original DEIR was 5.1 acres in size during construction and 2.5 areas in size during operations, bringing the site acreage, exclusive of new access roads and temporary construction staging and parking areas potentially to 9.6 acres for facilities operation and 21.3 disturbed acres.

The project plans included in Appendix A of the Original DEIR showed only the access road connecting the east well site and the truck-loading site. Original DEIR Table 2-3 included only the new access road and lists 1.4 new roadway acres during operation and 3.4 disturbed acres during construction. Given that the roadway is 20 feet wide and 0.5 miles in length, the calculation of 1.4 acres did not appear to include the required fuel modification that would be required along the roadway length, in the calculation of acres disturbed during operation as a result of the roadway. The acreage disturbed during construction also appeared to be understated in the Original DEIR.

In addition, the acreage associated with improvement of Catalina Avenue to serve the proposed project does not appear to have been considered or estimated in Original DEIR Table 2-3, or included in the analysis of project impacts or the analysis of grading, and cut and fill contained in the DEIR.

The project description included in the Original DEIR was incomplete, understated the magnitude of the project, and described a project that was infeasible because it violated the terms of the Lease Agreement.

Please list the total acreage that would have been disturbed under the proposed project included in the Original DEIR. We would noted that even with corrections, it appears the proposed project in the Original DEIR would have resulted in less total acres disturbed, than the proposed project analyzed in the Revised DEIR. Please provide a comparison of the total acres that would be disturbed temporarily and permanently under both proposals.

1.6.2 The Numerous Deficiencies In The Original DEIR Are Detailed In Comments Letters On The Original DEIR

We detailed the numerous defects in the Original DEIR in Open Space Legal Defense Fund's comment letter on the Original DEIR. That letter is incorporated herein by reference.

The City received numerous comments on the inadequacy of the Original DEIR from members of the public and responsible agencies. Those comments are incorporated herein by reference. OSLDF2-19

Pursuant to Section 15088.5 of the CEQA Guidelines, those comments letters are part of the administrative record. Many of those comments are not addressed in the Revised DEIR. We therefore believe it is important for the decision-makers to have access to those letters, and

hereby request that they be included as a volume of the Final EIR and any pertinent comments that also apply to the Revised DEIR be addressed in Response to Comments.

1.6.3 The Original DEIR Was Fatally Flawed Because It included An Inadequate Alternatives Analysis

According to part (a) of CEQA Guidelines Section 15126.6:

> (a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

OSLDF2-20

Pursuant to the CEQA Guidelines, alternatives analyzed in the DEIR should therefore be feasible. First phase alternatives which, like the first phase of the proposed project analyzed in the body of the Original DEIR (see Section 2.1 of this letter), violate the terms of the Lease Agreement regarding number of sites and allowed acreage, are not feasible alternatives. We commented in our letter on the Original DEIR on the need to cull the infeasible proposed project and the infeasible site alternatives from the Original DEIR. We noted that once done, it was clear that the Original DEIR included analysis of only one site configuration: the Consolidated Site Alternative. Therefore, there really was no alternatives analysis in the Original DEIR; rather the Original DEIR contained a very limited analysis (pages 6-27 to 6-41 of the Original DEIR) of a very poorly described Consolidated Site Alternative, which other than the No Project alternative, may have been the only analyzed configuration that met the Lease terms.

The range of alternatives considered in the DEIR thus failed the rule of reason test, and the Original DEIR did not foster informed decision-making and public participation, since the Original DEIR contained only one site configuration that may have met the terms of the Lease Agreement. In addition, it was not clear from the description provided in the DEIR that even the Consolidated Site Alternative met the Lease terms.

Furthermore the descriptions of the alternatives in the Original DEIR were confusing and incomplete. The alternative analysis section of the Original DEIR provided separate analysis of the component parts of the one remaining alternative, the Consolidated Site Alternative, which constituted improper piecemealing the analysis. This resulted in a meaningless analysis of the alternatives. The alternatives analysis and the Original DEIR was thus fatally flawed.

The Revised DEIR unfortunately perpetuates the myth of the Consolidated Site Alternative as the Environmentally Superior Alternative, and perpetuates the inadequate analysis.

1.6.3.1 The Descriptions of the Alternatives In The Original DEIR Are Confusing And Incomplete Or Absent

Sections 5 and 6 of the Original DEIR contain the alternatives analysis. Section 5 begins with a description of the screening analysis used to identify alternatives for analysis. The screening analysis looks at subalternatives to four of the key components of the proposed project:

1. Alternative Drilling and Production Sites (in Section 5.1.2 of the Original DEIR)- Five subalternatives were considered: (1) a Consolidated Central Site; (2) a savage Canyon Landfill Site; (3) an Upper Canada Canyon Consolidated Site; and (5) the Historical Chevron Processing Facility. The Consolidated Central Site and the Consolidated Upper Colima Road site were retained for further consideration and the other three subalternatives were screened out. It is therefore interesting that the one site alternative analyzed in the Revised DEIR (see Revised DEIR page ES-13) is a site alternative that was screened out of the Original DEIR due to infeasiblity resulting from a lack of jurisdictional control (see Original DEIR page 5-9). What has changed?

2. Alternative Access Roads (in Section 5.1.3 of the Original DEIR) – Three subalternatives were considered: (1) a Loop Trail Road; (2) a Landfill Road; and (3) Catalina Avenue access. Both the Loop Trail Road and the Catalina Avenue access were screened out. This is interesting since the proposed project includes Catalina Avenue and Loop Trail Road access as part of the proposed project. Only the Landfill Road subalternative was retained for further analysis in the Original DEIR. OSLDF2-21

3. Alternative Truck Loading Facilities (in Section 5.1.4 of the Original DEIR) – Five subalternatives were considered: (1) a Savage Landfill Truck Loading Facility; (2) A Central Well Site Truck Loading Facility Site South; (3) an Upper Colima Road Truck Loading Facility Site; (4) a Preserve Parking Lot Area Site; and (5) An Integrated Truck Loading Facility. Subalternative 5, the Integrated Truck Loading Facility was the only loading facility alternative retained for further analysis and it was described as constructing the loading area within the processing area for the project, or any of the alternatives.

4 Alternative Pipeline Routes (in Section 5.1.5 of the Original DEIR) – Two subalternatives were considered: (1) Lambert Railroad Right-of-Way and (2) a La Habra Heights Pipeline Alignment. Only the Lambert Railroad Right-of-Way subalternative was retained.

From the retained subalterantive components, the EIR preparers crafted two alternatives, in addition to the No Project Alternative, for analysis (see Section 6.1 of the Original DEIR):

1. The Consolidated Upper Colima Road with access through Arroyo San Miguel Trail and the truck loading facility directly off Colima Road analyzed in Section 6.1.2 of the Original DEIR; and

2. The Central Consolidated Site Alternative with access through the landfill road and the integrated truck loading facility within the Central Processing Site (analyzed in Section 6.1.3 of the Original DEIR).

Unfortunately the EIR preparers did not see fit to actually describe these alternatives (see Section 6.1.2 and 6.1.3 of the Original DEIR). Instead the Original DEIR preparers relied on the reader to piece together a picture of these alternatives from the description of the component parts contained in Section 5.1 of the Original DEIR. This is difficult since it is not clear what all of the component are, for these two alternatives. Moreover, the Consolidated Upper Colima Road alternative contains components, such access through Arroyo San Miguel Trail and a truck loading facility directly off Colima Road, which had either never been described, or in the case of truck loading directly off Colima Road, appear to have been screened-out (see Original DEIR Section 5.1.4.3 and 5.1.4.4).

In addition, the Original DEIR contained a separate analysis of the retained pipeline subalterantive: the Lambert Railroad Right-of-Way Alignment Alternative (Section 6.1.4 of the Original DEIR) and a separate analysis of the Landfill Road Alternative (Original DEIR Section 6.1.5).

In the absence of an actual description of the alternatives included in the analysis, the analysis was meaningless, since it failed the stated CEQA purpose to foster informed decision-making and public participation. In addition, since it was completely unclear what was being analyzed, independent review of the analysis was impossible, and the conclusionary impact statements contained in Sections 6.1.2, 61.3, 6.1.4 and 6.1.5 of the Original DEIR were clearly not supported by substantial evidence. The alternatives analysis and the Original DEIR were thus fatally flawed.

We commented that the Original DEIR needed to clearly and completely describe any alternatives that were not screened-out, including all of the components, so the reader could know what was being analyzed and could conduct independent review.

1.6.3.2 The Consolidated Upper Colima Road With Access Through Arroyo San Miguel Trail And The Truck Loading Facility Directly Off Colima Road Analyzed In Section 6.1.2 Of The Original DEIR Was An Infeasible Alternative

This alternative was not feasible. As described on Original DEIR page ES-6 and 5-11, under this alternative: “production would occur from a series of previously disturbed oil and gas production pads north of the Preserve parking lot and north of the proposed Project East Well

Site adjacent to Colima Road. This alternative would encompass four different preexisting pads covering approximately 5 acres in addition to the Proposed East Site." The East Site per Table 2-3 of the Original DEIR includes 1.1 acres within the fenceline and 2.1 disturbed acres. The full acreage disturbed by the other four sites is not provided in the very limited description of the alternative provided on Original DEIR pages ES-6 and 5-11. However, given the limited description provided, this alternative was at least 6.1 acres in size but more likely greater than 7.1 acres. It includes five well sites as shown in Original DEIR Figure 5-4. As shown in Original DEIR Figure 5-4, the well sites were separated spatially and topographically, making consolidation infeasible without significant landform modification and the creation of a site that was far more than the 6.1 acres of the individual pads. Like the proposed project in the Original DEIR, this alternative therefore did not meet the conditions of Paragraph 6.1 of the Lease Agreement, as the number of sites exceeded three and/or the acreage would be greater than 7 acres. It was therefore infeasible. OSLDF2-22

Furthermore, the description of the alternative on Original DEIR pages ES-6 and 5-11 failed to identify the location of either the processing or trucking facilities associated with this alternative. Impact AQ.2 stated that "(o)perational equipment would be the same since the gas and oil plants at the proposed Project Central Processing Site and the same number of wells and the same equipment would be used." This implied that the processing site would be the Central Processing Site. This would add yet another site to the alternative, raising the site number to 6.

Figure 5-4 of the Original DEIR did not show the location of the truck loading facility associated with this alternative, but did show possible access locations from Colima Road. Since the alternative would include truck loading directly off Colima Road, this would add yet another site to the alternative, raising the number of sites to 7. This alternative was clearly inconsistent with the terms of the Lease Agreement and thus infeasible.

1.6.3.3 The Inadequacy of the Analysis of the Remaining Alternatives In The Original DEIR

Once the infeasible Consolidated Upper Colima Road With Access Through Arroyo San Miguel Trail And The Truck Loading Facility Directly Off Colima Road Alternative was screened out, what is clear is that the Original DEIR contains no feasible project, and only two alternatives:

> The No Project Alternative; and,
> The Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing

OSLDF2-23

What the Original DEIR did is next was to break each of the four components of the Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative up, and analyze each component separately. This amounts to improper piecemealing of the analysis of the alternative. The reader was left to try to figure out how to add the individual impacts of the components together in order to determine the impact of the Consolidated Central Site Alternative with Landfill Access and Integrated

Truck Facility and Lambert Railroad Pipeline Routing Alternative as a whole. This is completely unacceptable and rendered the analysis of the Consolidated Central Site Alternative meaningless. The Original DEIR's conclusion that this alternative was Environmentally Superior was also similarly meaningless.

1.6.4 The Original DEIR Contained A Meaningless Analysis of the Consolidated Central Site with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative

The Original DEIR doesn't actually contain a detailed analysis of this alternative. What it does contain is an analysis of each of the four components. The exercise of trying to combine the four components together, to gain an understanding of the combined impact of this alternative for purposes of comparing it to the proposed project in the Original DEIR, was complicated by the fact that the analysis of each component assumed that the remaining components were the same as for the proposed project. Thus the analysis of the Consolidated Site Alternative (Original DEIR Section 6.1.3 – Original DEIR pages 6-38 to 6-41) assumed that the truck facility would not be integrated, access from Colima Road, and the pipeline route defined for the Proposed Project.

The analysis of the Lambert Railroad Right-of-Way Alignment Alternative (Original DEIR Section 6.1.4 – DEIR pages 6-38 to 6-41) varies only the pipeline route; remaining components are the same as the proposed project.

The Landfill Road Alternative (Original DEIR Section 6.1.5 – Original DEIR pages 6-42 to 6-65) analysis is intended to apply to either the proposed project or the Consolidate Site Alternative (see Original DEIR page 6-45). Original DEIR Section 6.1.5.7 presents traffic data for the Landfill Road alignment; however, the Original DEIR did not contain an appendix with a Traffic Impact Analysis for either this component routing, or for the Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative as a whole.

The analysis of the Integrated Truck Loading Facility Alternative (Original DEIR Section 6.1.6 – Original DEIR pages 6-66 to 6-69), as stated on Original DEIR page 6-66, similarly applied to the proposed project and all of the alternatives.

The analysis of the environmental impacts of each of these components was based on the analysis of the environmental impacts of the "Proposed Project" contained in the Original DEIR. The analyses contained in Original DEIR Sections 6.1.3 to 6.1.7 thus suffered from the same errors and omissions as the analysis of the Proposed Project detailed in our comment letter on the Original DEIR. These errors and omissions were detailed in Section 5 of our comment letter on the Original DEIR. All of the comments contained in Section 5.2 to 5.2.14 of our comment letter on the Original DEIR were also true for the analysis of the components of the Consolidated Site Alternative and we requested that these same comments be addressed for the alternative. However, we requested that they be addressed for the alternative as a whole, not for the

component pieces, as an analysis of component pieces does not provide a basis for comparison of the alternative as a whole, to the phase 1 proposed project as a whole.

The sum total of the description of the Consolidated Central Site with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative was provided on Original DEIR page 5-6 and **Figure 5-2**, which is reproduced below.

Figure 5-2 Consolidated Central Site

OSLDF2-24

FIGURE 2
ORIGINAL DEIR FIGURE 5-2 - CONSOLIDATED SITE ALTERNATIVE

The Original DEIR provided:

No project plans
No site plans
No roadway plans
No infrastructure plans
No drainage plans
No operational plans
No Traffic Impact Study prepared by a qualified traffic engineer
No Geotechnical Study prepared by a qualified geologist
No Hydrology Study prepared by a qualified hydrologist or geohydrolgist
No Habitat Conservation Plan
And, is lacking many of the other plans needed for a meaningful analysis

This was particularly troubling, given this alternative was identified as the environmentally superior alternative and endorsed by Matrix Oil. Also troubling was the fact that the analyses of the components of the alternative contained a series of conclusionary statements unsupported by any analysis. No real analysis was provided for the alternative as a whole. The reader was left to mentally try to figure out how the various component analyses combined to provide a picture of the biological, aesthetic, etc., impacts of the alternative as a whole. A comparison of the impacts of this alternative and the proposed project was thus meaningless. The Revised DEIR is thus based on a flawed premise that the Consolidated Site Alternative was the Environmentally Superior Alternative.

1.6.5 The Original DEIR Contained An Inadequate Analysis of the No Project Alternative

The analysis of the required CEQA No Project Alternative is located on Original DEIR page 6-3. Here is the sum total of the analysis of the No Project Alternative:

> The No Project Alternative would neither install processing equipment nor conduct well drilling operations. Therefore, impacts would not occur and the area would remain in its current condition.

OSLDF2-25

Both the description and the analysis of the No Project Alternative in the Original DEIR were woefully inadequate. What was the No Project Alternative? Did No Project mean that the Lease Agreement was canceled and there would be no potential for any further applications under the Lease Agreement, or did it mean that the phase 1 project as proposed would not go forward, but that the applicant would be free to try again with another Conditional Use Permit application?

1.6.6 The Original DEIR Contained An Defective Analysis of the Environmentally Superior Alternative

Table 6-31 in Original DEIR Section 6.2 contained a comparison of the "Environmental Impacts for the Proposed Project and Alternative." However, the reader was left wondering what the alternatives were, and what combination of components was represented in the Table. Did the Table compare complete alternatives and if so, what combination of the four components made up each of the alternatives compared in the Table? Or did the Table compare the impacts of the phase 1 project as a whole to the just the two alternative site components? As presented in the Original DEIR, Table 6-31 was meaningless.

The discussion of the environmentally superior alternative in Original DEIR Section 6.3 was similarly confusing. It was difficult from the labels used for the alternatives, for the reader to determine which combination of the four components (sites, roadway, truck facility location, pipeline route) made up each alternative discussed.

Original DEIR Table 6-33, which compared impacts from the various alternatives, was incomplete as it failed to address the additional impacts identified in Section 5 of our comment letter on the Original DEIR.

The discussion of the Environmentally Superior Alternative in Section 6.3.17 of the Original DEIR (Original DEIR pages 6-86 to 6-87) failed to identify the No Project Alternative as the actual environmentally superior alternative. In addition, given the fact that there were no plans of any kind, beyond a few lines on a map, presented in the DEIR for the components which made up the Consolidated Central Site With The Landfill Road Access An Integrated Truck Loading Facility And The Lambert Railroad Right-Of-Way Pipeline Alternative, and no analysis of this specific complete alternative in the Original DEIR, conclusions regarding the relative merits of this combination of components was speculative at best.

The Los Angeles County Regional Parks and Open Space District, in its December 6, 2010 comment letter on the Original DEIR had essentially the same criticism, stating on page 6 of their comment letter:

> As required pursuant to Section 15126.6(e)(2) of the State CEQA Guidelines, the Draft EIR must identify the Action Alternative that constitutes the Environmentally Superior Alternative. The Draft EIR incorrectly refers to portions of alternatives in making the designation of the Environmentally Superior Alternative. The Draft EIR needs to craft a single alternative that meets most of the basic objectives of the project and is capable of avoiding significant impacts associated with the proposed project, including, but not limited to, air quality (staged construction to avoid construction impacts and use of Best Available Technology to minimize operational impacts), biological resources (avoids all direct, indirect, and cumulative impacts to coastal California gnatcatcher and

OSLDF2-26

suitable habitat), hazards and hazardous materials (use of containment systems), and avoidance of all streambed crossings. . . .

The City's land use decision-making process would be better served by an alternative that combines successful avoidance strategies into a single alternative. Similarly, the District in its role as a Responsible Agency would advise the City to consider the alternative that successfully avoids and minimizes significant effects to the designated use of the lands and associated environmental resources. Based on the information contained in the Draft EIR, the "No Project" alternative appears to be the Environmentally Superior Alternative. The EIR appears to have failed to accurately characterize an alternative that is capable of achieving most of the basic objectives of the project and avoiding the significant effects of the project.

1.6.7 Result Was The Incorrect Identification of the Consolidated Site Alternative As The Environmentally Superior Alternative

Rather than correct the defects in the analysis of the Consolidated Site Alternative, prior to embracing this version of the project, and deeming it the Environmentally Superior Alternative, the City and the applicant have touted the Revised DEIR as a document that analyzes the Environmentally Superior Alternative from the Original DEIR as the proposed project (see Revised DEIR page 1-1, for example). As we shall document in this comment letter, the proposed project analyzed in the Revised DEIR is not the same as the Consolidated Site Alternative, labeled the Environmentally Superior Alternative in the DEIR, and the desire to perpetuate this myth, has resulted in a revised DEIR, which is prejudiced in its judgments regarding impacts, by a need to be consistent with the key findings of the Original DEIR regarding the significant unmitigatible impacts of the Consolidated Site Alternative. OSLDF2-27

1.7 THE ORIGINAL DEIR WAS STAGE ONE OF A PROJECT BATE-AND-SWITCH

In our comment letter on the Original DEIR we commented on the fact that the Original "DEIR wastes the public's time by spending hundreds of pages analyzing a project which does not meet the terms of the Lease Agreement and is therefore infeasible, while providing a very brief analysis of the Consolidated Central Site alternative, which appears to be the defacto project." In fact there is now clear evidence that plans were underway to substitute the Consolidated Site Alternative for the project, even before the public and responsible agencies had completed commenting on the Original DEIR. Since commenters were not informed of this, they focused their comments on the infeasible proposed project. Asking the public and responsible agencies to comment on an EIR for an infeasible project, and then engaging in the project bate-and-switch that has occurred subsequently is a total violation of the public trust and spirit of CEQA. The City asked the public and responsible agencies to waste their resources commenting on an EIR for a version of the project, which infeasible. OSLDF2-28

1.7.1 Matrix Announced Support for the Consolidated Site Alternative Prior To The Close Of The Public Comment Period

Even before the close of the comment period on December 6, 2011 on the Original DEIR, there was evidence that our suspicions were in fact true. Matrix Oil had already indicated its support for the Consolidated Site Alternative. On November 3, 2010, Matrix Oil announced its support for the vaguely described and poorly analyzed Consolidated Site Alternative. (See **EXHIBIT K**). OSLDF2-29

1.7.2 The City's Lobbyist Described the Consolidated Site Alternative As The Project

In addition, the City's lobbist, Esther Feldman on page 1 of her sworn declaration dated December 15, 2010 in case BS128995, reproduced below, had described the proposed project as:

> 2. The proposed Whittier Mineral Extraction Project (Project) would be on approximately seven of 1,290 acres of the Puente Hills Landfill Native Habitat Preserve (Preserve). The Project would use horizontal drilling technology to extract oil and gas from underneath these 1,290 acres, which comprise the Whittier Main oil field, and would use an existing road connecting to the City's Savage Canyon Landfill for access to the Project site. These former oil drilling lands were purchased in 1995 from Chevron and Unocal by the City of Whittier (City) with funds from the L.A. County Park and Open Space Act of 1992 (Proposition A) for preservation of natural lands and open space. These former oil drilling lands have many unmet restoration needs, and the City has been working to effect restoration of natural habitat when feasible. Matrix Oil Corporation has a Conditional Use Proposal before the City for the Project. The Project elements on the Preserve would include drilling and operating of up to 60 underground wells and constructing related oil and gas processing facilities on the seven acre site, installing an underground pipeline and improving the Landfill Road. OSLDF2-30

Within days of the close of the public comment period, the City's lobbyist in her sworn declaration thus describes the Consolidated Central Site Alternative with the Landfill Road Access, not the proposed project analyzed in the DEIR, as the Proposed Project.

1.7.3 The Socioeconomic Analysis In Appendix H Of The Original DEIR Appears Based On The Consolidated Site Alternative

Like Ms. Feldman, AECOM Technical Services, Inc. the preparers of the August 6, 2010 Socioeconomic Analysis for the Whittier Main Oil Field Development Project, contained in Appendix H of the Original DEIR also appeared to have been operating on the assumption that the Consolidated Central Site Alternative with the Landfill Road Access was the real project. This is evident from the figures in the study that show the area of key impacts, such as **Figure 33**

from Original DEIR Appendix H, which is reproduced below. This figure clearly shows noise impacts along the Landfill Road Access alignment. Apparently it was only the public and responsible agencies who were being deceived as to the real project under consideration.

Figure 33: Noise Impact Area (Drilling and Operations)

OSLDF2-31

Note: AV = Residential Properties Only.
Source: MRS; Los Angeles County Assessor Parcel Data (2009)

FIGURE 3:
FIGURE 33 FROM THE ORIGINAL DEIR

It is thus clear that not only was the Original DEIR a case of post hoc rationalization for the Lease Agreement, but it was also a case of post hoc rationalization for a first phase project (Consolidated Central Site Alternative with the Landfill Road Access) disguised as an alternative. In crafting this deception, the City violated the public's trust and misused the CEQA process

1.8 ENLARGEMENT OF THE CONSOLIDATED SITE ALTERNATIVE IS STAGE TWO OF AN APPARENT PROJECT BATE-AND-SWITCH

Once the applicant and City had apparently indoctrinated the public with the false concept that the very vaguely described Consolidated Site Alternative was the "environmentally superior alternative," Stage Two of the project bate-and-switch began. This stage has involved the creation of an ever larger and more impactful proposed project in the same general area as mislabeled, poorly analyzed and vaguely described "Environmentally Superior Alternative" from the Original DEIR. OSLDF2-32

1.8.1 Matrix Releases YouTube Promo Video Showing The Revised Project Two Days After the Close of the Public Comment Period on the Original DEIR

Although the Original DEIR included only the vaguest of descriptions of the Consolidated Site Alternative (see Section 1.6.4 of this Comment Letter), on December 8, 2010, two days after the close of the public comment period on the Original DEIR, Matrix Oil posted a YouTube Video with a detailed tour of Matrix's project. In this video tour of a Consolidated Central Site project (video at 1:55), Mr. McCaskey, Executive Vise President of Matrix Oil, states that Matrix proposes to drill for oil from one site within the Whittier Hills. OSLDF2-33

The Figure on the following page is a screengrab from the video, which shows the rendering of the Consolidated Site version of the project, which is the project shown in the video. A comparison of this graphic with Figure 5-2 of the Original DEIR shows that the Consolidated Site version of the project depicted in the video is larger than the Consolidate Site Alternative analyzed in the Original DEIR.

(see: http://www.youtube.com/watch?v=tLmBbydNKTk&feature=player_embedded)

1.8.2 The Geotechnical Report for the Revised DEIR Contains An Analysis of A Larger Consolidated Site Alternative Dated August 5, 2010

The Geotechnical Report included in Appendix L of the Revised DEIR is dated January 13, 2011, but is based on a version of the Consolidated Site Alternative, per page L-70 of the Report, dated August 5, 2010, which appears to generally match the design of the larger version of the Consolidated Site contained in Matrix's December 8, 2010 Youtube Video, and Matrix's April 5, 2011 Revised CUP submission (see Section 1.10 of this comment letter). The design thus pre-dates the release of the Original DEIR, which includes a smaller footprint for the Consolidated Site Alternative, and only a very vague description of the Consolidated Site Alternative. If this larger and more detailed design was already in existence, why was this information not included in the Original DEIR?

It is thus clear that the Original DEIR was intended to get the public to embrace the "Environmentally Superior Alternative" while defining so minimally, that it could be whatever the applicant wanted it to be.

OSLDF2-34

FIGURE 4
SCREENGRAB OF THE CONSOLIDATED SITE FROM MATRIX'S DECEMBER 8 2010 YOUTUBE VIDEO

1.8.3 City Announces It Will Not Recirculate the Original DEIR

Even though the City should have had clear indication that the Original DEIR was fatally flawed, the City had received numerous comments on the need for the Original DEIR to be fixed and recirculated, it was clear that Matrix Oil and the City considered the Consolidated Site Alternative the proposed project, and Matrix had posted a video with a version of the Consolidated Site Alternative that was different than what was analyzed in the Original DEIR, the City announced on February 24, 2011 that it would not be correcting and recirculating the Original DEIR. (See EXHIBIT L). All of the comment letters on the NOP for the Original DEIR and on the Original DEIR are incorporated herein by reference. OSLDF2-35

1.8.4 However, The Result of the Fatally Flawed Original DEIR was 1,254 Comments on the Original DEIR, the Need for Recirculation and The Risk of Inadequate Time to Complete the Process In Accordance With the Terms of the Lease Agreement

According to paragraphs 1, 4.1 and 6.1 of the Lease Agreement, Matrix had three years from the date of the Lease Agreement to "commence and diligently prosecute the drilling of at least three wells . . . failing in which this Lease shall terminate. This means that Matrix Oil had three years to complete the environmental process and begin drilling of the test wells. The Lease Agreement is dated October 28, 2008. This means that Matrix had until October 28, 2011 to complete the FEIR, obtain CUP approval from the City and obtain "release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. Given that the public comment period for the Original DEIR closed on December 6, 2010, the City received 1,254 comments from 169 people/organizations on the Original DEIR according to the City, and numerous individuals, groups and responsible agencies had commented on the legal inadequacy of the Original DEIR and the need for the document to be revised and recalculated, it was clear that the process could not be completed within the timeframe specified in the Lease Agreement. OSLDF2-36

1.8.5 City Announces That Matrix Oil Has Filed A New CUP Application And The Preparation Of A New EIR

On April 6, the Whittier Daily News announced that Matrix Oil had filed a new CUP application with the City on April 5, 2011. (See **EXHIBIT A**). The Revised DEIR needs to detail the reasons why the City decided to prepare a Revised DEIR. OSLDF2-37

1.9 FAILURE TO CONDUCT CEQA ANALYSIS PRIOR TO APPROVAL OF THE LEASE AMENDMENT

On April 12, 2011 the City then approved a Lease Agreement Amendment. (See **EXHIBIT M**). The Lease Agreement Amendment gives Matrix an additional three years to obtain the necessary approvals and to begin drilling the test wells. This Lease Amendment was approved without conducting CEQA review, despite comments from Open Space Legal Defense Fund, the Los Angeles County Regional Park and Open Space District and the California

Department of Fish and Game, regarding the need to analyze the impact of the Lease Agreement and the whole of the action, not just the first of the CUP applications under the Lease Agreement, in an EIR.

The Los Angeles County Regional Park and Open Space District stated on page 2 of its comment letter on the Original DEIR:

> In 2008, the City of Whittier leased 1,290 acres within the Whittier Hills to Matrix Oil Corporation for development of an oil field subject to completing an analysis pursuant to CEQA. The City has now released a Draft EIR for public review that analyzes the development of 7 acres within the Whittier Hills Wilderness Area as an oil field. However, the project, for the purposes of the EIR, needs to consider the potential impacts of the lease agreement with Matrix Oil Corporation that would open 1,290 acres of the Whittier Hills Wilderness Area to mining, oil, and natural gas extraction and related activities. The District was constrained in its ability to review the Draft EIR based on Section 15002(h) of the State CEQA Guidelines, which states:
>
> > CEQA requires more than merely preparing environmental documents. The EIR by itself does not control the way in which a project can be built or carried out. Rather, when an EIR shows that a project would cause a substantial adverse change in the environment, the governmental agency must respond to the information.
>
> Since the Draft EIR, incorrectly limits the scope of analysis to the direct impacts of the oil field site and associated staging areas rather than the direct, indirect, and cumulative impacts of all activities that could result from the lease, the District has insufficient information to determine the full extent to which the original intended purpose of the park and open space lands for preservation of wildlife and natural lands has been compromised.

Similarly, the California Department of Fish and Game stated on pages 3-4 of its comment letter:

> 2. Whole of the Action Considerations - The DEIR states “On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement (Lease Agreement) with Matrix. The agreement leases the City’s mineral rights underlying the Whittier Main Field to Matrix and provides that, subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land.”

a. The DEIR does not appear to reference any previous level of CEQA review regarding the Oil, Gas, and Mineral Lease Agreement with Matrix in 2008 or a zoning ordinance change to accommodate the project. CEQA requires a lead agency to consider the whole of the action when analyzing a project's environmental impacts (CEQA Guidelines §15063(a)(1), §15378). This includes activities that lead to reasonably foreseeable direct and/or indirect effects which are actual or potential (CEQA Guidelines §15064(d)).

b. If the Lead Agency prepared a Negative Declaration or Environmental Impact Report for the Lease Agreement, the Department believes that this action is part of the same project and should have been discussed in one CEQA document which included the proposed Project CUP consideration prior to entering into the Lease Agreement. The preparation and circulation of separate CEQA documents for actions that are parts of the same project (commonly referred to as "piece-mealing") is therefore not allowed by CEQA. The Department believes the Lease Agreement, zone change request and the CUP should be noticed under one CEQA document as it was reasonably foreseeable that the proposed Project and zone change is the direct and/or indirect effect of the Lease Agreement. OSLDF2-38

c. If the Lead Agency prepared a Categorical Exemption for their discretionary issuance of a Lease Agreement, a Categorical Exemption should not be used for any activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances (CEQA Guidelines §15300.2(c).

d. The Department recommends that the Lease Agreement be invalidated pending further Lead Agency discretionary action approvals following the public comment period for a CEQA documents that includes the whole of the action which includes the Lease Agreement, request for zone change and CUP if this has not already been accomplished.

Rather than respond to these comments from OSLDF and responsible agencies which identified the need for CEQA review prior to issuance of the Lease Agreement, the City instead issue a Lease Agreement Amendment without first conducting CEQA review and proceeded to prepare a Revised DEIR for the Matrix's Revised CUP application, which like the Original DEIR, is fatally flawed because it fails to address the whole of the action.

The City thus violated CEQA by failing to prepare an EIR for the Lease Agreement Amendment. The City also violated CEQA, as discussed more fully in Section 1.13 of this comment letter, because both in approving the Lease Amendment and in the Revised DEIR the City has failed to comply with Guideline Section 15088.5(f)(1) which states that when recirculating an EIR "(i)n no case shall the lead agency fail to respond to pertinent comments on

significant environmental issues." The City has clearly failed to respond to these pertinent comments from responsible agencies received on the Original DEIR regarding fatal flaws in the City's process and environmental documents.

1.10 THE PROJECT DESCRIBED IN MATRIX'S APRIL 5 2011 AMENDED CUP APPLICATION AND THE NOP IS NOT THE SAME AS THE "ENVIRONMENTALLY SUPERIOR ALTERNATIVE" IN THE ORIGINAL DEIR

The Consolidated Site Alternative, which was found to be the "Environmentally Superior Alternative" in the Original DEIR, is depicted in Figure 5-2 of the Original DEIR (see Section 1.6.4 of this comment letter). On page 5-6 of the Original DEIR the Consolidated Central Site is described as follows:

> With this alternative, the Project would be limited to one consolidated site for drilling and production of oil and gas. The proposed Central Site would be utilized for the processing of the oil and gas (the same as the proposed Project), with well drilling and a large well cellar installed in disturbed alternative pads immediately north and west of the proposed Central Processing Site. This alternative would locate the drilling of oil and gas from the proposed Project locations on the Central, West and East Well Sites to historically utilized pads of about 2-3 acres immediately adjacent to the area proposed for the Central Processing Site (see Figure 5-2). Cut and fill amounts would be similar to the proposed Project with a disturbed area equal to approximately 3 acres.

The description clearly states that cut and fill amounts would be similar to the proposed Project with a disturbed area equal to approximately three acres. Cut and fill amounts for the Proposed Project in the Original DEIR were provided in Original DEIR Table 2-6 which is reproduced below:

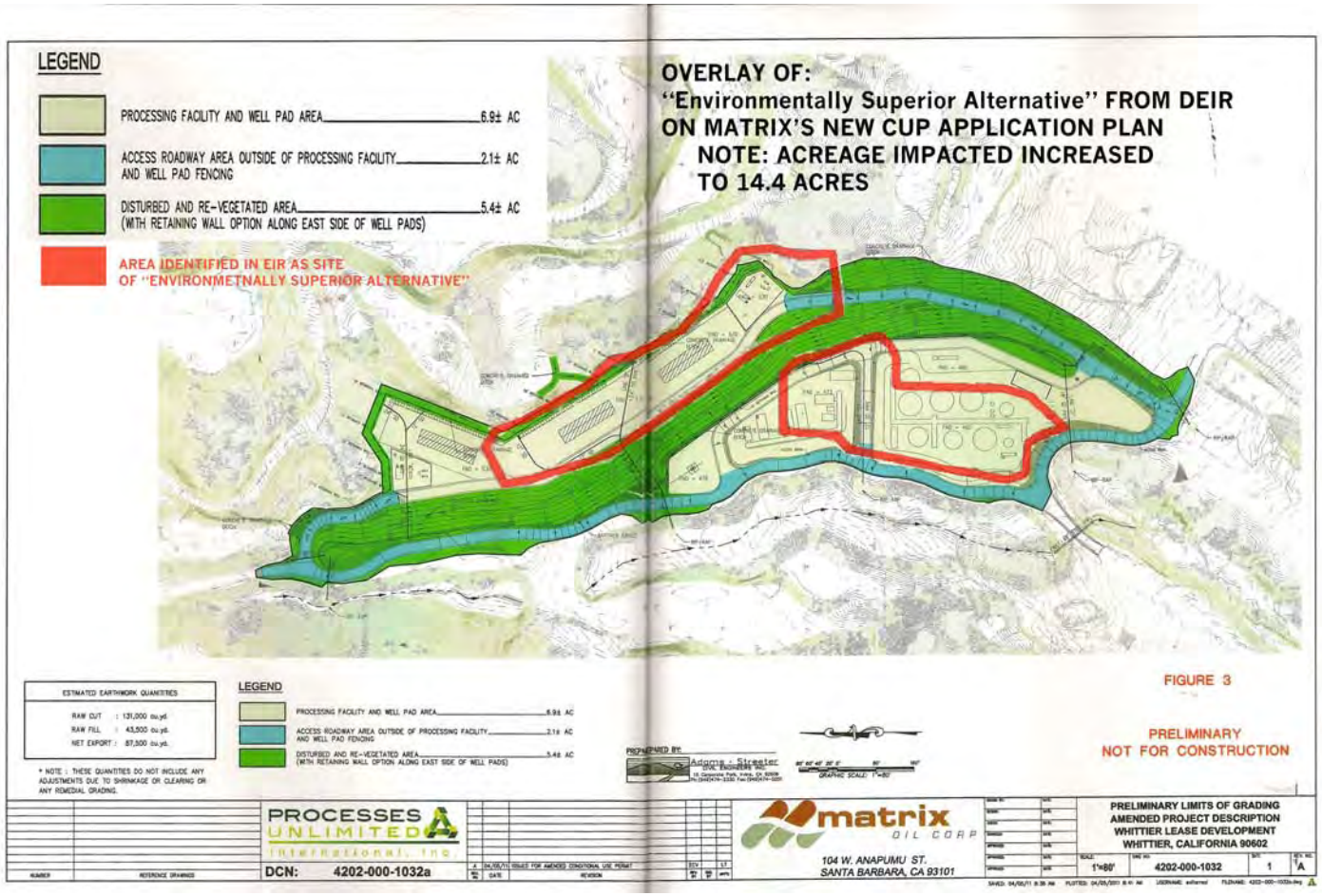
TABLE 4
TABLE 2-6 FROM THE ORIGINAL DEIR

Table 2-6 Cut and Fill Amounts

Location	Cut (cubic yards)	Fill (cubic yards)	Net Export (cubic yards)
East Well Site	21,800	1,050	20,750
West Well Site	1,870	9,300	-7,430
Central Well Site	1,100	9,300	-8,200
Central Processing Site	27,900	10,850	17,050
Total	52,670	30,500	22,170

Source: Matrix Application Data Request #1

The following Figure contains an overlay of the Consolidated Site Alternative from Figure 5-2 of the Original DEIR on the site plan for the Consolidate Site provided in Matrix's April 5, Revised



OSLDF2-39

FIGURE 5:
COMPARISON OF THE CONSOLIDATED SITE ALTERNATIVE FROM THE ORIGINAL DEIR WITH MATRIX'S AMENDED CUP APPLICATION PLAN

CUP Application. As can be seen from the Figure, both the size and the amount of cut, fill and soil export are substantially greater than under the "Environmentally Superior Alternative" in the Original DEIR.

Rather than impacting a mythical seven acres, this site plan clearly shows that the Consolidated Site would impact 14.4 acres, exclusive of the access roadway. This version of a Consolidate Site is thus substantially larger than the description of the "Environmentally Superior Alternative" in the Original DEIR.

Rather than requiring 52,670 cubic yards (cy) of cut, 30,500 cy of fill and only 22,170 cy of soil export, Matrix's Revised CUP Application includes 131,000 cy of cut, 43,500 cy of fill and net export of 87,500 cy of soil, substantially more than the Consolidated Site Alternative/Environmentally Superior Alternative described in the Original DEIR.

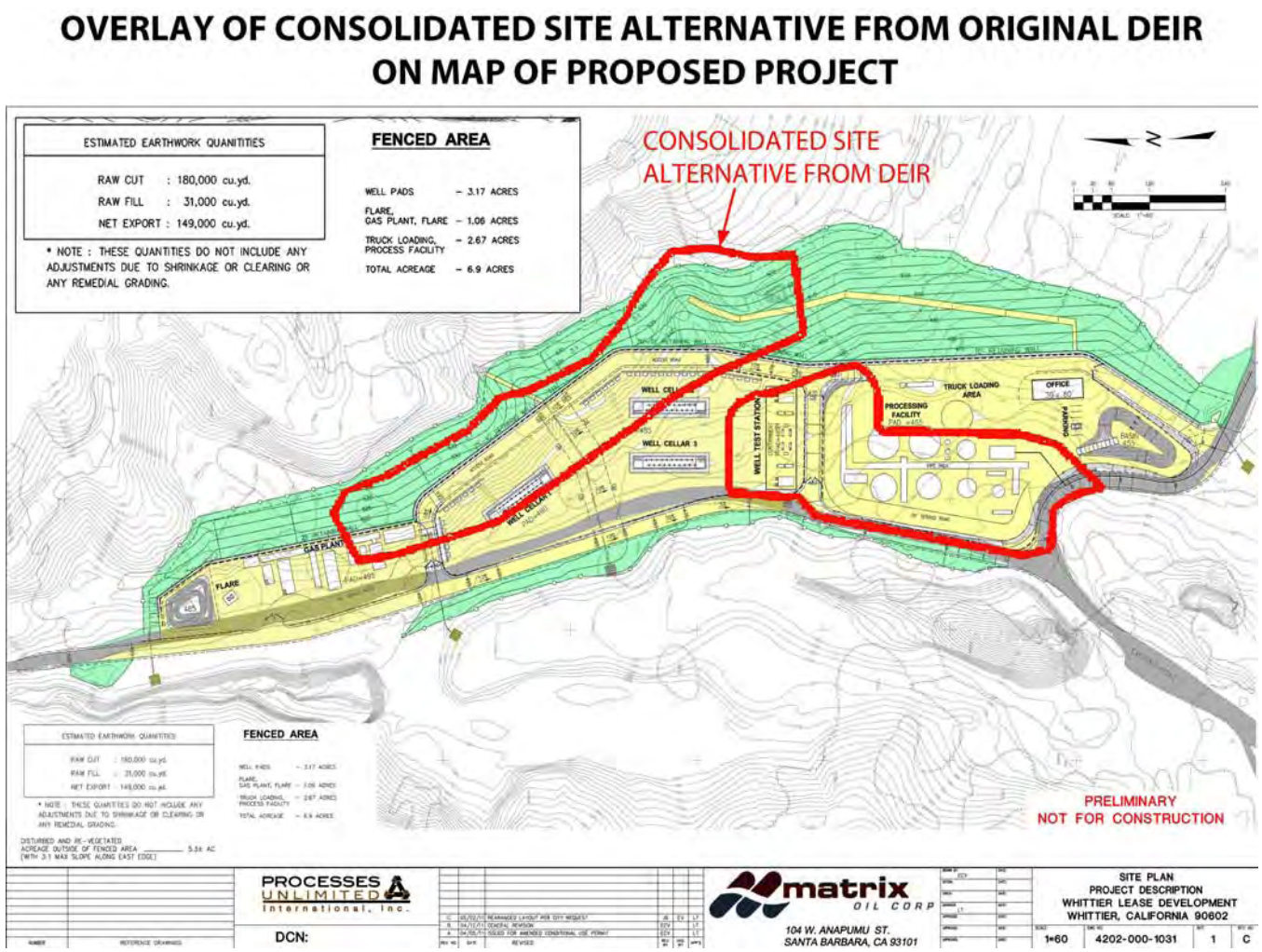
1.11 THE PROJECT ANALYZED IN THE REVISED DEIR IS NOT THE SAME AS THE PROJECT DESCRIBED IN THE NOP

On April 20, 2011 the City issued the Notice of Preparation (NOP) and Scoping Document for the Revised DEIR. Figure 2-2 of this document appears to show the paved portions of the site plan from Matrix's April 5, Revised CUP application, but does not show the disturbed and revegitated areas or site access ways. On page 3 of the NOP, the document accurately states that: "The Project Site is generally located in the area of the Central Consolidated Site, identified as the environmentally superior alternative in the previous Oilfield project Draft EIR."

On May 5, 2011 the City held Scoping Meeting for the Revised DEIR. The Scoping Meeting notice stated that:

> The Project is a revision to the previous Oilfield project, described in the DEIR (submitted for public review 10/6/2010 through 12/6/2010). The revised Project incorporates aspects of the environmentally superior alternative and is being proposed by the applicant in order to reduce areas of disturbance and potentially significant environmental impacts.

Although the project described at the scoping meeting and in the NOP appears to match the Revised CUP application, submitted by Matrix on April 5, 2011, this is not the project analyzed in the Revised DEIR. The following Figure provides a comparison of the Consolidated Site Alternative from the Original DEIR with the Proposed Project analyzed in the Revised DEIR.



OSLDF2-40

FIGURE 6:
COMPARISON OF THE CONSOLIDATED SITE ALTERNATIVE FROM THE ORIGINAL DEIR WITH THE PROPOSED PROJECT IN THE REVISED DEIR

Apparently the City requested the layout be rearranged and it is the rearranged layout dated 5/2/11-5/9/11 in Appendix A of the Revised DEIR that is the subject of the Revised DEIR. Interestingly, the figure on Page A-5 of Appendix A of the Revised DEIR shows that the consolidated arrangement dwg file was received by the civil engineering firm on 08/05/10. It thus appears that this version of the consolidated site was also in existence prior to the public comment period on the Original DEIR. Why was this alternative site configuration not addressed in the Original DEIR?

The EIR needs to: explain why the design was modified between the issuance of the NOP and the release of the Revised DEIR; list the specific modifications requested by the City; and explain the reasons for those modifications.

The Revised DEIR states on page 1-1:

> In October 2010, a Draft EIR was released to the public for a 60-day public comment period. Subsequently, in April of 2011, the Applicant amended its CUP application to modify the Project to conform to the Environmentally Superior Alternative identified in the October 2010 Draft EIR. The revised Project is the subject of this environmental review.

This is a false statement. The revised project clearly does not "conform to the "Environmentally Superior Alternative" identified in the October 2010 Draft EIR." The Revised DEIR thus misleads the public.

Not only is the site configuration different than in the Original DEIR and the landform modification significantly greater, the proposed project in the Revised DEIR would make use of the Loop Trail as a secondary access route to the facility. Page 2-26 of the Revised DEIR states:

> In addition, the Loop Trail Road (4,100 feet) may need to be widened to 20 feet according to Fire Department requirements for a secondary access route to the facility from Colima Road. This would impact approximately 1.7 acres, including the existing roadway, with approximately 0.3 acres newly disturbed.

In the Original DEIR, not only was the Loop Trail Road, not a part of the "Environmentally Superior Alternative" it was eliminated from the Alternatives analysis due to its impacts. Section 5.1.3.1 on page 5-13 of the Original DEIR has the following to say about the Loop Trail Road as an access alternative:

> **Impacts That Are More than the Proposed Project**
>
> However, this alternative access would interfere with existing recreational users since a part of the road is a hiking trail used by Preserve visitors. This access road would also be longer than that associated with the proposed

Project and it would affect a larger area. It is therefore eliminated from further consideration.

The Proposed Project in the Revised DEIR results in substantially more landform modification than the Consolidated Site/Environmentally Superior Alternative Described in the Revised DEIR. The Proposed Project in the Revised DEIR is described in the Revised DEIR as impacting 30.6 acres.

The Proposed Project in the Revised DEIR is not the same as the "Environmentally Superior Alternative", and it is not the same as the project described in the NOP and Scoping document. "An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (*County of Inyo v. County of Los Angeles*, 71 Cal.App. 3d, 185, 193). Clearly the project description has not been consistent throughout the Revised DEIR process, and the public has been mislead on numerous occasions by being told that the proposed project is the same as the "Environmentally Superior Alternative" from the Original DEIR. Any reference to the proposed project as the "Environmentally Superior Alternative" from the Original DEIR must be removed from the Revised DEIR and the Revised DEIR needs to include a clear description of all of the key differences between the "Environmentally Superior Alternative" and the proposed project and the reasons for any changes.

The Consolidated Site portion of the Proposed Project analyzed in the Revised DEIR requires substantially more soil export than either the "Environmentally Superior Alternative" from the Original DEIR or Matrix's April 5, 2011 Revised CUP submittal as shown in the following summary table:

TABLE 5
COMPARISON OF THE AMOUNT OF CUT, FILL AND SOIL EXPORT ASSOCIATED WITH THE DIFFERENT VERSIONS OF THE CONSOLIDATED SITE

VERSION OF THE PROJECT:	**CUT (CY)**	**FILL (CY)**	**SOIL EXPORT (CY)**
"Environmentally Superior Alternative From Original DEIR"	53,670	30,500	22,170
Matrix's April 5, 2011 Revised Cup Submittal (NOP Project)	131,000	43,500	87,500
Proposed Project In Revised DEIR	180,000	31,000	149,000

This substantial increase in cut, fill and export is important and significant because the first phase project is located within the Core Habitat area of the Preserve and within designated Critical Habitat of the California gnatcatcher in an area where this protected species has been observed.

According the Los Angeles County Department of Public Works: a cubic yard of soil is approximately the same size as a washing machine and the Rose Bowl in Pasadena would hold about 400,000 cubic yards of soil. (See: http://ladpw.org/wrd/sediment/why_move_dirt.cfm. For purposes of perspective, the Revised DEIR should explain that the amount of soil being moved (180,000 cy) is nearly enough to fill the Rose Bowl half full and the amount of soil to be exported, is as if the proposed project were exporting 149,000 washing machines from the project site.

1.12 STAGE THREE OF THE APPARENT PROJECT BATE AND SWITCH: SAME CONCLUSIONS – DIFFERENT PROJECT

Although the proposed project in the Revised DEIR is clearly larger and results in substantially more landform modification than the "Environmentally Superior Alternative" in the Original DEIR, the Revised DEIR reaches essentially the same conclusions regarding the significant unmitigated impacts of the proposed project analyzed in the Revised DEIR, as the Original DEIR did about the Consolidated Site Alternative. OSLDF2-41

1.12.1 The Revised DEIR Which Reaches The Same Conclusions As The Original DEIR Regarding The Significant Unmitigatible Impacts Of The Project Apparently In An Effort To Be Consistent With The Conclusions In The Original DEIR Regarding The Consolidated Site Alternative

Table ES-1 from the Original DEIR summarized the significant unmitigated impacts of the Consolidated Site/Environmentally Superior Alternative. Table ES-1 in the Revised DEIR provides the same information for the proposed project analyzed in the Revised DEIR. The comparison of Table ES-1 from the Original DEIR with Table ES-1 from the Revised DEIR on the following page shows that the Revised DEIR reaches essentially the same conclusions as the fatally flawed analysis of the smaller Consolidated Site/Environmentally Superior Alternative from the Original DEIR. Oddly the impacts of these two very different versions of a Consolidated Central Site are the same. OSLDF2-42

1.12.2 These Conclusions Are Absurd

Bizarrely neither analysis identifies the following significant impacts of the proposed project, which are clear just based on common-sense alone:

> Exceedance of PM10 Regional Construction Air Quality Impact Thresholds resulting from site grading involving 180,000 cy of cut, 31,000 cy of fill and 149,000 cy of exported soil in combination with other construction phase activities.

TABLE 6
TABLE ES-1 FROM THE ORIGINAL DEIR

Table ES-1 Proposed Project Versus Alternative Sites - Significant Unavoidable Impacts

Impact	Proposed Project	Consolidated Upper Colima Road Site Alternative	Consolidated Central Site Alternative
1. Aesthetics: views of equipment above ridgelines			
2. Aesthetics: views of processing equipment	*		*
3. Aesthetics: views of the access road	*		*
4. Aesthetics: views of the drilling rig			
5. Air Quality: construction emission			
6. Air Quality: GHG Emissions			
7. Biology: interruption of a wildlife corridor East Well Site			
8. Hydrology: oil spills into the environment			
9. Land use: aesthetic impacts to adjacent land uses			
10. Land use: noise impacts to adjacent land uses			
11. Noise: drilling vibration impacts to residences			
12. Noise: simultaneous drilling and operations noise impacts to sensitive receptors			
13. Recreation: aesthetic impacts on recreational areas			
14. Recreation: noise impacts on recreational areas			
15. Risk: accident releases affecting populations			
Number of Significant Impacts	15/13*	12	8/6*

* Mitigated by the integrated truck loading facility and the landfill road alternatives. The integrated truck loading facility and the landfill road alternatives would not generate any significant unavoidable impacts. They serve to reduce the impacts of components of the proposed Project.

Shaded = significant impact that cannot be mitigated to less than significant

TABLE 7
TABLE ES-1 FROM THE REVISED DEIR

Table ES-1 Proposed Project Versus Alternatives - Significant Unavoidable Impacts

Impact	Proposed Project	Landfill Site Alternative	Proposed Project with Loop Trail Road
1. Aesthetics: views of the drilling rig			
2. Air Quality: construction emissions			
3. Air Quality: GHG Emissions			
4. Hydrology: oil spills into the environment			
5. Land use: aesthetic impacts to adjacent land uses			
6. Recreation: aesthetic impacts on recreational areas			
7. Recreation: noise impacts on recreational areas			
8. Aesthetics: views of the access roads			
9. Land Use: Speculative permitting of oil and gas facilities within the Landfill			
Number of Significant Impacts	6	6	8

Shaded = significant impact that cannot be mitigated to less than significant

Bizarrely neither analysis identifies the following significant unmitigated impacts of the proposed project, which are clear just based on common-sense alone:

> Biological resource impacts to federally designated critical habitat for the California Gnatcatcher due to the disturbance of at least 30 acres of critical habitat and the introduction of on-going industrial activity within the Preserve.
>
> Biological resource impacts to the federally threatened California gnatcatcher due to the location of the project facilities in an area where gnatcatchers have been observed and the use and expansion of a fire road located in close proximity to a known nesting area for this threatened species.
>
> Biological resource impacts associated with impacts to an important regional wildlife movement corridor. OSLDF2-43
>
> Land Use Policy impacts due to the project's inconsistency with Proposition A.
>
> Land Use Policy impacts due to the project's inconsistency with the City of Whittier's General Plan.
>
> Land Use Policy impacts due to the project's location within designated Core Habitat of a Habitat Preserve and the associated inconsistency with the Resource Management Plan (RMP) for the Habitat Preserve.

These are only several of the significant unmitigated impacts, which the Revised DEIR fails to identify. We would note that not even Matrix Oil believes that the project is consistent with the RMP for the Habitat Preserve. Matrix's attorneys at Kelly Lytton & Wiliams, LLP state in their April 28, 2011 NOP comment letter contained in Appendix I of the Revised DEIR:

> The land use section (EIR, page 4.11-23) defers the determination of consistency with the RMP to a future consistency analysis by decision-makers. That consistency analysis will almost certainly demonstrate that the project is inconsistent with several goals. Because the provision of funding to the Preserve does not offset inconsistency with the RMP goals, it may be necessary to modify the land use and executive summary sections to acknowledge impacts associated with inconsistency with the adopted RMP as potentially significant. To avoid this, we recommend proposing an amendment to the plan to allow limited oil extraction in exchange for ongoing funding as a mitigation measure or as a feature of the project. However, if amending the RMP is outside the control of the City, it may be necessary to conclude that the impacts are significant and unavoidable even if an amendment is proposed.

The Revised DEIR, in an apparent effort to be consistent with the conclusions of the Original DEIR regarding the Consolidated Site/Environmentally Superior Alternative has failed

to identify significant unmitigated impacts of the proposed project and has reached absurd impact conclusions. The Revised DEIR thus appears to be a case of post hoc rationalization of the conclusions in the Original DEIR regarding the Consolidated Site Alternative. This is a fatal flaw of the Revised DEIR.

1.13 LEGALLY INADEQUATE NOTICING OF THE RECIRCULATED REVISED DEIR

The noticing for the Revised DEIR, and the Revised DEIR, fail to comply with CEQA Guidelines Section 15088.5 regarding recirculation of an EIR and the handling of comments on the Original DEIR.

Guidelines Section 15088.5 (f)(1) requires the Lead Agency to "advise reviewers, either in the text of the revised EIR or by an attachment to the revised EIR, that although part of the administrative record, the previous comments do not require a written response in the final EIR, and that new comments must be submitted for the revised EIR. The lead agency need only respond to those comments submitted in response to the recirculated revised EIR."

The Revised DEIR does indicate on page 1-1 that CEQA does not require "this document to include responses to comments on the previous Public Draft EIR. However, the Final EIR will include responses to all comment on this Revised Public Draft EIR." However, the Revised DEIR fails to inform the public that their prior comments are part of the administrative record, therefore does not include the full information required by Guidelines Section 15099.5 and is thus legally inadequate.

Furthermore, CEQA Guidelines Section 15088.5(f)(3) requires:

> (3) As part of providing notice of recirculation as required by Public Resources Code Section21092.1, the lead agency shall send a notice of recirculation to every agency, person, or organization that commented on the prior EIR. The notice shall indicate, at a minimum, whether new comments may be submitted only on the recirculated portions of the EIR or on the entire EIR in order to be considered by the agency.

As shown in **EXHIBIT N**, the notice received by Open Space Legal Defense Fund did not contain this required information. The noticing was therefore legally inadequate. Furthermore, the City sent no notice to Pareto Planning and Environmental Services, which prepared a comment letter on the Original DEIR for Open Space Legal Defense Fund. OSLDF2-44

More importantly, the City created a false impression of how comments would be handled by announcing on April 6, 2011, prior to the issuance of the Notice of Preparation that: (1) Matrix Oil had filed a new CUP application for a revised project which was consistent with the "environmentally sensitive alternative" (sic) from the Original DEIR; and (2) that the Revised DEIR would include responses to the comments received on the Original DEIR. In the Whittier Daily News article reporting this announcement (see **EXHIBIT A**), the City Manager,

Mr. Helvey predicted that the Revised DEIR would be released on June 3 and that it would "include responses to the more than 1,500 comments that were to be included in the report on the first application from Matrix" i.e. that would include responses to comments on the Original DEIR. The Revised DEIR does not include the comments and responses received from the public and responsible agencies on the Original DEIR, nor does it contain responses to those comments. It provides no guidance on whether these comments will be addressed in the Final EIR.

In addition, CEQA Guidelines Section 15088.5(g) requires:

> (g) When recirculating a revised EIR, either in whole or in part, the lead agency shall, in the revised EIR or by an attachment to the revised EIR, summarize the revisions made to the previously circulated draft EIR.

Please indicate where this summary is located in the Revised DEIR, as we have been unable to locate it. Failure to include this summary also renders the Revised DEIR legally inadequate. In addition, it has made the revised of the Revised DEIR more difficult, as commenters on the Original DEIR are forced to reviewed not only the Revised DEIR but also to assess the degree to which the document has addressed prior comments. This has rendered the review time for the Revised DEIR inadequate for the task forced upon prior commenters.

Since the Lead Agency failed to provide the required noticing, many commenters may be unaware that their prior comments have not or will not be addressed. And, since Guidelines Section 15088.5(f)(1) states that "(i)n no case shall the lead agency fail to respond to pertinent comments on significant environmental issues", the onus is on the Lead Agency to respond to the prior comments which were received, which also apply to the proposed project and Revised DEIR. All of the previously submitted comments should be included in the Final EIR along with responses to those comments that are applicable to the Revised DEIR.

2 THE REVISED DEIR CONTAINS A FATALLY FLAWED PROJECT AND PROJECT DESCRIPTION

The project description included in the Revised DEIR is incomplete, understates the magnitude of the project, and describes a project that is infeasible because it violates the terms of the Lease Agreement and Proposition A.

In addition, just like the Original DEIR, the project described in the Revised DEIR is a clear violation of CEQA Guidelines Section 15378 which require analysis of the whole of an action. As discussed more fully in Section 3 of this letter, a lead agency must fully analyze the whole of a project in a single environmental review document and may not piecemeal or split a project into pieces for purposes of analysis. As we previously commented, the Lease Agreement between the City and the oil companies is a key component of the project description and should be included in an appendix to the DEIR. The Revised DEIR fails to describe or analyze the whole of the actions and the full scope of the activities potentially allowed under the Lease OSLDF2-45

Agreement. The DEIR is thus fatally flawed and so fundamentally and basically inadequate that meaningful public review and comment are precluded.

2.1 THE DEIR IS FATALLY FLAWED BECAUSE IT IS FOCUSED ON THE ANALYSIS OF AN INFEASIBLE PROJECT

If CEQA Guidelines Section 15126.6 requires analysis of a range of reasonable alternatives which would feasibly attain most of the basic objectives of the project, analysis of a proposed project which is infeasible, and therefore inconsistent with the most basic project objective, surely is a violation of CEQA. The DEIR's analysis of a proposed project, which does not meet the terms of the Lease Agreement as detailed in Section 2.1 of this comment letter, is a clear example of violation of Guidelines Section 15126.6. The DEIR is thus fatally flawed. OSLDF2-46

2.1.1 Violation Of Lease Terms Results In Underestimate Of Impacts And An Infeasible Project

It is clear that the project as proposed violates the acreage restrictions contained in the Lease Agreement. Paragraph 6.1 of the Lease Agreement specifies that the first Conditional Use Permit application under the Lease Agreement shall be for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes.

Figure 6 in Section 1.11 of this comment letter and page A-2 in Appendix A of the Revised DEIR clearly show that the Central Site Alternative includes +/- 5.3 acres of disturbed and vegetated slopes constructed immediately outside of the consolidated site fence line. These slopes appear to be terraced and include drainage facilities. As shown in Revised DEIR Figure 2-6: Proposed Project Site, this area also includes a required fuel modification zone (FMZ). In fact, as noted on Revised DEIR page 2-13 of the Revised DEIR, required FMZs including 20 feet for facility pads, 10 feet for roads and 100 feet for the office building would encompass an additional 6.9 acres. In addition, there is grading and areas of riprap located outside the fence line within the drainage channel. All of these are part of the facility. Clearly the Consolidate Site involves more than 7 acres. OSLDF2-47

In addition, as shown in Revised DEIR Table 2-3, the proposed project includes 4.1 acres of parking and staging areas, which are depicted on Revised DEIR Figure 2-6 as two adjacent areas. Given that the project site plan shows only five parking spaces within the fenced area of the Consolidated Site, how long will these parking and staging areas be employed? Given the 44 months for the testing and construction phases, five years to drill the wells, inadequate on-site parking for construction vehicles and on-going well redrilling during the life of the project, it appears this additional 4.1 acres represents additional 4.1 acres of defacto project sites.

Paragraph 6.1 of the Lease Agreement states that the first CUP application shall be for more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress

and egress thereto and for pipeline and utility purposes. The project access clearly fails the compact test. As shown in Revised DEIR Figures 2-6 and 2-8, the proposed project includes three access routes: access from Colima Road, access via Savage Canyon Landfill and access via the Loop Road. Project access thus draws a lengthy line through the Habitat Preserve and Core Habitat and Critical Habitat.

The proposed project violates the acreage restrictions in the Lease Agreement and the Lease's intent of keeping the footprint of the first CUP small. In keeping with the Term and Paragraph 6.1 of the Lease Agreement, the City appears obligated to terminate the Lease.

2.1.2 Proposed Project And The Alternatives Violate Proposition A, And Proposition A Makes Both The Project And The Alternatives Inconsistent With The City's Objectives

The DEIR at page 2-1 now states that:

> The City's purchase of the Whittier Main Oilfield was funded by a grant of Proposition A funds. Conditions of this funding require the City to obtain the consent of the Los Angeles County Regional Park and Open Space District (the District) for certain proposed uses or development of the land for anything other than open space or recreational use. In order to use the proposed surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the area used or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.

It does not appear that the Revised DEIR includes an analysis of the project's consistency with Proposition A. It does not appear that the Revised DEIR provides information on how the City will comply with Proposition A requirements. This is a key facet of the project. Failure to include this information as part of the project description renders the Revised DEIR legally inadequate.

The Los Angeles County Regional Park and Open Space District, the agency that must issue a release from protected area status in order for the proposed project to go forward, stated in the County's NOP letter:

Oil field development, appurtenant transmission, operations and maintenance activities would be incompatible with the specified use of lands acquired with Safe Neighborhood Parks Proposition of 1992 (Proposition A) grant monies and would constitute a disposal of the property and/or the generation of non-recreational income that would be required to conform to procedures set forth in Proposition A, the project Grant Agreement and the District's Procedural Guide for the Specified Project, and the Per Parcel Discretionary and Excess Funds Grant Programs[1]. As indicated in Appendix G to the State CEQA Guidelines, such an action constitutes a significant adverse impact related to land use that is required to be disclosed to the public and to the City of Whittier Planning Commission and City Council for their consideration in the land use decision-making process. The District's comments are expressly provided in their capacity as a Responsible Agency whose mission requires the appropriate granting, administration, and monitoring of grant monies provided pursuant to Proposition A to ensure that the specified goals approved by the voters of the County of Los Angeles are achieved, specifically in this case, the preservation, restoration, and rehabilitation of real property to serve as wildlife habitat and natural habitats and to provide public access and trails, to be held in perpetuity. OSLDF2-48

. . .

The EIR should include substantial evidence to make an appropriate evaluation of the proposed project's impacts related to land use and planning. As many of the affected lands were purchased with Proposition A funds, the EIR land use assessment should include a detailed analysis of Proposition A, including the procedures for the disposal of lands. The land use section of the EIR should quantify the number of acres that would be disposed and discuss the consistency of the proposed project with Proposition A and other relevant plans, goals, and policies.

The EIR should disclose the incompatibility of the proposed oil field development, including the proposed oil and gas pipeline, with the intended open space conservation and recreation uses of the lands purchased with Proposition A funds.

Where is this requested analysis located within the Revised DEIR? Where is the disclosure of this significant unmitigated impact located within the Revised DEIR? Failure to disclose this significant unmitigated impact renders the Revised DEIR legally inadequate.

Section 16(b) of the authorizing statute under Proposition A specifies as follows:

> (b) If the use of the property acquired through grants pursuant to this order is changed to one other than a use permitted under the category from which the funds were provided, or the property is sold or otherwise disposed of, an amount equal to the (1) amount of the grant, (2) the fair market value of the real property, or (3) the proceeds from the portion of such property acquired, developed, improved, rehabilitated or restored with the grant, whichever is greater, shall be used by the recipient, subject to subdivision a of this Section, for a purpose authorized in that category or shall be reimbursed to the Parks Fund and be available for appropriation only for a use authorized in that category.

The Revised DEIR needs to disclose that both the surface and mineral rights were purchased with Proposition A funds. Per the second (unnumbered) paragraph of the Lease

Agreement, the lease is for 1,280 acres, more or less. Reimbursement or compensation for only 7 acres, or for only the area disturbed, or for only the area removed from public open space, or for only the number of acres leased, or anything short of the full amount of the lease value would, therefore, not adequately address the violation of the Proposition A conditions of purchase, and would result in a Significant Unavoidable Proposition A Consistency Impact. The Revised DEIR needs to be corrected to properly explain the Proposition A requirements and consequences in Chapter 2 - Project Description, Section 4.11 – Land Use and Policy Consistency Analysis and the Executive Summary of the DEIR. (See also discussion in Sections 3.2 - Proposition A Offset – Fails to Identify the Amount or Nature of Prop A Compensation of this comment letter).

Since the City should be required to reimburse the full revenue stream from the proposed project, and any use of the revenue would be limited to Proposition A uses as specified in Section 16(a) of the authorizing statute under Proposition A, the City's objective of generating a substantial, long-term income stream for the City can not be met. This would also be true for the alternatives. The net result of the project and the alternatives would be the loss of public open space within the City and the transfer of the value of the 1,280 acres of open space to Proposition A uses somewhere else in the County. The Executive Summary, Chapter 2-Project Description, Section 4-11 – Land Use and Policy Consistency, and Chapter 6 – Comparison of Proposed Project and Alternatives of the EIR, need to include a discussion of this fact. The proposed project is therefore infeasible because it does not meet the City's objectives.

Furthermore, as detailed in Open Space Legal Defense Fund v. City of Whittier et al., use of land purchased with public funds for non-open space and habitat uses would be a violation of the Public Trust Doctrine which would also be a Significant Unavoidable Land Use Policy Impact of the project as proposed.

The fact that neither the project nor any of the alternatives meet the City's objectives is yet another reason why the City should terminate the Lease Agreement.

2.1.3 The City's Public Works Director Has Expressed Concern Over the Feasibility Of the Landfill Access Road And It's Identification As The Environmentally Preferred Access Road

EXHIBIT O contains an email (obtained via FOIA) from David Pelser, Director of Public Works for the City of Whittier to the City Manager, Steve Helvey, dated December 22, 2010 commenting on an email dated December 19, 2010 from Michael and Valorie Shatynski regarding "Penn Street Issues" with the Whittier Oil Project and Environmentally Superior Alternative in the Original DEIR. The reference email is also included in **EXHIBIT O**. In that email, the City's Director of Public Works states:

> I tend to agree with their sentiments about the landfill access road for the Matrix project. Ever since this was first proposed by the EIR consultant I have expressed concerns about it and I was surprised when they identified this access as the environmentally preferred alternative access for reasons

similar to those that are outlined in the email below (biological impacts, environmental justice issues, impacts to residents and traffic on Penn, etc). My similar comments have mostly been verbal in the project meetings we have held for months now. In addition to the issues raised below, I also think the EIR consultant has consistently underestimated the complexity and seriousness of both engineering and regulatory challenges associated with putting the oil access road through the permitted landfill. I have shared these concerns with the EIR consultant and with Matrix consultants in great detail over a number of months. The EIR consultants have generally dismissed these concerns and proceeded anyway. The comments below indicate precisely where the DEIR is vulnerable to criticism in these areas. OSLDF2-49

The plans for this roadway contained in Appendix A of the Revised DEIR note they are conceptual drawing only and not for construction and include the following notation:

NOTE:

1. ACCESS ROAD GRADING AND RETAINING WALLS SHOWN ON THESE PLANS ARE CONCEPTUAL AND WILL REQUIRE DETAILED DESIGN AND CONSTRUCTION PLANS. ACCESS ROAD MUST BE REVIEWD AND EVALUATED FOR SOIL AND SLOPE STABILITY BY THE GEOTECHNICAL ENGINEER AND THEIR RECOMMENDATIONS IMPLEMENTED ON FINAL ACCESS ROAD DESIGN AND PLANS.
2. DRAINAGE FOR PROPOSED ACCESS ROAD WILL BE PROVIDED BY CONSTRUCTION OF SWALES, CONC. TRENCH DRAINS, CMP INLETS & PIPES, AND RIP-RAP OUTLETS. CONCEPTUAL DRAINAGE DESIGN WILL BE PROVIDED ON A SEPARATE EXHIBIT.
3. CONSTRUCTION OF THE ACCESS ROAD WILL REQUIRE ADDITIONAL STABILIZATION PER GEOTECHNICAL ENGINEER RECOMMENDATIONS.

The conceptual drainage design is not included in Appendix A of the Revised DEIR. It thus appears that additional geotechnical review and potentially testing, as well as additional design work is required. The Revised DEIR does not fully address the design issues associated with this roadway. The Revised DEIR does not address the "regulatory challenges associated with putting the oil access road through the permitted landfill." There is therefore the potential that this alternative is infeasible. In addition, since the full design of the roadway is unknown, the Revised DEIR underestimates the potential impacts of this roadway.

Perhaps more troubling is the documentation that the EIR consultants "have generally dismissed these concerns and proceeded anyway." It appears that not only have comments from the public and responsible agencies been dismissed in the preparation of the environmental documents, but the Lead Agencies comments have also been dismissed. This needs to be brought to the attention of the City's decision-makers.

We hereby request responses to all of the comments contained in **EXHIBIT O**.

2.2 THE APPLICANT SUBMITTED AN INCOMPLETE CUP APPLICATION – THE PROJECT DESCRIPTION IN THE REVISED DEIR IS SIMILARLY INCOMPLETE

EXHIBIT P to this comment letter contains the City's requirements for a CUP application or Development Review Application. Open Space Legal Defense Fund obtained a copy of Matrix's CUP submittal from the City. It appears from the information provided to OSLDF and provided in the Revised DEIR, that Matrix's CUP application did not include the following required information:

- ☐ Required Findings (missing)
- ☐ Site Photographs (missing)
- ☐ Site Plan (incomplete)
  - ☐ Structure dimensions and floor areas
  - ☐ Dimensioned driveway widths (include curb cuts)
  - ☐ Parking configuration (including the "temporary parking" areas)
  - ☐ Walls and fences, existing and proposed (include height)
  - ☐ Ground-mounted equipment and screening
  - ☐ Exterior lighting
  - ☐ Signs
  - ☐ Net lot area
  - ☐ Number of stories for each structure
  - ☐ Parking spaces required, existing and proposed
  - ☐ Area of landscaping (call out separately for parking area)

- ☐ Floor Plan (missing)
- ☐ Elevation Drawings (missing) must include:

OSLDF2-50

A. Dimensioned drawings of all relevant elevations
B. Sections through areas of grade differentials
C. Dimensioned building height
D. Proposed signs (wall, projecting and freestanding)
E. All architectural details intended for final construction, including wall-mounted lighting
F. Front elevations of immediately adjacent structures
G. Landscaping with approximately three years of growth
H. Must be drawn to show final grading
I. Roof pitch

- ☐ Roof Plan (missing)
- ☐ Landscape Plan (missing)

Elevations are particularly important to an understanding to the height of tanks and other equipment and the finished grade, including slopes. Without this information an independent review of the aesthetic impacts of the proposed project is difficult. More detailed information about the roadway design and location of cut, fill and retaining walls is also needed.

2.3 FAILURE TO ADEQUATELY DESCRIBE PROJECT FEATURES OR PHASES – FEATURES NOT SHOWN ON PROJECT PLANS OR ADEQUATELY DESCRIBED

In addition to describing and analyzing an infeasible project, the analysis in the DEIR is inadequate because it does not fully address the following project features.

2.3.1 Project Site

Although the Revised DEIR acknowledges on page 2-2 that: "(t)he proposed Project Site is a subset of the Preserve in the southeastern area, defined by a set of parcels owned by the City (see Figure 2-2)," Revised DEIR is fatally flawed because it fails to address impacts to the full project site: the 1,280 acres leased. OSLDF2-51

2.3.2 Key Project Features Are Hidden in Mitigation Measures and Thus Not Adequately Analyzed in the Revised DEIR

Key project features are hidden in mitigation measures and thus not adequately described or analyzed in the Revised DEIR. A number of the mitigation measures contain project features and/or could result in greater impacts than described in the Revised DEIR. Example of these types of mitigation measures include, but are not limited to:

> BIO-4n Recreational access to the Arroyo San Miguel Trail shall be closed during construction or drilling activities at the Drill Pad Site. To continue providing recreation access to the Arroyo San Miguel Trails (on the east side of Colima Road), the Applicant shall develop additional recreational access, in coordination with the Habitat Authority, to the Arroyo San Miguel Trail by any of the following or equivalent: (1) enhancing the parking area on the east side of Colima Road; (2) developing the parking area along La Flore Drive, approximately 1 mile east of Colima Road; or (3) develop pedestrian access along Colima Road from the Preserve parking area (on the west side of Colima Road) utilizing the new signalized intersection.

N-1c. Relocate the construction parking and staging area farther from the school and residences on Catalina Avenue to an area north of the Ranger Residence or equivalent.

N-2a . . .(1) enclose the drill rig area in soundproof barriers 30 feet high on the south and west sides; (2) utilize a central generator type drilling rig, with the generators the only diesel engines onsite and enclosed in a soundproofed generator house with appropriate grade muffler systems, or install sound enclosures around all diesel engines with appropriate grade muffler systems; (3)install noise barriers around the drill rig floor, mud mixers, cleaners, conveyers, and shakers; (4) enclose drawworks brake area with soundproofing shroud; (5) install pads on V-door and other appropriate areas, timbers and pads on drill deck, pads between drill and casing pipe while in storage, and pad and timbers at the boards on the mast to reduce metal-on-metal noise (for both drilling and workover operations); (6) enclose the drilling mast boards area (on drilling and workover rigs) with barriers 2 inches thick and 2 pounds per square foot in density at least 5 feet above and below any noise sources; and (7) install ambient sensitive backup indicators on all equipment requiring backup indicators.

N-4 The Applicant shall develop and implement a Noise Reduction Plan for all operations to ensure that Leq noise levels from operational activities, measured as 1-hour Leq, produce less than a 3 dBA increase over the minimum baseline hourly average level at the closest residential receptor to the facility. The measures in the Plan shall *include, but not be limited to*: (1) installing sound enclosures or buildings around all compressors; (2) installing noise barriers around all pumps and air coolers; . . .(4) installing sound enclosures or buildings around all the oil area pumps (e.g., shipping, IGFC, water injection, water booster, reject pumps); (5) installing sound enclosures or buildings around refrigeration units; (6) installing a secondary, 16-foot tall sound wall on the south, west and north sides of the gas plant; . . . OSLDF2-52

N-2b . . .(3) minimizing crane use and pipe handling operations, pipe offloading from trucks and board loading during daytime *to the maximum extent feasible* and nighttime loading only for safety reasons; (4) prohibiting material and supply deliveries to the Project Site between the hours of 7 p.m. and 7 a.m., *with exceptions* only for safety; and (5) limiting process alarms and communications over the broadcast system *to the maximum extent feasible* during all operations and use only for safety reasons.

AE-1a.. . . . Berms shall be used in combination with landscaping where it would further reduce visibility. Care should be taken to ensure that the

proposed screening does not affect existing desirable views by neighboring properties. . .

BIO-4b . . . After initial installation of Project lighting, a biological monitor acceptable to the City and Habitat Authority shall conduct a field inspection to confirm that the proper lamps have been installed and that light spillage into the Preserve has been minimized *to the maximum extent feasible* without compromising safety or other critical night-lighting requirements.

BIO-4c. . . . All nighttime traffic shall be minimized during the construction and operational phases as feasible; . . .

SR-3 The Applicant shall conduct site assessments of the Project Site before commencing Project construction and shall sample soils and excavated materials associated with construction to ensure that the soils are not contaminated. *Contaminated soils* shall be completely excavated and the contaminated areas cleaned to LARWQCB specifications before moving forward with construction of the proposed Project components.

GR1-c All conceptual geotechnical recommendations provided by Heathcote Geotechnical (2011) shall be followed during grading and construction at the Project Site. In addition, a Registered Civil Engineer and Certified Engineering Geologist shall perform an updated geotechnical evaluation of the Project Site, as the proposed building pad and slope configuration has changed since completion of the geotechnical report completed in 2010 (Heathcote Geotechnical 2011). This report shall be completed prior to completion of the final project design and shall be submitted to the City of Whittier for review and approval and any new recommendations not included in the Heathcote Geotechnical (2011) report shall be adhered to. The project design must conform to the recommendations within the updated geotechnical evaluation.

GR-1d All proposed slope construction, roadways, and work pads shall be properly engineered, with fill placed in accordance with California Building Code and Los Angeles County requirements.

GR-5a. Temporary shoring shall be designed to protect the temporary excavations, structures to remain in place, and adjacent properties. This shoring shall be designed by a State of California Registered Civil Engineer to take into account all lateral load parameters. Shoring above groundwater levels can range from steel cage to timber supports to sheet piling, soil nailing or shotcrete walls or as otherwise approved by the City Engineer.

GR-5b. Implement slot cut excavation schemes during grading and foundation excavations to the extent possible to reduce the potential for failure along temporary cuts by limiting the area exposed by temporary cuts.

T-1d Implement safety and access improvements, including: (1) During Phase 1, provide a wider turning radius at the northeast corner of Catalina Avenue to improve right turn movements; (2) Prohibit parking on the east side of Catalina Avenue north of Mar Vista Street to provide additional capacity for trucks during Phase 1, according to city engineer recommendations;

WR-1a A registered civil engineer experienced in drainage shall prepare a hydrologic study, using the corresponding hydraulic calculations for interception, conveyance, and discharge of runoff. Based on these studies, the engineer shall prepare a drainage plan in accordance with City and County requirements.

WR-1b A registered civil engineer experienced in drainage shall design and implement onsite detention facilities to reduce runoff to existing levels. Onsite detention ponds would attenuate the runoff intensity, such that an excessive peak flow would not occur during high intensity storms and there would be no increase in runoff intensity over existing conditions. The project engineer shall conduct an onsite hydrologic study to determine the approximate increase in storm runoff to accurately scale any onsite detention facilities.

T-1d Implement safety and access improvements, including: (1) During Phase 1, provide a wider turning radius at the northeast corner of Catalina Avenue to improve right turn movements; (2) Prohibit parking on the east side of Catalina Avenue north of Mar Vista Street to provide additional capacity for trucks during Phase 1, according to city engineer recommendations; . . .

FP-1a The oil field operator shall provide fire water supplies from either the Murphy Station 10-inch line or Suburban Water Supply along Colima Road (both of which are nearby and have sufficient supplies), or some other source, that provides sufficient water supply rates and duration to comply with codes and the LACoFD. Any new pipeline installations shall avoid any sensitive habitats (coastal sage scrub or riparian) and will be placed in non-native grassland or disturbed communities. Any non-native grassland in which new pipeline installations are placed shall be returned to its original state after pipeline installation.

The impacts of these mitigation measures have not been adequately addressed in the Revised DEIR.

2.3.3 Additional Geological Testing

Based on the information discussed in Section 2.1.3 of this comment letter, it appears that additional geological testing may be required as part of construction design of the Landfill Access Road. Geological testing has the potential to result in environmental impacts, particularly when conducted in Core and Critical Habitat in occupied gnatcatcher habitat. Potential impacts associated with any additional testing need to be address in the Revised DEIR. OSLDF2-53

2.3.4 Project Wells

Revised DEIR indicates that wells would be drilled to a vertical depth of between 3,000 and 10,000 feet and Revised DEIR indicates the general locations (i.e. well cellars) from which the wells would be drilled. The DEIR also indicates that slant drilling will be used. However, the DEIR lacks any description of where, subsurface, the wells would be located and how the 20 wells per cellar would branch out within the 1,280 leased area. In the absence of such a description and the ability to compare the subsurface location of wells with geological conditions, including faulting in the area, the potential for Significant Unavoidable seismic safety and hazards Impacts remains. OSLDF2-54

2.3.5 Detention Basins

The DEIR fails to identify the location or size of the detention basins. Mitigation Measure WR-1a and 1b indicates that a drainage plan has yet to be prepared for the proposed phase 1 project and the detention basins have yet to be designed, sized or located. These mitigation measures are clear examples of improperly deferred mitigation. The lack of information regarding the location and design of the basins also results in improperly deferred analysis of the phase 1 project's potential hydrology impacts and impacts to the riparian habitat and stream. OSLDF2-55

2.3.6 Mud Pits and Wastewater Storage

The DEIR states that as a byproduct of drilling operations, a liquid slurry of drilling "mud" would be collected onsite within bermed basins that are protected by impermeable membranes" and that "approximately 1,800 barrels of this mud would be collected for each well drilled." See also DEIR page 2-35 and 2-36. The DEIR fails to identify the location and size of these bermed basins. OSLDF2-56

DEIR indicates that all wastewater generated during construction would be stored onsite within bermed basins, protected by an impermeable membrane. The DEIR fails to identify the location and size of these bermed basins.

2.3.7 Roadway Design

The DEIR should include the roadway profile and a description of roadway grade. The location of all shoring, retaining walls, turnouts, the double-box culvert and pipe-bridge across the creek and roadway grade should be provided in the project description. The description of the new primary and secondary access roads fails to provide adequate information about the width of the roadway, required fuel modification, the amount and location of cut and fill, and the limits of grading. All of this information needs to be clearly included in the project description and the potential impacts of all site access needs to be addressed in the DEIR. OSLDF2-57

2.3.8 Limits of Grading

The project plans fail to clearly indicate the limits of grading for all phases and all components of the project. The Revised DEIR needs to clearly show all grading and landform modifications included in either the proposed project or required for mitigation purposes.

The Revised DEIR includes a Geotechnical Report, in Appendix L that is essentially for the Amended CUP version of the project, rather than the Revised DEIR's proposed project. Page L-70 of the Geotechnical Report includes a site plan. (There are some minor differences from the Amended CUP version of the site plan in terms of the location of uses such as parking and the office on the pad). What is important about the **Figure on Page L-70** of the Geotechnical Report (See **Figure 7**), however, is the fact that it shows far more extensive landform modification, to address geotechnical hazards, than was shown on the site plan for this version of the proposed project that was included in Matrix's Amended CUP application. A comparison of **Figure 5** in this comment letter with the figure from the Geotechnical Report on the following page clearly shows substantial additional landform modification, beyond what is disclosed in the Amended CUP application provided on the City's website. OSLDF2-58

According to the Geotechnical Report for the Amended CUP application (at page L-13): "Review of the aerial photographs indicates that, overall, the topography is prone to surficial failure due to the friable nature of the Fernando Formation which forms the slopes within the entire project site." "The slopes around the project are not surficially stable in general. Surficial failures are seen in abundance. Some stabilization of slopes is recommended." (at page L-18) "The slopes to the east of the well pads are required to be rebuilt regardless of whether or not retaining walls are utilized." (at page L-21).

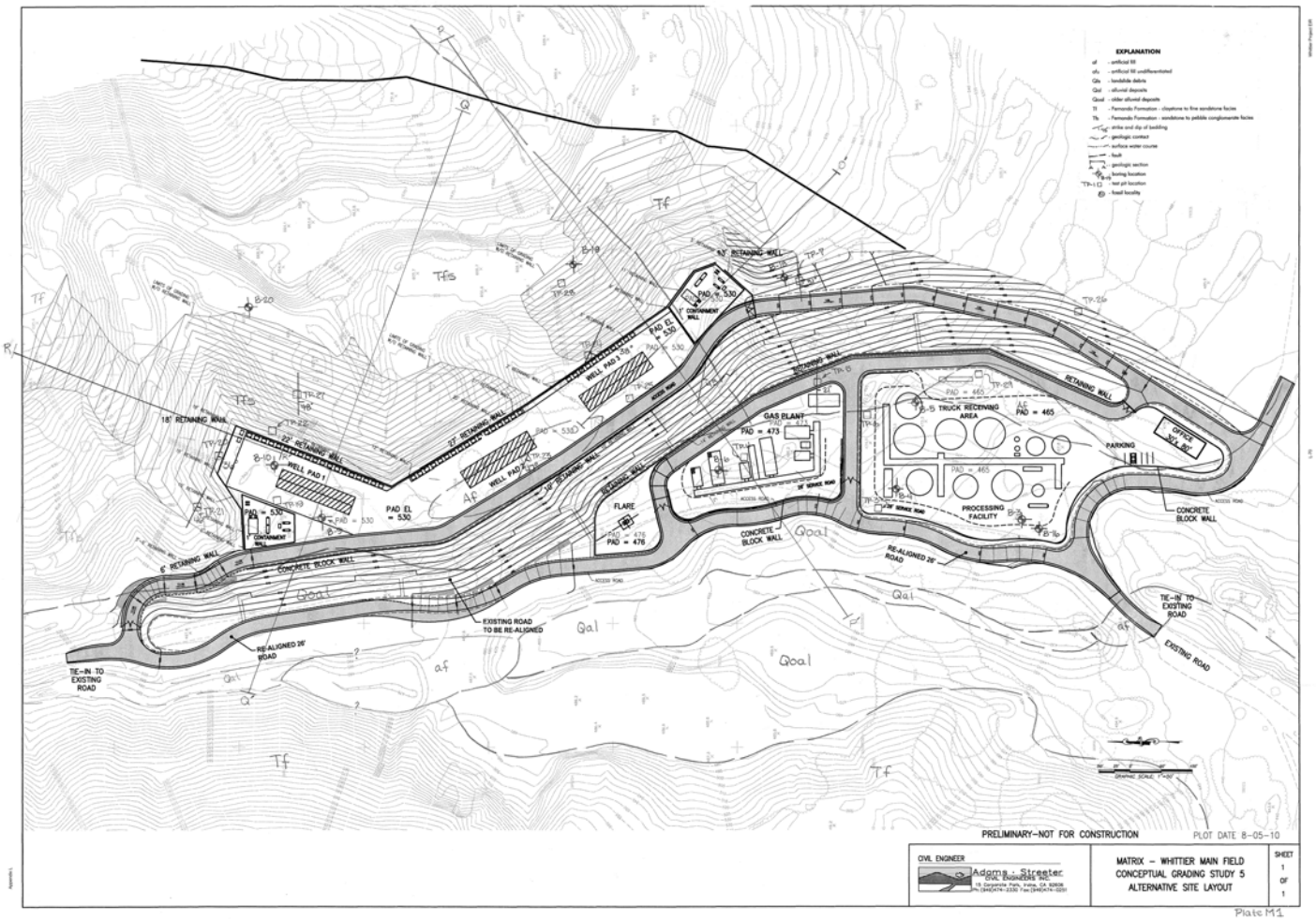


FIGURE 7:
SITE PLAN FROM GEOTECHNICAL REPORT SHOWING SUBSTANTIAL REMEDIAL GRADING BEYOND THAT SHOWN IN MATRIX'S THE AMENDED CUP APPLICATION

The description for the version of the proposed project analyzed in the Revised DEIR needs to disclose the full amount of landform modification associated with the proposed project, included any grading required to address geological hazards. Since a Geotechnical Report for the project as proposed in the Revised DEIR has not been provided, and no Geotechnical Report has been prepared for the Landfill Access Road, given the statements in the existing Geotechnical Report, is appears likely that the proposed project, like the Amended CUP application version of the project, will result in landform modification which is more extensive than disclosed in the Revised DEIR. The impacts of the proposed project are thus likely to be understated. The Revised DEIR needs to disclose the full extent of all landform modification associated with the proposed project and address the impacts of all mitigation measures required for the proposed project.

2.3.9 Fuel Modification

The project plans need to clearly show fuel modification consistent with the requirements included in the RMP for the Preserve, State law, or by the Fire Department, which ever is greater. The location and area of each FMZ needs to be clearly identified for all phases and all components of the project. OSLDF2-59

2.3.10 Equipment Storage and Parking

The DEIR needs to list the number and types of vehicles anticipated to be parked on site, as well as any other equipment to be stored on site, for each phase of the project, and to provide project plans which show the areas where construction, maintenance and worker vehicles will be parked and equipment will be stored for each phase of the project. Mitigation Measure N-1c requires that the parking area be moved. The parking area analyzed in the Revised DEIR (including the biological resources section) is not the same as the parking area with Mitigation Measure N-1c. The impact judgments in the Revised DEIR are thus based on an inaccurate project description. OSLDF2-60

2.3.11 Streambed Alteration

The project roadway is now located on the edge of the bank of the stream channel and riparian area. The Revised DEIR needs to clearly identify all streambed/bank alterations that will be done as part of the phase one project. The location of any new rip/rap and grading in this area needs to be clearly identified in the project description. This is not addressed in any geotechnical report for the project, the drainage plan remains to be crafted, no wetlands delineation has been conducted, and it does not appear that the Army Corps of Engineers has been consulted during the drafting of the Revised DEIR. The project thus clearly has the potential for significant unmitigated impacts to Waters of the United States. OSLDF2-61

2.3.12 Well Abandonment and Restoration

The DEIR ignores, and the project description fails to address a key phase of the project: the conclusion. The DEIR must address and analyze all phases of the project, including the adequacy of well abandonment and restoration plans. The DEIR fails to do this. OSLDF2-62

2.3.13 Transmission Pipeline

The DEIR fails to describe the full oil and gas distribution system for the oil and gas to be produced under the Lease Agreement, and the first phase of the project as proposed, including the size, age, total and remaining capacity, and routing to final destination. OSLDF2-63

2.3.14 Odor Minimization Plan and Air Monitoring Plan

Mitigation Measure AQ-3c requires preparation of an Odor Minimization Plan and Measure AQ-3d requires preparation of an Air Monitoring Plan. Both plans should have been provided in the DEIR to allow the public and reviewing agencies to comment on the adequacy of the plans. In the absence of public/agency review of the plans, their efficacy in reducing impacts can not be assessed and the potential for unmitigated air quality and odor impacts remains. An Odor Minimization Plan and an Air Monitoring Plan must be prepared and included in an appendix to the DEIR, and the DEIR must be recirculated for review and public comment. Failure to do so is a violation of CEQA. OSLDF2-64

2.3.15 Ranger Residence

The DEIR needs to indicate if the existing residence would remain or if a new residence would be constructed within the Habitat Preserve and to analyze any impacts associated with the new residence or retention of the existing residence. OSLDF2-65

2.3.16 Noise Reduction Plan and Noise Reduction Measures

Mitigation Measures N-2a and N-4. As written, even before proper analysis, require installing a 30-foot tall sound barrier on the on the south and west sides of the drill rig area and a secondary 16-foot tall sound wall on the south, west and north sides of the gas processing. These measures need to be included on the project plans, evaluated for feasibility in a geotechnical report specific to the proposed project, as mitigated, and considered in the calculation of the area of impact and phase 1 project impacts. OSLDF2-66

2.3.17 Potential Early Landfill Closure

The Revised DEIR fails to identify or analyze the potential early closure of the Savage Canyon Landfill due to the Matrix Oil project and associated assess road. In the December 22, 2010 email from the City's Director of Public Works, David Pelser, to the City Manager, Steve Helvey, included in **EXHIBIT O**, Mr. Pelser states:

While this is still speculative, I think there is a good chance the oil revenues will far outpace any economic value of the landfill to the City. If this is actually the case, it may be economically appropriate to consider reducing landfill operations or even early landfill closure if necessary to get the Matrix project approved. OSLDF2-67

This issue needs to be address for both the proposed project and any alternatives.

2.3.18 Habitat Conservation Plan

According to Mitigation Measure Bio-1d an Incidental Take Permit is required for the proposed project. An Incidental Take Permit requires a Habitat Conservation Plan (HCP) and public review period. The project description is inadequate because it does not include a Habitat Conservation Plan. This is another example of improperly deferred mitigation. A HCP must be prepared and included in an appendix to the Revised DEIR and the Revised DEIR recirculated for review and public comment. Failure to do so is a violation of CEQA. OSLDF2-68

2.3.19 Inconsistency Information Regarding the Number of Acres Impacted By The Proposed Project

There are inconsistencies in the information provided regarding the number of acres to be impacted by the proposed project. Differences in the numbers provided in the Executive Summary, Project Description, Appendix A and the Biological Resources section of the Revised DEIR need to be reconciled and the reader provided with a clear explanation of the full extent to the "temporary" and permanent impacts of the proposed project. OSLDF2-69

2.4 PAGE-BY-PAGE COMMENTS ON CHAPTER 2 – PROJECT DESCRIPTION

This section of out comment letter provides page-by-page comments or questions on the Revised DEIR:

Page 2-1: Was the Revised DEIR sent to the Wildlife Corridor Conservation Authority for comment? OSLDF2-70

The Revised DEIR needs to provide more information on the history of the project parcels, including the fact that they were acquired by the City of Whittier in 1995 and that they have been part of an actively managed Habitat Preserve for more than 15 years. OSLDF2-71

Page 2-1: Third paragraph. The Revised DEIR should indicate whether the oil rights were also purchased with Prop A funds. OSLDF2-72

Page 2-1: Fourth paragraph. The Lease Agreement and Amendment need to be included in an appendix to the Revised DEIR. The Revised DEIR needs to disclose that no environmental review was conducted prior to issuance of the Lease Agreement. OSLDF2-73

	The Revised DEIR needs to discuss the fact that the Lease Agreement provides for additional CUP applications for additional drilling sites and later phases of the project. Since this CUP application is the first of a number of potential CUP applications under the lease agreement, the term "project' when referring the this CUP application should be replaced with "first phase project" throughout the Revised DEIR. The Revised DEIR needs to detail the limitations contained in the Lease Agreement for the first CUP application and the fact that the proposed project is not consistent with those limitations. This paragraph states that the project would generate a substantial long-term income stream for the preservation and enhancement of the Preserves ecological resources and native habitat. The project description needs to cite these provisions in the Lease Agreement and the specific amount that is to be provided to the Habitat Preserve.	OSLDF2-74
Page 2-2	First line. Any reference to the proposed project as the Environmentally Superior Alternative from the October 2010 Draft DEIR needs to be removed from the Revised DEIR. The Revised DEIR instead needs to detail the differences between the proposed project and the "Environmentally Superior Alternative" from the Original DEIR. See Section 1.11 of this comment letter.	OSLDF2-75
Page 2-2	City Objectives. Councilman Henderson has publically stated (KPCC AirTalk Radio 89.3 on April 6, 2011 at minute 2:06 available at: http://www.whittierhillsoilwatch.org/radio.php) that all of the Council has taken a pledge that if drilling can't be done "safely and without damage to the Preserve it will not be done." This pledge should be reflected in the project objectives. No damage to the Preserve is different than "minimizing environmental impacts from the Project on the Preserve." It is unclear what "minimizing means." This objective should be changed to state "no damage to the Preserve." In fact, in all of the objectives "minimizing" should be changed to "less than significant" or "no impact."	OSLDF2-76
Page 2-3	Matrix Objectives: The first objective involves development pursuant to the terms of the Lease Agreement dated October 28, 2008. The analysis should disclose that under the October 28, 2008 Lease the applicant had until October 28, 2011 to obtain all required approvals and begin the test drilling. Clearly the applicant will not comply with this schedule and the analysis should identify a violation of this objective.	OSLDF2-77
Page 2-4	This section of the project description needs to identify the amount of Whittier Oil Field production since 1989 and also the annual amounts of Matrix's oil and gas production from the Whittier Field by year. This is important to an understanding of cumulative impacts. This discussion should include the number of wells Matrix currently has at its two facilities and should identify any new wells Matrix has drilled since 1989.	OSLDF2-78
Page 2-8	Similarly Figure 2-4 needs to go to 2011 and include Matrix's pumping activity.	OSLDF2-79

Page 2-9	First full paragraph. This paragraph should indicate if both the surface and mineral rights were purchased with Prop A funds.	OSLDF2-80
Page 2-9	Last paragraph of Section 2.2.1 – Again, the Revised DEIR needs to include more information on the provisions of the Lease Agreement and the Lease Agreement needs to be included in an Appendix.	OSLDF2-81
Page 2-10	Section 2.2.2 – Specify the amount to be provided to the Preserve under the Lease Agreement. This amount needs to be specified only once in the Revised DEIR and any additional references to the payment should be deleted from the Revised DEIR, which has a tendency to refer to this payment as a way of justifying the proposed project. The Revised DEIR should be an impartial analysis and not an advocacy document.	OSLDF2-82
	Last paragraph – clearly state the total acreage included in the Preserve. A table of acreage by ownership would also be helpful. Section 2.2.2 should also disclose that the Habitat Authority has an adopted Resource Management Plan. This section of the Revised DEIR should also disclose the total amount of public funds expended to purchase land included in the Preserve.	OSLDF2-83
Page 2-12	This section of the Revised DEIR should include an additional section describing the Wildlife Corridor Conservation Authority and it's mission and the fact that the Habitat Preserve is part of a larger Wildlife Corridor. A Figure showing the larger Wildlife Corridor and the location of the 1,290-acre project site within the Wildlife Corridor should be provided. The new section of the Revised DEIR should also disclose the total amount of public funds expended to purchase land included within the Wildlife Corridor.	OSLDF2-84
Page 2-12	The Revised DEIR should clearly indicate the length of each of the proposed project phases and the days and hours of operation of each of the phases and sub-phases. A table with this information would be helpful, as it is difficult to find this information for each phase and sub-phase.	OSLDF2-85
	The Revised DEIR needs to fully address the final phase of the first phase and full project – shutdown and restoration. Even if plans for this phase aren't available, the Revised DEIR needs to provide standards for adequate cleanup and remediation and demonstrate that adequate mitigation or other requirements exist for this phase. Otherwise the potential for significant unmitigated impacts remains.	OSLDF2-86
	Section 2.3 – third paragraph – the statement that the Project Site is 6.9 acres is not consistent with the fact that the Project Site is the full 1,290 acres. In the interest of full disclosure this should be referred to as the first phase project site. Also, just counting the area within the fence-line underestimates the full first	OSLDF2-87

phase project site that includes terracing, fuel modification, grading and drainage facilities outside the fenced area. The Revised DEIR needs to provide an honest analysis of the site area.

Page 2-13 The project acreage is discussed in a way that doesn't reconcile with the acreage figures in the site plans in Appendix A or the Table 4.3-4. Also, the site plans in Appendix A need to clearly show the FMZs. The FMZ areas are part of the first phase project site. Page 2-13 says that "up to 8.5 additional acres may be temporarily disturbed for construction and grading of the site including areas disturbed for parking and staging of construction equipment. These 8.5 acres would be revegetated after construction is complete." Please define "after construction is complete." After how many months, or years? OSLDF2-88

Page 2-15 Figure 2-7 does not show the full first phase project site plan. We previously and again request site plans for each phase of the project, including parking areas. Where for example will the equipment for the 52 well workovers per year be parked/stored? This is not shown on the project plans. Based on our observations of behavior at Matrix's Sycamore Canyon facility, as shown in the **photograph on the following page**, the Revised DEIR must include a mitigation measure requiring revegetation of these areas by a date certain and a prohibition on parking or storage of equipment outside of the fenced area after a date certain, if on-going impacts are to be avoided. OSLDF2-89

Page 2-18 Table 2-3: Please define road areas. It would be helpful to provide a separate tabulation for each roadway – i.e. for Colima, the Landfill Road and the Loop Road. Re Pad Areas – terracing with retaining walls and drainage swale isn't a temporarily disturbed area. Unless this area retains its original landform, it's a revegetated area. The Revised DEIR also needs to include a table which details the amount of cut, fill, and soil export for each of the project components, including pipelines, utilities and roadways. OSLDF2-90

The second paragraph should indicate how long Catalina Avenue will be used as access (i.e how long for oil transport and if it will be used for soil export). The capacity and size of the oil pipeline should be specified. OSLDF2-91

Paragraph 3 – please provide information on the capacity and current use of the Crimson California Pipeline System. This is important to an assessment of whether the system has sufficient capacity to serve the first phase project. Similarly capacity and current use for the SCGC lines and City of Whittier pipeline system should also be provided. It does not appear from Chapter 10 that the operators of these distribution pipelines were consulted during the preparation of the Revised DEIR. Where the operators of the oil and gas transmission pipelines that the project will tie-into sent a copy of the Revised DEIR for review OSLDF2-92

FIGURE 8:
MATRIX'S PARKING AND STORAGE OF EQUIPMENT OUTSIDE OF PAD AREA AT SYCAMORE CANYON FACILITY

and comment during the public comment period? Was information on the capacity of these facilities and the amount of capacity currently being used obtained as part of the preparation of the Revised DEIR?

Page 2-19 The first full paragraph indicates that during the Design and Construction Phase a natural gas pipeline would be constructed aboveground next to the Narth Access Road. How long will this pipeline remain in place? More detailed information about the design of this pipeline needs to be provided since it travels through important occupied gnatcatcher habitat. OSLDF2-93

Table 2-4 should also indicate distances from pipelines and roadways. Table 2-4 should also include distance from the Ranger residence, if the residence is retained. OSLDF2-94

Page 2-19 Section 2.3.1 describes site access during the drilling and testing phase. What about during the construction phase? Will the Landfill Access Road be completed prior to any first phase facility grading and construction? OSLDF2-95

Page 2-20 Please separately itemize the amount of cut, fill and soil export associated with the construction of the North Access Road. Would any of this construction be taking place at the same time as the first phase facility's grading and construction? Given that the North Access Road passes through important habitat, the Project Description should clearly identify all widening, FMZ's, stream crossings, drainage facilities, and retaining wall, etc. construction associated with this roadway. The plans provided in Appendix A are too small to allow for an independent assessment of North Access Road impacts. Will the North Access Road be paved or remain unpaved? What is the area of disturbance associated with this roadway? OSLDF2-96

Catalina Avenue – Please clearly indicate the amount of cut, fill and soil export associated with this roadway. How many cubic yards of asphalt will also be removed? OSLDF2-97

Please separately indicate the area impacted by each roadway (see prior comment re Table 2-3). The biological resources along each roadway are different, so separate itemization is important. OSLDF2-98

Would the Loop Trail Road be paved or remain unpaved? The Revised DEIR needs to analyze the impacts of this access. OSLDF2-99

Paragraph 4 states that the landfill limits access to a maximum of 350 cubic yards of landfill material per day. This is incorrect; the permitted maximum disposal is 350 tons per day (see **EXHIBIT Q**). This is important because earth/soil typically weights about 1.35 US tons per cubic yard or 1.227 metric tons per cubic yard. So, this affects the amount of exported soil that can be disposed of at the Savage

Canyon Landfill. Also, the Revised DEIR needs to clarify that this limit is for the landfill as a whole, not a per user limitation. The Revised DEIR needs to identify where the additional soil/construction waste will be disposed of, and the assumptions in the traffic, air quality, and noise analyses need to be consistent with likely transport activity. If the soil will be stored somewhere either on or off-site, the Revised DEIR needs to specify the storage location and any dust or other air emissions which might result from transport, storage and handling of the soil needs to be addressed in the Revised DEIR. The Revised DEIR needs to specify the landfill's hours of operations and indicate whether trips on this roadway will be limited to the landfill's hours of operations, or if not, how access will be provided given the landfill is gated outside of its normal business hours of 7:30 AM – 3:00 PM Monday through Saturday. OSLDF2-100

When listing vehicle trips, please always specify whether the numbers provided are round-trip or one-way. For example, are the 259 trips per day to the landfill 259 round-trips or one-way trips (i.e. 518 one-way trips)? OSLDF2-101

What are the total number of cubic yards of dirt from the Whittier Area Community Church Project that were transported to the landfill? OSLDF2-102

Page 2-21 In Section 2.3.2 please indicate what facilities are in place at the start and end of the drilling and test phase, including wall, buildings, retaining walls, etc. Are the test wells drilled with well cellars in place or just on a dirt pad? If berms, mud pits etc. are not in place to protect the nearby stream from contamination this needs to be disclosed and analyzed in the Revised DEIR. What are the days and hours of site preparation and facility construction for this phase? OSLDF2-103

What is the size of the parking and staging area? How long will it be used.? How many vehicles and of what type can it accommodate? Is this a paved or unpaved area? If unpaved, the potential dust impacts of use of this parking/staging area must be addressed in the air quality analysis. OSLDF2-104

Page 2-22 Paragraph 1, what portion of the project site would be cleared and leveled to accommodate the drilling equipment.? What is the amount of cut, fill and soil export associated with this activity? Where would dirt be stockpiled? How long would the dirt be stockpiled on-site? Please provide a site plan for this phase of the activities. What is the estimated quality of brush and debris to be removed? OSLDF2-105

The Revised DEIR needs to provide a separate analysis of the potential impacts of this phase as part of the analysis of each of the potential impact categories addressed in Chapter 4. OSLDF2-106

What is the specific nature of the Catalina Avenue improvements that would be constructed during this phase? OSLDF2-107

	What is the area that will be disturbed by installation of utilities and utility poles? Please provide more detail about the screening, temporary fencing and soundproofing which would be provided as part of this phase and each of the sub-activities associated with this phase.	OSLDF2-108
Page 2-23	Section 2.3.2 continued. Please indicate the location of any booster pumps that may be installed. Please indicate the location of where drilling mud would be stored. Please provide more information of DOGGR decommission and abandonment requirements. What are the remediation/restoration plans should it be determined that wells in this location would not produce the level of production that Matrix deems is economically viable? Failure to address this results in the potential for significant unmitigated landform and habitat impacts which are not addressed in the Revised DEIR.	OSLDF2-109
Page 2-24	How many gallons can the 58-foot tanker trucks hold? Where would the temporary tanks be located? (Again, need a site plan for this phase). How many barrels per day of oil and water would be produced during this phase? How many temporary tanks would be required?	OSLDF2-110
	Table 2-5 needs to provide information on all trips during the drilling and testing phase including for soil export, roadway construction, workers, etc.	OSLDF2-111
Page 2-25	Section 2.3.2.2 – Please indicate the hour and days of the week for all activities associated with this phase.	OSLDF2-112
	Section 2.3.3 states: "all roads used within the Preserve would be paved during the Design and Construction Phase." Does this include the Landfill Access Road, Catalina Access and the Loop Road? How much asphalt of paving material will be imported and where will it be stored? This section say that construction of the North Access Road will require 5,000 yards of cut and fill. Please specify how much cut, how much fill and how much soil export/import. This section of the Revised DEIR needs to provide detailed plans of the North Access Road, including the location and height of all retaining walls, the existing unpaved roadways acreage, the total acreage of the paved roadway, etc. How long will the roadway improvements take? What are the hours for this phase?	OSLDF2-113
Page 2-26	Section 2.3.3.2 – the acreage given in the first paragraph is not consistent with the acreage numbers provided in Appendix A. Where will the temporary water tank be located? This needs to be shown on a site plan for this phase of the project. This section needs to include a site plan showing the location of each of the described facilities. Elevations for the completed facilities need to be provided.	OSLDF2-114
	What are the hours and days of the week for site construction activities?	OSLDF2-115

Page 2-27	Section 2.3.3.2 continued. What route will be used to take soil to the Savage Canyon Landfill? It has been stated previously that the North Access Road is 2.5 miles not 2 miles.	OSLDF2-116
	This section states that if the Savage Canyon Landfill can not accommodate the soil because of contamination, it will be taken to the Kettleman City Landfill. The Revised DEIR needs to state the distance and routing from the first phase project site to the Kettleman City Landfill. This landfill is located in between Bakersfield and Fresno. The air quality analysis needs to address the potential air quality impacts associated with hauling soil to this facility.	OSLDF2-117
	It has been previously stated that the daily capacity of Savage Canyon Landfill is 350 tons per day. The amount of soil to be exported would exceed the daily capacity of the landfill. (149,000 cubic yards = 24,833.33 cubic yards per month = 962.53 cubic yards per day, six days a week). How many cubic yards per day can be accommodated at the Savage Canyon Landfill given the amount of tonnage of waste per day currently being accepted at the landfill and the tonnage represented by 962.53 cubic yards per day? Where will this excess soil be taken? It should be noted that the County of Los Angeles currently is in need of a disposal location for soil and debris removed from its distension basins. The air quality analysis needs to address the air quality impacts associated with hauling the excess soil to this other facility. The Revised DEIR needs to address the impacts to landfills associated with the proposed project.	OSLDF2-118
	Section 2.3.3.3 and 2.3.3.4 – Please provide the days and hours of these construction activities. How much cut, fill and soil export is associated with these elements of the construction.	OSLDF2-119
Page 2-28	Figure 2-11 where are the representative pictures of the drilling rig?	OSLDF2-120
Page 2-29 – Page 2-31	What are the days and hours and duration of pipeline construction by pipeline segment? What are the psig of the line that the new lines would tie into? Again, what is the existing capacity of the existing lines, how much of the capacity is currently being used and how much is available along the full transmission system for project oil and gas? Are any roadway closures anticipated as part of pipeline or roadway construction? Where will the "construction spread" be staged from? How much asphalt will be removed and where will it be disposed of?	OSLDF2-121
	The Revised DEIR needs to include analysis of this phase of the project in each section of Chapter 4. Will this same "construction spread" be used on the Loop Road? If so, failure to include a noise analysis of the impact of this construction activity renders the Revised DEIR legally inadequate.	OSLDF2-122
	Would any piping be stored on-site? If so, where and for how long?	OSLDF2-123

	Please also discuss the construction of the pipeline along the Loop Trail.	OSLDF2-124
Page 2-34	Where will the construction waste be disposed of? It is unlikely that the Habitat Authority would want shredded green waste due to the inability to control seed materials. According to Savage Canyon Landfill's website, the Landfill does not take green waste. (See http://www.cityofwhittier.org/depts/pw/water/landfill.asp So, the Revised DEIR needs to specify the disposal location and provide an estimate of the amount of material to be exported from the site. Hauling of this material needs to be addressed in the air quality analysis.	OSLDF2-125
	How much concrete and other materials will be imported onto the site. Where will this material be stored and for how long?	OSLDF2-126
Page 2-35	Drilling waste. This section indicates that 660 cy of drill cuttings would be generated from each well. The Revised DEIR needs to specify the total amount of drill cuttings requiring disposal over the life of this phase of the project (660 cy * 60 wells = 39,600 cy of material requiring disposal in addition to project greenwaste, exported soil, and other construction waste. The Revised DEIR should include a table summarizing the about of material which would be exported from the site over the life of this first phase of activities under the Lease Agreement.	OSLDF2-127
Page 2-36	Will all of the equipment listed in Table 2-7 be stored on-site? Please provide a site plan for the staging area showing that the vehicles, equipment and materials that will be stage there can be accommodated in the parking/staging area. Without this information the potential exists for storage in other parts of the Preserve and associated impacts.	OSLDF2-128
Page 2-36	Please also list the construction transportation routes timeframes on Figure 2-13 – Project Schedule as you have with the Crude Transportation Routes.	OSLDF2-129
Page 2-40	Mud Handling Program – where would the material described in this section be disposed of? Please specify the number of truck trips per well for each of the types of waste discussed on pages 2-40 to 2-41.	OSLDF2-130
Page 2-41	What is the drilling site containment that will be provided for the test wells? Will drilling take place year-round – i.e. will drilling take place during the winter/rainy season?	OSLDF2-131
Page 2-44	The Revised DEIR should include a site plan which shows the location of all lighting to be provided on site, consistent with CUP application requirements.	OSLDF2-132
Page 2-45	Where will the drilling materials listed in Tables 2-10 and 2-11 be stored?	OSLDF2-133

Page 3-49	The Revised DEIR needs to include a site plan which show the location of each of the tanks and vessels listed in Table 2-12, as well as the wash tanks, etc.	OSLDF2-134
Page 3-50	What is the height of a concrete retaining wall that is sufficient to retain 110 percent of the volume of the largest tank. The Revised DEIR needs to include a failure analysis for all tanks.	OSLDF2-135
	The document indicates that there would be a filtered water tank with a capacity of 7,892 barrels. This should also provide the information in gallons (i.e. approximately 331,464 gallons). This is a large tank. Where will it be located and what are its dimensions?	OSLDF2-136
	What is the size and capacity of the distension basin?	OSLDF2-137
Page 2-52	Operation Phase – how many employees would be on site would be present at any time. The project site plan in Appendix A shows only five parking sites. Please specify the location of all parking and equipment storage during operation. It does not appear that adequate parking is provided at the Central Site. This would result in on-going use of the parking/staging areas and permanent impacts in those areas.	OSLDF2-138
Page 2-53	If is difficult to tell from Table 2-13 the number of trips that will be occurring concurrently.	OSLDF2-139
Page 2-54	Project Life and Decommissioning – Since decommission requirements are not specified and no standards for reclamation of the site are provided, the Revised DEIR must identify significant long-term impacts on the Habitat Preserve from the phase 1 project.	OSLDF2-140

3 THE DEIR FAILS TO DESCRIBE OR ANALYZE THE WHOLE OF THE ACTION

As discussed in our prior comments on the Original DEIR, CEQA Guidelines Section 15126 requires that: "All phases of a project must be considered when evaluating the impact on the environment: planning, acquisition, development and operation." PRC Section 21159.27 prohibits the piecemealing of a project. CEQA Guidelines Section 15165 requires that:

15165. MULTIPLE AND PHASED PROJECTS

Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168. Where an individual project is a necessary precedent for action on a larger project, or commits the Lead Agency to a larger project, with significant environmental effect, an EIR must address itself to the scope of the larger project. Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect.

Note: Authority cited: Section 21083, Public Resources Code; Reference: Sections 21061, 21100, and 21151, Public Resources Code; *Whitman v. Board of Supervisors*, (1979) 88 Cal. App. 3d 397.

CEQA Guidelines Section 15168 defines a Program EIR and explains its advantages and uses with latter stages of the project. Section 15168 states in part:

15168. PROGRAM EIR

(a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

(1) Geographically,

(2) A logical parts in the chain of contemplated actions,

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

(4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

In addition, the courts have repeatedly held that the practice of breaking a larger project into components – thereby "piecemealing" or "segmenting" – in order to avoid analyzing it as whole is unacceptable.

OSLDF2-141

The Lease Agreement is an oil, gas and mineral lease. The DEIR fails to address the other minerals that might be produced under the oil, gas and mineral lease. The Lease grants Matrix Oil Corporation and Clayton Williams Energy, Inc., "exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land." All potential activities need to be addressed in the DEIR.

The Lease Agreement states that the Lease Agreement is for "1,280 acres of land more or less" (**see EXHIBIT G**). Although the Revised DEIR now acknowledges on page 2-2 that:

> The proposed Project Site is a subset of the Preserve in the southeastern area, defined by a set of parcels owned by the City (see Figure 2-2). The portion of the Preserve within the City of Whittier is zoned Open Space.

The DEIR continues to fail to consider the whole of the more or less 1,280 acre project site and the impacts of the Lease Agreement as a whole.

The Lease Agreement provides for both additional wells, beyond what is analyzed in the Revised DEIR, and piecemealing of the permitting process for drilling within the 1,280 acre project site. The DEIR fails to analyze more than just the first phase of a lengthy and larger project as detailed in Section 3.1 of this letter. In addition, the DEIR fails to specify the nature or use of any revenues obtained from the leased land by the City and/or County, or to analyze the potential environmental impacts of the use of such revenues as detailed in Section 3.2 of this letter. The DEIR is thus fatally flawed.

3.1 FUTURE CONDITIONAL USE PERMITS (CUPS)

Section 4.2 of the Lease Agreement reproduced below both provides for and encourages future drilling activity within the 1,280 leased acres. Section 4.2 of the Lease Agreement thus encourages future drilling activity by providing for a contract of unspecified duration which requires the quitclaim of lands not located in a Well Tract upon which there is a well that is producing or is capable of producing, once the "continuous development program" has terminated. The Lease thus encourages a "continuous development program" and continuous production from wells. In order to maintain a "continuous development program" Section 4.2 specifies that within 180 days after the completion or abandonment of a well, another well must be drilled.

Section 4.2 of the Lease Agreement provides for the drilling of an unlimited number of wells, stating: "Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled." It should be noted that although the Revised DEIR assumes for purposes of analysis the drilling of 60 wells, the Revised DEIR provides no mitigation measure, nor does it identify any Condition of Approval, which would limit the number of wells drilled at the drill sites and production support sites addressed in this Revised DEIR for what is clearly the first phase of the project.

4.2. **Continuous Operations**. If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at any one time, the continuous development obligation shall not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production. OSLDF2-142

Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled.

Given the City's history of failing to conduct required CEQA review for the discretionary approvals required for this project, and the Lease terms which do not specify that a discretionary approval is required for additional drilling at the sites addressed in this DEIR, it is unlikely that additional environmental review would be conducted should Matrix choose to drill additional wells on the drill sites addressed in the Revised DEIR. The Revised DEIR thus fails to either identify or analyze the full potential for drilling on the sites addressed in this DEIR.

Not only does the Lease Agreement provide for and encourage additional drilling within the 1,280 acre project site, Section 6.6 of the Lease Agreement mandates a piecemealed permitting process for future drilling sites within the 1,280 project site. Section 6.6 of the Lease Agreement which is reproduced below allows for additional drilling sites within the 1,280 acre project site and additional phases of the project, with separate Conditional Use Permits:

> 6.6 **Request for Additional Sites**. In the event that Lessee has drilled six wells on the Leased Lands, then Lessee shall have the right to request from Lessor one or more additional drillsites, subject to Lessee applying for and obtaining a Conditional Use Permit therefor and obtaining a release of any such additional sites from protected area status from the Los Angeles County Proposition A District. Lessor may in its sole discretion and for any reason deny or grant Lessee the right to construct any such additional site.

Since issuance of a Conditional Use Permit is a discretionary action requiring environmental review it would appear that the City envisions a series of environmental documents for different phases of the drilling program. The Lease Agreement thus clearly sets up a piecemealed planning and permitting process, and piecemealed environmental review of drilling within the 1,280 acre project site. This is a clear violation of CEQA.

3.2 FAILS TO IDENTIFY THE AMOUNT OR NATURE OF PROP A COMPENSATION

Since obtaining a release from protected area status from the Los Angeles County Proposition A District is a precondition for approval of the various Conditional Use Permits for the project envisioned in the Lease Agreement (see Exhibit G, Paragraph 6.6 reproduced above), the Project Description for this action is incomplete without a description of the Proposition A District's requirements for any such release, and an analysis of the environmental consequences of any physical changes in the environment which would be the consequences of the conditions of such a release. OSLDF2-143

3.3 FAILS TO IDENTIFY THE LOCATION OR FEASIBILITY OF COMPENSATION ACREAGE

The project description contained in the Revised DEIR is incomplete because it fails to identify the location of any compensation acreage required for either biological resource mitigation or Proposition A mitigation, or to show that such compensation acreage is available. This is a clear example of improperly deferred mitigation for a significant Proposition A impact, which is both a significant land use and land use policy impact, and for biological resource OSLDF2-144

impacts. In addition, given that the Lease Agreement is for the full "1,280 acres more or less" any mitigation compensation within the 1,280 acres would be inappropriate.

3.4 FAILS TO ADDRESS ACTIONS SUBJECT TO THE NATIONAL ENVIRONMENTAL POLICY ACT

The proposed project will require an Incidental Take Permit under the Endangered Species Act per Mitigation BIO-1d. An application for an Incidental Take Permit requires preparation of a Biological Assessment and Habitat Conservation Plan (HCP), a 30-day public comment period on the Incidental Take Permit application and associated HCP. In addition, in issuing an Incidental Take Permit, the U.S. Fish and Wildlife Service must comply with the National Environmental Policy Act (NEPA) and other statutory and regulatory requirements, including any state or local environmental/planning laws such as CEQA.

The DEIR is legally inadequate because it fails to provide the public and reviewing and responsible agencies with the opportunity to review and comment on the HCP and Incidental Take Permit application as part of first phase project review, thereby further segmenting CEQA review of the project. OSLDF2-145

Furthermore, CEQA Guidelines Section 15221 states that if the required NEPA document would not be prepared by the federal agency by the time the Lead Agency will need to consider an EIR, the Lead Agency should try to prepare a combined EIR-EIS. Guidelines Section 15226 states that local agencies should cooperate with federal agencies to the fullest extent possible to reduce duplication between CEQA and NEPA. The City should have prepared a combined EIR/EIS for the proposed project and included full analysis and description of the HCP and Incidental Take Permit application.

4 INADEQUATE CUMULATIVE PROJECTS LIST

The cumulative projects list contained in the DEIR is inadequate and incomplete. Section 3.0 of the DEIR indicates that Section 3 contains a description of "other reasonably foreseeable projects that have not bee included in the environmental setting." CEQA Guidelines Section 15355 defines a cumulative impact in terms of "other closely related past, present and reasonably foreseeable probable future projects." The list of cumulative projects contained in the DEIR is thus improperly constrained to future projects. Key projects missing from the cumulative projects list include all drilling conducted within the Whittier Oil field since approximately 2001, including the new wells drilled and planned to be drilled by Matrix Oil at its other sites in the area. (See Section 1 of this letter). These project are not described adequately in the Revised DEIR and have not been included in the environmental setting. OSLDF2-146

Section 3.0 of the DEIR also indicates that the "cumulative impact study area includes the immediate vicinity surrounding the Project Site and the proposed crude and gas pipelines in the City and the unincorporated Los Angeles County community of South Whittier (see Figure 2-8)." DEIR Figure 2-8 shows only the area extending approximately 2 miles south of the Project OSLDF2-147

Site as defined in the DEIR. Given that the true project site included in the Lease Agreement is 1,280 acres, the DEIR has inappropriately constrained the cumulative projects area. In addition, the DEIR fails to address any other projects that may make use of the larger gas and oil pipeline system that the project's oil and gas transmission pipelines will tie into. As a result, the DEIR does not properly address impacts to the existing oil and gas transmission system.

The proposed project includes impacts to designated Critical Habitat. The cumulative projects list must also include any projects with the potential to impact Critical Habitat units affected by the proposed project and the first phase of the project included in the Conditional Use Permit application. OSLDF2-148

The proposed project would impact the larger Wildlife Corridor. The Revised DEIR must include any and all projects with the potential to impact the larger Wildlife Corridor Authority territory. The cumulative impact analysis needs to address all projects which would potentially impact the Wildlife Corridor including: the 91 Freeway Expansion, Canyon Crest, MWD Road, Olinda Landfill, Pacific Heights and Shell-Aera. OSLDF2-149

Section 3.2.1.3 – second paragraph. This paragraph is unclear. If Matrix is the current operator of the site, are any operations taking place? The following statement is too vague as written: "the site is not a feasible place to economically drill targets to the Whittier Project Site because the targets are too shallow (2,000 to 3,000 feet); and contractually Matrix cannot assume Sempra will allow drilling to reach target within the Whittier Project Site." Please elaborate. We would commend the City of La Habra Heights for rejecting an incomplete application. It is too bad that the City of Whittier does not appear to follow this same practice. OSLDF2-150

Please include a map showing the location of each of the cumulative projects in relation to the proposed project, the Habitat Authority and the Wildlife Corridor Authority. OSLDF2-151

5 INADEQUATE IMPACTS ANALYSIS

The impact analysis for each of the issue areas contained in the Revised DEIR is fundamentally and basically inadequate because the DEIR fails to analyze:

The full project allowed under the Lease Agreement. It is clear that the Lease Agreement provides for future phases of the project as detailed in Section 3 of this letter. OSLDF2-152

The full area impacted by the proposed project described in the Revised DEIR as detailed in Section 2.1.2 of this letter. OSLDF2-153

The impact of all of the mitigation measures such as noise walls or additional grading required to address geological hazards. OSLDF2-154

The effect of the proposed actions described in the Revised DEIR on the full 1,280 acre project site. Similarly, the setting sections of each of the issue area analyses in the DEIR are inadequate because they fail to also describe the full 1,280 project site. OSLDF2-155

The effect of both the proposed project described in the Revised DEIR and the full project on the larger Habitat Preserve. OSLDF2-156

The effect of both the proposed project described in the Revised DEIR and the full project on the larger Wildlife Corridor. OSLDF2-157

5.1 RESULT OF PIECEMEALING IS AN UNDERESTIMATE OF PROJECT IMPACTS

OSLDF2-158

The net result of the piecemealing of the project and the analysis, and the failure to even describe the full extent of the first phase of the project, is an across-the-board underestimate of project impacts. The DEIR is thus fatally flawed.

5.2 FAILURE TO IDENTIFY AND/OR UNDERESTIMATE OF SIGNIFICANT PROJECT IMPACTS

All of the discussions of the project's potential impacts need to be redone to address both the full project and the full extent of the first phase of the project. All of the discussions need to be redone to address a more accurate description of the first phase project. All of the discussions need to be redone to include a cumulative impact analysis that includes an appropriate cumulative project list for the issue areas. In addition we have the following comments on each of the impact analyses contained in Chapter 4 of the Revised DEIR: OSLDF2-159

5.2.1 Air Quality

The following are page-specific comments on the Environmental Setting Section of the Air Quality Discussion.

Page 4.1-19 Section 4.1.1.4 provides information on existing operations that appears to have been added in response to comments. Please provide phone log data through 2010. Please provide a map showing the address of the complainant in relation to the location of the facility. Which of the odor mitigation measures included in the Revised DEIR were in place at Matrix's Honolulu Terrace facility during the period when complaints were received? OSLDF2-160

Page 4.1-19 Why did Matrix operate its flare more than 58 days per year in 2008 and 1010? How many days is this facility allowed to operate the flare per year? What is the like flare restriction at the proposed facility. What is the likelihood that the maximum days per year will also be exceeded at the new facility? OSLDF2-161

Table 4.1-6 demonstrates that Matrix has a history of violations at its two facilities. OSLDF2-162

The analysis of air quality impacts understates project emissions. This is due to calculation errors, the assumptions used, and failure to address all of the facets of the phase 1 project. The following are page-specific comments on the Impact Analysis. OSLDF2-163

Violate Any Air Quality Standard Or Contribute Substantially To An Existing Or Projected Air Quality Violation: Construction Emissions

Page 4.1-30 Impact AQ.1 should state the specific emissions thresholds exceeded. OSLDF2-164

Page 4.1-31 Table 4.1-9. It is unclear to the reader whether the significance thresholds are being separately applied to the different construction components (i.e. pad clearing, the north access road, facility construction and pipeline construction) or whether the emissions from the four components are being summed in reaching the impact conclusions, and conclusions regarding the level of significance after mitigation for construction impacts. Since a number of these components overlap, it would be inappropriate to apply the thresholds to each component separately. A total should be provided which shows the number being used in making the impact judgments. OSLDF2-165

I would be helpful if the narrative listed the key assumptions included in the calculation of the emissions shown in Table 4.1-9. It is difficult to reconstruct the assumptions from the information in Appendix B of the Revised DEIR. OSLDF2-166

The PM10 and PM2.5 values provided in Table 4.1-9 don't make sense. They appear to be more consistent with the tons per year, than pound per day likely to be generated by site grading and soil export. We have done a simple calculation of the air emissions from just grading and soil export using the URBEMIS 9.2.4 model. The model output is provided in **EXHIBIT R**. The model run is based on grading of 6.9 acres within the fenced pads, with a maximum daily-disturbed area of 1-acre, a six-month construction period, and total of 211,000 cubic yards of cut/fill and 149,000 cubic yards of soil export. The analysis assumed cut/fill and export six days a week over the six month period for a total of 1,363 cubic yards of cut/fill per day and 962 cubic yards of soil export per day. Despite the fact that soil export substantially exceeds the 350 tons per day maximum at the Savage Canyon Landfill, the analysis included in **EXHIBIT R** assumes that all of the soil would be taken to the Savage Canyon Landfill. The analysis is thus an underestimate of likely pad grading and associated soil export emissions. However, even so, the URBEMIS Model estimates 171.13 pounds/day of PM10 and 35.93 pound/day of PM2.5 from this element of the construction activity. This is dramatically more than the 15.9 pounds/day of PM10 and 4.4 of PM2.5 OSLDF2-167

shown in Table 4.1-9. There is clearly something wrong with the calculation of particulate emissions included in Table 4.1-9.

The analysis of construction air quality impacts does not appear fully account for likely construction-related truck trips and trip lengths. The analysis does not appear to address the removal of on-site vegetation associated with construction and construction-related activities such as the temporary parking area. Clearing activity and associated truck emissions needs to be included in the analysis. As shown in EXHIBIT Q, the Savage Canyon Landfill does not take greenwaste. The analysis needs to identify where this greenwaste would be taken, given the closure in 2013 of the La Puente Landfill. OSLDF2-168

As shown in EXHIBIT Q, the Savage Canyon Landfill does not take contaminated soils. The air quality analysis needs to address the likely need to truck drilling waste to the Kettleman City Landfill. This does not appear to have been accounted for in the air quality analysis. In addition, it is likely that some of the soil to be removed from the site is also contaminated and cannot be accommodated at the Savage Canyon Landfill. For example, the log of Boring B-6 in Appendix L shows black, oily soil in the 7-9 foot depth range. Given the site's history of oil drilling it is likely that some of the soil to be exported will be contaminated. (The landfill requires testing of soils to be disposed of at the landfill, with a minimum of 12 samples for the first 5,000 cubic yards plus one sample for each addition 1,000 cubic yards). The air quality analysis needs to address the likely need to truck some of the exported soil to the Kettleman City Landfill. Also, since the Savage Canyon Landfill accepts a maximum of 350 tons per day from all users combined, and the phase 1 project will generate approximately 962 cubic yards per day of soil export, just from pad grading, a large share of this dirt will likely need to be taken to another facility. The facility needs to be identified and the construction air quality analysis needs to be based on the likely truck trip lengths. Based on the information provided in Appendix B, it appears that the air quality analysis does not take account of likely truck trip lengths and thus underestimates project construction air quality impacts. Any conclusions regarding the level of significance after mitigation need to be revisited once the analysis is corrected and the assumption regarding numbers of trucks and truck trip length are clearly articulated to allow for independent analysis. OSLDF2-169

The second to the last paragraph at the bottom of page 4.1-31 states: "The emissions from construction activities would exceed those specified by the SCAQMD regional and local thresholds for both NOx and particulate emissions." While this is likely a true statement, it doesn't match the impact conclusions in Table 4.1-9, which does not show any exceedance of regional particulate thresholds. OSLDF2-170

The potential impacts of fugitive dust and soil stabilizers on the native habitat and wildlife need to be addressed in the biological resources analysis. OSLDF2-171

Neither the construction nor operational air quality impacts analyses appear to address emissions associated with trucking of oil/gas prior to completion of the pipelines. These truck trips need to be addressed in the analyses. OSLDF2-172

It does not appear that the analysis includes emissions from paint and coatings. Matrix's tanks and support facilities at its two other locations appear to be painted and Mitigation Measure AE-1b requires painting of the facility. Paint and coatings need to be included in the calculation of construction emissions. OSLDF2-173

This project is somewhat unique in the overlap between construction (well drilling) and operational activities. The SCAQMD needs to be consulted regarding how best to address this within the context of the air quality analysis. It does not appear that the air quality analysis has addressed the overlap of activities. OSLDF2-174

For the reasons outlined above, it appears that the Revised DEIR has understated the potential construction air quality emissions of the phase 1 project.

Violate Any Air Quality Standard Or Contribute Substantially To An Existing Or Projected Air Quality Violation: Operational Emissions

Page 4.1-35 Table 4.1-10. As with Table 4.1-9, it is unclear to the reader whether the significance thresholds are being separately applied to the different operational components or whether the emissions from the three components are being summed in reaching the impact conclusions, and conclusions regarding the level of significance after mitigation for construction impacts. Since a number of these components overlap, it would be inappropriate to apply the thresholds to each component separately. A total should be provided which shows the number being used in making the impact judgments. OSLDF2-175

I would be helpful if the narrative listed the key assumptions included in the calculation of the emissions shown in Table 4.1-9. It is difficult to reconstruct the assumptions from the information in Appendix B of the Revised DEIR. OSLDF2-176

Page 4.1-36 The Impact description should state the thresholds that are exceeded. The impact description for AQ-2 states that impacts are less than significant with mitigation, but this does not match the statements in the first paragraph under Residual Impacts on page 4.1-37 which appear to indicate that NOx emissions remain significant after mitigation. If emission credits are to be used to claim that NOx emissions are less than significant after mitigation, the Revised DEIR needs to provide a more detailed explanation of the credit program and likely credit costs. Similarly, if particulate emissions, as stated on page 4.1-37 "would remain greater OSLDF2-177

than the localized thresholds," then regardless of the health risk assessment, exceedance of the localized particulate threshold remains an operational impact of the phase 1 project.

Assuming that all of the operational components occur concurrently, the regional PM2.5 threshold would also be exceeded. OSLDF2-178

Create any Objectionable Odors Affecting A Substantial Number Of People

Page 4.1-38 It is not clear that the odor mitigations will solve the problem of odor impacts associated with accidental releases. The analysis identifies the potential for significant odor impacts from equipment or drilling upset conditions which have caused notices of violation at other oilfields. In addition, the analysis identifies the potential for significant odor impacts associated with accidental releases. Given that accidental releases are just that, accidental, the potential for significant unavoidable adverse odor impacts remains. Odor impacts must be identified as a Significant Unavoidable Adverse Impact in the DEIR. Please include of discussion of which of the mitigation measures on page 4.1-39 have been implemented at Matrix's other facilities and the results. OSLDF2-179

Page 4.1-39 As written, Mitigation Measures AQ-3c and AQ-3d are examples of improperly deferred mitigation. OSLDF2-180

Please address whether the flare system to be used for odor purposes would increase the operational emissions of the phase 1 project. OSLDF2-181

The DEIR includes 5 mitigation measures for odor impacts. Mitigation Measure AQ-3b includes reporting tank pressure exceedance incidents to the Los Angeles County Fire Chief along with corrective actions that the operator will take to avoid exceeding the tank relief pressure. This mitigation, which may reduce the potential for accidental odor releases over time, does not ensure that significant odor incidences can be avoided. OSLDF2-182

Mitigation Measure AQ-3c requires the preparation of an Odor Minimization Plan, including a protocol for handling odor complaints. The Odor Minimization Plan should have been included in an appendix to the DEIR and the effectiveness of the Plan analyzed in the DEIR. No standards for the Odor Minimization Plan are provided as part of the mitigation measure. Mitigation Measure AQ-3c constitutes improper deferral of mitigation. OSLDF2-183

Mitigation Measure AQ-3d similarly required the development of an Air Monitoring Plan. This Plan similarly should have been included in an appendix to the DEIR and analyzed for effectiveness in the DEIR. The mitigation requires that monitors shall be installed around the outer edge of the drill pad and around the outer edge of the gas plant and shall be triggered by the detection of hydrogen

sulfide or total hydrocarbon vapors. What about hexane and pentane? The measure indicates that alarm points shall be set at the maximum of 5 and 10 ppm for H2S and 500 to 1,000 ppm for hydrocarbons. Given that 20 ppm is the OSHA standard for H2S and the monitors are at the outer edge of the pad and gas plant, the DEIR needs to demonstrate that these monitoring locations are adequate for worker safety. Given the odor detection capabilities of humans for small amount of sulfur compounds or hydrocarbons as discussed on page 4.1-34 of the DEIR, the DEIR has not demonstrated that the mitigation measures will adequately reduce impacts to a level considered less than significant. OSLDF2-184

The odor analysis Original DEIR identified the fact that humans can detect the odor from sulfur compounds found in oil at concentrations from 0.5 parts per billion (ppb) and that 40 ppb would be detected by most people. The Original DEIR noted that hexane has an odor threshold of between 68 and 248 ppm and pentane has an odor threshold of 2 ppm. The discussion indicated that the OSHA allowable limit for occupational exposure to H2S is 20 ppm with a 50 ppm peak over 10 minutes and indicates that inhaling 100ppm of H2S can be lethal. OSLDF2-185

The Revised DEIR needs to address this, and also needs to indicate the concentrations that are considered harmful as well as lethal to wildlife and needs to address potential biological resource impacts associated with odors, given the project's location within a Habitat Preserve. OSLDF2-186

Page 4.1-40 Paragraph three under residual impacts discusses the importance of monitoring the tank relief system as part of odor control, however, it does not appear that there is a mitigation measure which addresses this. There is no demonstration that the mitigations are sufficient to reduce impacts to less than significant. OSLDF2-187

Climate Change

Page 4.1-41 The greenhouse gas analysis understates project impacts because it does not account for the loss of approximately 30 acres of vegetation and its carbon sequestration/oxygen production value. OSLDF2-188

Conflict With Or Obstruct Implementation Of The Applicable Air Quality Plan

Page 4.1-46 Consistency with the AQMP: The analysis of consistency with the Air Quality Management Plan is conclusionary and is not supported by facts. There are two criteria for determining consistency with the AQMP: Consistency Criterion No. 1: *The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP; and* Consistency Criterion No. 2: *The proposed project will not exceed the assumptions in the AQMP.* Given that the project site is currently open space, any employment generation and associated population growth is not accounted for in the AQMP. OSLDF2-189

Page 4.1-46 The following statement on page 4.1-46 regarding the impact of mitigation measures makes no sense and is self-contradictory:

> Some mitigation measures could increase construction requirements associated with the Project, which could increase construction-related emissions, including fuel modification requirements for fire protection (FP-1e), installing sound walls (N-2a), increased structural construction requirements (GR-3c, GR-3d, GR-4a, GR-4b, and GR-5b through GR-5d), modifications to some intersections related to traffic (T-1a and T-1b), and restoration of habitat areas (BIO-1a and BIO-2a). However, none of these mitigation measures would increase the peak day emissions or health risk emissions. Therefore, the mitigation measures would not result in additional impacts, and additional analysis or mitigation is not required.

OSLDF2-190

The Revised DEIR provides no evidence that: "none of these mitigation measures would increase the peak day emissions or health risk emissions." In fact the statement is contrary to common sense. The Revised DEIR needs to include analysis of the additional air emissions associated with the mitigation measures.

OSLDF2-191

Page 4.1-46 The following statements in paragraph 3 under Cumulative Impacts appear self-contradictory as written and supportive of a significant cumulative impact conclusion:

> However, modeling indicates that the Matrix City of La Habra Heights oil development project, assuming it would not include diesel particulate mitigation, and the proposed Project could together realize cumulative impacts, with the City of La Habra Heights project contributing up to four in one million cancer cases to the maximum receptor location. Nonetheless, this impact would be less than significant for toxic emissions.

OSLDF2-192

The Air Quality analysis fails to address all of the issues included on the CEQA checklist: First, the DEIR does not include an analysis of CO Hotspot impacts. Given the LOS levels and traffic impacts of the proposed project, the potential for significant CO Hotspot impacts exists and must be addressed in the DEIR.]

OSLDF2-193

Expose sensitive receptors to substantial pollutant concentrations: The proposed project is located in proximity to a school, recreational uses and a park. The DEIR must address the proposed project's potential to expose sensitive receptors to substantial pollutant concentrations.

OSLDF2-194

5.2.2 Biological Resources

There are a number of conclusions in this section of the Revised DEIR that defy credulity. For example, it defies basic common sense that a project, which the Revised DEIR acknowledges per Table 4.2-3 will impact acres (of which 9.45 acres are classed as disturbed) of: publically owned land purchased with taxpayer dollars to be held in trust as open space; which is critical habitat for the California gnatcatcher; and is located within a Habitat Preserve; which is in turn part of a larger Wildlife Corridor which is the subject of a joint powers agreement, will have no significant unmitigated biological resource impacts.

The conclusion that all biological resource impacts are mitigated to a level that is considered less than significant is even more absurd once one examines the mitigation measures included in the Revised DEIR. Although the Revised DEIR acknowledges that the proposed project will result in 40.44 acres of impacts, including 30.99 acres of impacts to key plant communities, the Revised DEIR provides for only 27.41 acres of total mitigation, as follows:

- Table 4.2-3 shows 4.16 acres of permanent impacts to Coastal Sage Scrub, 0.86 acres of "temporary" construction grading impacts and 5.49 acres of noise impacts for a total of 10.51 acres of impacts. Mitigation Measure Bio-1a provides for a total of only 17.97 acres of mitigation for impacts to coastal sage scrub habitat, stating:

  > *To mitigate the Project's permanent loss of 4.16 acres of coastal sage scrub, the Applicant shall provide minimum 3:1 areal replacement. To mitigate the loss of habitat value due to the Project's temporary noise impacts affecting 5.49 acres of coastal sage scrub, the Applicant shall provide minimum 1:1 areal replacement. In total, the Applicant shall restore 17.97 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero watersheds to coastal sage scrub communities, or as otherwise agreed to by the appropriate resource agencies and the City. (sic)*

  The "temporary" construction grading impacts are ignored in the wording of the mitigation measure. If not mitigated, how are these temporary?

OSLDF2-195

- Mitigation Measure Bio-1b provides:

  > *To prevent erosion and invasion by non-native weeds, and to help offset the Project's overall biological impacts, all graded slopes outside of permanent impact areas (approximately 8.03 acres) shall be revegetated exclusively with appropriate, locally indigenous plant species.*

  It is unclear what this 8.03 acres is, the plant communities represented, and where this acreage appears in Table 4.2-3. However, Mitigation Measure Bio-1b provides for 8.03 acres of non-specific revegetation.

OSLDF2-196

- Table 4.2-3 shows 0.22 acres of permanent impacts to riparian habitat, 0.03 acres of "temporary" construction grading impacts and 0.75 acres of noise impacts to riparian habitat, for a total of 1 acre of riparian impacts. Mitigation Measure Bio 2-a provides for a total of 1.41 acres of restoration of this important habitat type.

  To mitigate the Project's permanent loss of 0.22 acre of riparian habitat, the Applicant shall provide minimum 3:1 areal replacement. To mitigate the Project's temporary noise impacts affecting 0.75 acres of riparian habitat, the Applicant shall provide minimum 1:1 areal replacement. In total, the Applicant shall restore 1.41 acres of degraded areas within the La Cañada Verde and Arroyo Pescadero watersheds, or as otherwise agreed to by the appropriate resource agencies and the City. The 0.12 acre of temporary grading impact would be mitigated through the 1:1 revegetation specified in BIO-1.b. OSLDF2-197

In total, the three mitigation measures provide for only 27.41 acres of revegetation or habitat replacement for 40.44 acres of impacts, including 30.99 acres of impacts to key plant communities. Given the biological resource and conservation planning importance of the land being impacted, and the fact that typical mitigation applied for projects which are not located within a habitat preserve is usually 3:1 mitigation, it is clear that the proposed project results in significant unmitigated biological resource impacts. These impacts are even greater given that the area of disturbance may be even greater (see discussion under Geotechnical Resources) once a project-specific geotechnical study and all of the mitigation measures are considered (see Section 2.3.2 of this comment letter). OSLDF2-198

The Revised DEIR's failure to identify, the following significant unmitigated impacts, is both totally contrary to common sense and to any reasoned analysis. Clearly the proposed project will result in the following significant unmitigated impacts, which are not identified in the Revised DEIR:

Biological resource impacts to federally designated critical habitat for the California Gnatcatcher due to the disturbance of at least 30 acres of critical habitat and the introduction of on-going industrial activity within the Preserve. OSLDF2-199

Biological resource impacts to the federally threatened California gnatcatcher due to the location of the project facilities in an area where gnatcatchers have been observed and the use and expansion of a fire road located in close proximity to a known nesting area for this threatened species. OSLDF2-200

Biological resource impacts associated with impacts to an important regional wildlife movement corridor. OSLDF2-201

Biological resource impacts associated with the introduction of industrial activity in the restricted portion of a Habitat Preserve set-aside for nursery purposes. OSLDF2-202

Impacts due to the project's inconsistency with the City of Whittier's General Plan regarding Open Space. OSLDF2-203

Impacts due to the project's location within designated Core Habitat of a Habitat Preserve and the associated inconsistency with the Resource Management Plan (RMP) for the Habitat Preserve. OSLDF2-204

Impacts due to the project's inconsistency with the mission of the Wildlife Corridor Authority. OSLDF2-205

Impacts due to inconsistencies with the County's Environmentally Sensitive Habitat Area (ESHA) designation of the area and associate policies. OSLDF2-206

In addition, the Biological Resources section completely fails to address the following threshold of significance:

Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? OSLDF2-207

There is no evidence that wetlands delineation study has been conducted for the proposed project, or that the US Army Corps of Engineers has been consulted during the drafting of the Revised DEIR, despite the fact that the project plans in Appendix A indicated the placement of rip-rap and possibly also grading within the stream channel. The potential for wetland impacts remains significant and unmitigated. OSLDF2-208

Despite the fact that the project site is in Critical Habitat for the California gnatcatcher there is no evidence of consultation with either the USFWS or California Department of Fish and Game evident in the Biological Resources section of the Revised DEIR. In addition, comments from the California Department of Fish and Game on the Original DEIR appear to have been largely ignored. OSLDF2-209

The term "project site" is used inconsistently throughout the Revised DEIR and the Biological Resources section. It is difficult for the reader to be sure whether reference to the project site are to just the pad area, or include the roadways and pipeline routes. It is also difficult for the reader to ascertain the area included in the biological resource studies. A map showing the limits of the various studies should be included in the Revised DEIR. OSLDF2-210

Page or Threshold-Specific Comments

Page 4.2-1 The first paragraph states that the western half of the Project Site has been closed to the public since the cessation of oil exploration. The sentence should indicate when oil exploration ceased and when the area became actively managed as a Habitat Preserve. OSLDF2-211

Page 4.2-2	The first paragraph states that on December 14, 2009 there was a site visit to inspect the alignment of a proposed alternative access road that was not surveyed in 2008 and 2009. Which access road?	OSLDF2-212
	Documents listed on pages 4.2-2 to 4.2-3 should be available for public review at the City's Planning counter.	OSLDF2-213
Section 4.2.1	This section needs to explain why access to the western part of the site is restricted and provide a map of the restricted area. Based on information contained later in this section of the DEIR, it would appear the reason for the restriction is that the western part of the phase 1 project area is located within Core Habitat. This section also should state for the reader, in what part of the Preserve, the various components of the project are located.	OSLDF2-214
	Section 4.2.1.1 needs to clearly identify those plant communities, such as riparian habitat, coastal sage scrub and chaparral which are considered a sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS and thus the subject of the second threshold of significance. The current discussion fails to do this.	OSLDF2-215
Page 4.2-4	Under Coastal Sage Scrub: First paragraph – the reader should be provided with a map showing the location of Turnbull Canyon, Arroyo Pescadero, La Canada Verde, Arroyo San Miguel, etc. in relation to the location of the key project features. The second paragraph refers to: "Dominant shrubs characteristic of these communities on the Project Site." The definition of Project Site is unclear.	OSLDF2-216
Page 4.2-8	Please provide a map showing the area surveyed for sensitive species.	OSLDF2-217
Page 4.2-9	Please also define "project vicinity." As we previously commented, page 4.2-9 indicates that Plummer's mariposa lily, Catalina mariposa lily and Robinson's peppergrass were known from the nearby vicinity. From the text of the DEIR it is unclear the area addressed in the focused surveys. A map showing the areas addressed in the various focused surveys should be included in the body of the DEIR.	OSLDF2-218
Page 4.2-10	Similarly refers to the Project Site, adjacent areas and the local area, without any definition of these areas.	OSLDF2-220
Figure 4.2-3	Glen Lukos' July 26, 2010 report, included in Appendix C of the DEIR, indicates that in addition to the California gnatcatcher (Polioptila californica californica) two other special status riparian birds were detected during protocol surveys for the gnatcatcher and Least Bell's Vireo (Vireo bellii pusillus): a yellow-breasted chat (Icteria virens) and one yellow warbler (Dendroica petechia brewsteri) were detected in the northern portion of the survey area within La Cañada Verde and a second yellow warbler was detected north of the Arroyo Pescadero parking lot.	OSLDF2-221

The report also indicates a June 14, 2010 California gnatcatcher (gnatcatcher) sighting. Table 4.2-2 indicates that Cooper's hawk (Accipiter cooperi) was observed on the project site during surveys in 2008 and 2009. These sightings are not included on DEIR Figure 4.2-3; the Figure should thus be corrected to reflect these additional sightings. OSLDF2-222

Exhibit 3 of Mr. Lukos's July 26, 2010 report, also included important information on suitable habitat for the Gnatcatcher and Vireo which is important to an evaluation of roadway and which should be included in the body of the Revised DEIR and on Figure 4.2-3. In light of Exhibit 3, it is unclear why DEIR Table 4.2-2 fails to classify the potential for breeding on the Project Site as high. OSLDF2-223

As shown in Exhibit 3 from the Glen Lukos Associates report, the Central Site is located within the Most Suitable Habitat area for the gnatcatcher, as is part of the pipeline alignment. The impact of these portions of the phase 1 project (and alternatives) on habitat should be clearly explained in the Revised DEIR. We have provided a revised version of Figure 4.2-3, which provides some of this additional information and the pipeline route, by way of example. The additional information from Mr. Lukos's report should be added to this to provide a corrected version of Figure 4.2-3, and a more complete picture of the project's location within areas containing important biological resources. OSLDF2-224

Page 4.2-20 to 4.2-21

Noise Issues: All of the cited studies should be made available for public review in the Planning Department at city hall. OSLDF2-225

The discussion of noise issues and associated studies appears skewed towards discounting the impact of noise on birds and other wildlife. The discussion moves from a discussion of evidence of impacts, to studies that provide evidence of less noise impacts, and ignores a number of the cites studies that provide evidence of the impacts of noise. We previously commented on the fact that Edward W. West, et. al. have found, for example, that pile driving and blasting (100 dBA at 15 meters) can potentially cause temporary or permanent hearing impairment in birds, chronic intense noise such as an oil field compressor station may induce physiological stress in some species, and highway noise as low as 45 dBA can potentially mask acoustic communication and modify breeding and other behaviors in many species. (See Noise Impacts on Birds: Assessing Take of Endangered Species, J. Acoust. Soc. Am. Volume 122, Issue 5 pp3082). The geotechnical report for the project indicates the need for piles. Did the noise analysis include pile driving? OSLDF2-226

The discussion fails to reach any kind of conclusion or to inform a threshold of significance. As we previously commented the USFWS has established a 60 dBA threshold for analyzing impacts to gnatcatchers or take of this species. This information should be included in the discussion. OSLDF2-227

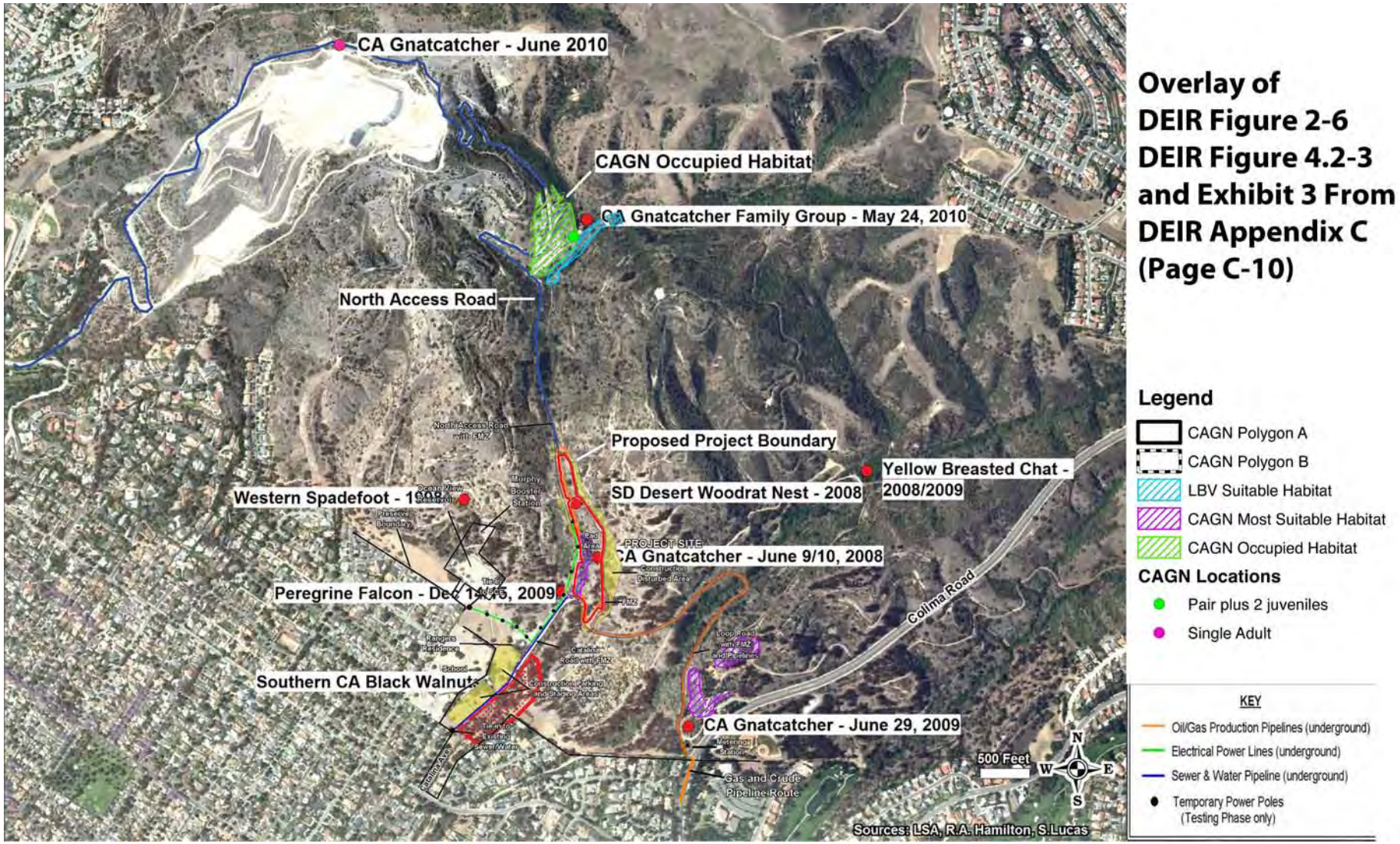


FIGURE 9:
EXAMPLE OF SOME OF THE ADDITIONAL INFORMATION THAT SHOULD BE ADDED TO FIGURE 4.2-3

The discussion quotes from an LSA study that stated "no adverse effects were observed during periods of noise levels higher than 60dBA Leq." How much higher than 60 dBA? OSLDF2-228

Page 4.2-22 This discussion needs to clearly distinguish between the Wildlife Corridor and the Habitat Preserve. In the second paragraph it states: "Increased development surrounding and within the Preserve has increasingly fragmented the area." What development has occurred within the Habitat Preserve? This sentence mistakenly creates the impression that development has occurred within the preserve, rather than within the larger Wildlife Corridor. OSLDF2-229

The Revised DEIR needs to discuss the significant investment of public funds that has been made to date to protect biological resources and open space in the Habitat Preserve and the Wildlife Corridor. OSLDF2-230

Regulatory Setting

Each of these discussion needs to include an explanation of the how the regulations relate to the proposed project. The biological resources section of the DEIR includes a discussion of the regulatory setting, including Federal regulations (in 4.2.2.1), State regulations (in 4.2.2.2) and local regulations (in 4.2.2.3). However, the biological resource section of the DEIR does not include any real analysis of the project's (phase 1 and full project) consistency with these regulations. OSLDF2-231

Page 4.2-28 Federal Endangered Species Act. This section also needs to discuss the purpose and import of land designated a Critical Habitat. As we previously commented, the Revised DEIR needs to provide more detail on the Critical Habitat Unit in which the proposed project would be located. The proposed project is located within Unit 9: East Los Angeles County-Matrix NCCP Subregion of Orange County, which is described in the Final Rule as follows:

> Unit 9 encompasses approximately 17,552 ac (7,103 ha) the majority of which is under private ownership within the Montebello Hills, Puente-Chino Hills, and West Coyote Hills areas. Core populations are known from the Montebello Hills, south slopes of the Puente-Chino Hills from Whittier east to Yorba Linda, and the East and West Coyote Hills. The Brea Canyon Landfill is not designated as critical habitat, but represents a significant potential restoration area to support these remaining populations and aid in recovery of the species. The unit also provides the primary connectivity between significant coastal California gnatcatcher populations and sage scrub habitat within the Orange County Central-Coastal NCCP (Unit 6), the Western Riverside County MSHCP (Unit 10) and the OSLDF2-232

Bonelli Regional Park population within East Los Angeles (Unit 12).

Habitat within this unit is being designated because it was occupied at the time of listing, is currently occupied, and contains all of the features essential to the conservation of the coastal California gnatcatcher (PCEs 1 and 2). Additionally, this unit provides for connectivity and genetic interchange among core populations and contains large blocks of high-quality habitat capable of supporting persistent populations of coastal California gnatcatchers. The PCEs contained within this unit may require special management considerations or protection to minimize impacts associated with habitat type conversion and degradation occurring in conjunction with urban and agricultural development.

As we previously commented, this description should be included in the DEIR. As noted in the description, this unit is important not only for the presence of gnatcatchers, but also for it connectivity with other units and role in genetic interchange among core populations. The DEIR should analyze the potential of the proposed project to interfere with these functions. OSLDF2-233

As we previously commented, the DEIR should include a map showing the portions of the leased parcels that are within designated Critical Habitat, and a map of the phase 1 project area and its relationship to Critical Habitat area. The Figure 10 on the following page, which overlays the Critical Habitat from the USFWS's critical habitat mapper (orange shading) on Figures 2-2 of the DEIR is provided by way of example. OSLDF2-234

As we previously commented, the discussion of the Federal Endangered Species Act on page 4.2-28 of the DEIR needs to provide the reader with more information regarding the requirements for obtaining an Incidental Take Permit, including the requirement for preparation of a Habitat Conservation Plan (HCP) and NEPA compliance. The discussion needs to explain that the proposed project would be subject to these requirements. It also needs to explain that Critical Habitat is defined in the Endangered Species Act as areas that are "essential" for the conservation of the species. This section of the Revised DEIR needs to discuss the requirements for the preparation of a Biological Opinion and consultation with the USFWS. The Revised DEIR needs to include an analysis of the project's consistency with this important habitat conservation regulation. OSLDF2-235

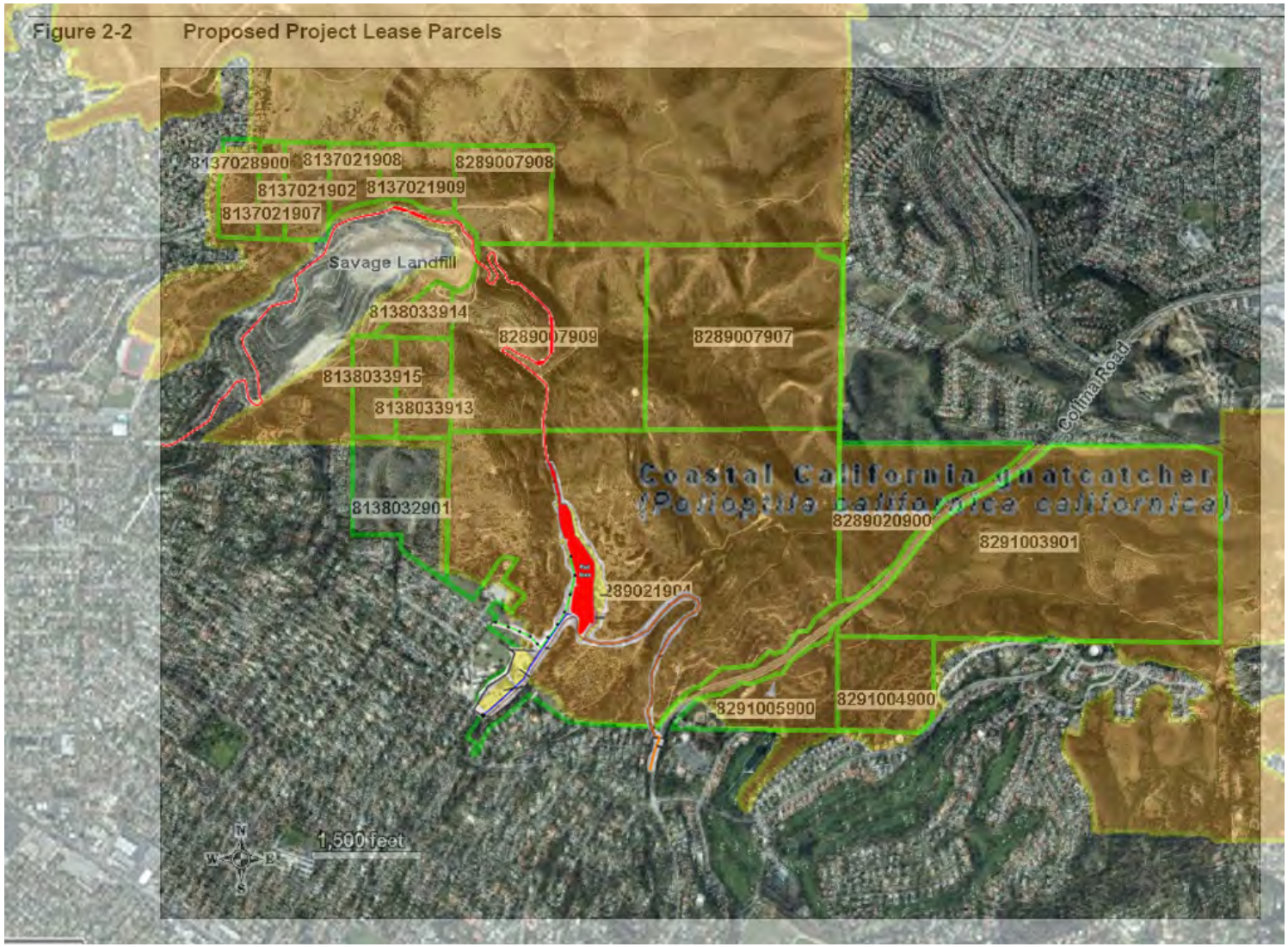


FIGURE 10:
LOCATION OF PROJECT PARCELS (Green lines) AND CRITICAL GNATCATHER HABITAT (Sepia Overlay)

Page 4.2-28	Sections 404 and 401 of the Clean Water Act of 1972 (33 United States Code 1251 et seq.) - Despite the project's proximity to several blue-line streams, and the fact that the project plans in Appendix A appear to indicate the placement of rip-rap, and potentially grading activity within the stream banks, the Revised DEIR fails to include any wetlands delineation or any analysis of the project's potential to impact Waters of the United States. This is a fatal flaw of the Revised DEIR. There is evidence in Appendix A which supports the conclusion that the proposed project would result in **significant unmitigated impacts** to Waters of the United States.	OSLDF2-236
Page 4.2-31 To 4.2-33	The proposed project clearly is inconsistent with a number of the City General Plan policies and Municipal Code requirements such as: Policy 3.1, Policy 3.2, Section 18.09.010, Section 18.09.020, Section 18.09.030. The discussion of Section 18.52.030 – Conditional Use Permits should also list the findings that must be met for issuance of a CUP.	OSLDF2-237
Page 4.2-34	The Revised DEIR should not continue to cite the funds that are to go to the Habitat Authority under the lease agreement as justification for the project. The proposed project is clearly inconsistent with the Mission Statement for the Habitat Authority and should be identified as such	OSLDF2-238
Page 4.2-35	The proposed project is clearly incompatible with Section 5.1.2 of the RMP and should be identified as such.	OSLDF2-239
Page 4.2-37	The Revised DEIR needs to provide a map showing the location of the La Canada Verde watershed and the Arroyo Pescadero watershed in relation to the Proposed Project.	OSLDF2-240
Page 4.2-38	The Revised DEIR should also include a discussion of applicable sections of the County of Los Angeles General Plan and associated regulations. In particular, the Revised DEIR needs to disclose that the proposed project is located within a County Environmentally Sensitive Habitat Area.	OSLDF2-241
Page 4.2-38	The biological resources section of the Revised DEIR fails to discuss the Wildlife Corridor Conservation Authority and it's mission. As stated in the Joint Powers Agreement for the Conservation Authority: > There exists a wildlife corridor comprised of undeveloped wildlife habitat and open space between the Whittier-Puente Hills and the Cleveland National Forest in the Santa Ana Mountains;	

This wildlife corridor serves wildlife migration and also functions as an essential environmental, scientific, educational, and recreational resource which should be held in trust for present and future generations;

That as the last major natural open space resource connecting Los Angeles, Orange, San Bernardino, and Riverside Counties, it provides essential relief from the urban environment;

OSLDF2-242

and that it exists as a single ecosystem in which changes that affect one part may also affect all other parts;

That the preservation and protection of this resource is in the public interest;

The purpose of this agreement is to provide for the proper planning, conservation, environmental protection and maintenance of the habitat and wildlife corridor between the Whittier-Puente Hills and the Cleveland National Forest in the Santa Ana Mountains.

Information on the Wildlife Corridor Conservation Authority needs to be included in the Revised DEIR and the Revised DEIR needs to include an analysis of the project's consistency with the Wildlife Corridor Conservation Authority.

Table 4.2-3 This table should include row totals. The acreage listed on the table for permanent FMZ modification is less than the 6.9 acres of FMZ cited on page ES-4 and in the project description. Where are the 8.5 additional acres the may be temporary disturbed for construction and grading the site, cited on page ES-4 in this table? Appendix A lists 5.3 acres of disturbed and revegetated acreage outside the fenced area of the pads. Table 4.2-3 only lists 4.77 acres (FMZ pad plus construction grading outside pad). The Revised DEIR is thus inconsistent regarding acreage of impacts. In addition, Table 4.2-3 fails to capture the acreage impacted by mitigation measures such as BIO-4n and BIO-1c. The impact area thus appears understated in the Revised DEIR. OSLDF2-243

Threshold 1: Substantial adverse effects, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFG or USFWS

Page 4.2-44 The first paragraph states that: "two individual gnatcatchers and one family group have been observed within the Project Area boundaries during protocol surveys conducted in coastal sage scrub and riparian scrub on the Project Site." This understates the presence of gnatcatchers. Based on the information contained on Figure 4.2-3 and Appendix C, there was a single adult gnatcatcher sighting in June of 2010 along the Landfill Access Road. A family group (pair plus two

juveniles) was also observed in May 2010 in the vicinity of the Landfill Access Road. According to the Lukos Report:

> A single California gnatcatcher (sex unknown) vocalized once in response to tape playback on May 3, 2010. The response consisted of a single low-pitched mew and was barely audible. The gnatcatcher was utilizing coastal sage scrub vegetation on slopes to the west side of La Cañada Verde. The location was also in very close proximity to a blue-gray gnatcatcher (*Polioptila caerulea*) pair that was located in the adjacent riparian habitat. On May 24, 2010, a male California gnatcatcher responded to tape playback in the same location where the single gnatcatcher was detected on May 3, 2010 (N. 38o 58'43.563 latitude, W. 118o 0'20.808 longitude). After observing the gnatcatcher foraging and vocalizing for approximately two to three minutes, the male then flew across the dirt access road into the riparian habitat where a female California gnatcatcher and two juveniles were also observed and briefly heard. The bluegray gnatcatcher pair was also detected in very close proximity to the California gnatcatcher family group and briefly interacted with the group. On June 14, 2010, one California gnatcatcher was briefly observed in the same general location as the previous two detections. The bird was actively foraging and could only be identified by the underside of the retrice (tail) feathers. This bird was foraging in very close proximity to a blue-gray gnatcatcher family group and was presumed to be one member of the previously detected family group. OSLDF2-244
>
> The habitat in which the California gnatcatcher family group was located consisted of a mixture of coastal sage scrub and chaparral plant species including California sagebrush, purple sage (*Salvia leucophylla*), white sage, Mexican elderberry, and laurel sumac. The riparian habitat in which the family group was observed in was comprise primarily of arroyo willow and mule fat, with some saltcedar (*Tamarix ramosissima*). The nest location of the pair could not be confirmed, though it was most likely located in the northern portion of the survey area. This pair was not detected during previous gnatcatcher surveys in 2005, 2008, or 2009.
>
> The second gnatcatcher location consisted of a single male gnatcatcher that was observed on June 14, 2010 within

scrub vegetation along the access road to the Worsham Landfill (N. 38o 59'2.068 latitude, 118o 0'48.445 longitude). The bird was detected in a location where LSA Associates observed a single gnatcatcher in 2005, though it is unclear whether it was the same bird. The habitat in which the California gnatcatcher was located consisted of thin strip of coastal sage scrub that included California sagebrush, purple sage, white sage, Mexican elderberry, and laurel sumac.

In addition, Figure 4.2-3 shows there was a gnatcatcher sighting on June 9/10 2008 where the central site would be located, and a gnatcatcher was observed June 29, 2009 in the vicinity of the pipeline along the Loop Trail. **(See Figure 9)**. The surveys, which lead to these sightings, are not contained in Appendix A. Appendix A needs to include all protocol surveys for California gnatcatchers conducted in the project area since the parcels were acquired. The Revised DEIR needs to provide more complete information regarding the findings of these surveys within the body of the Revised DEIR. OSLDF2-245

In addition, the Lukos report contained in Appendix C identifies "most suitable habitat" for the California gnatcatcher where the Central Site is located and along the pipeline route. (**See Figure 9**). OSLDF2-246

The DEIR fails to adequately identify the impact of the proposed project on the federally designated threatened gnatcatcher and its federally designated Critical Habitat, limiting the identified impacts to the acres of coastal sage scrub and riparian scrub lost due to for grading clearing for fuel modification. The analysis of impacts is inappropriately constrained to the areas impacted by construction or grading and to habitat types. The entire area is designated Critical Habitat. The DEIR fails to address the full area of Critical Habitat that would be impacted, including impacts from project noise, vibration, odors and lighting. And, the DEIR fails to identify the area of Critical Habitat that would be impacted by the whole of the action allowed by the Lease Agreement. The analysis is thus fundamentally inadequate. OSLDF2-247

Designated Critical Habitat is a finite resource. The proposed project would render a number of acres of this Critical Habitat potentially unusable to the gnatcatcher for an indefinite period. Impacts to Critical Habitat are thus a **Significant Unmitigated Impact** with the proposed first phase project or any of the alternatives as well as for the action as a whole. OSLDF2-248

In addition, the proposed project would occur within occupied Critical Habitat. The loss of individual members of the species, within an area deemed essential for species survival, would result in a **Significant Unavoidable Impact** to the species. The DEIR includes BIO-1d, which requires the project applicant to OSLDF2-249

obtain an Incidental Take Permit to "cover the Project's potential 'take' (which includes the permanent and temporary loss of 5 acres of critical habitat)." (It should be noted that this is more than the amount identified as lost due to the proposed project in the Original DEIR; the revised project thus has greater impacts).

This mitigation measure constitutes an improper deferral of both mitigation and NEPA-required analysis, and an understatement of Critical Habitat impacts. Furthermore, a permit to take, does not avoid impacts to individuals of the species. Given that they are located within Critical Habitat, their continued existence is essential to the species. Since the DEIR does not include a HCP for the project, it is impossible for the public and reviewing agencies to assess whether impacts to the species can be avoided and impacts to Critical Habitat can be mitigated or whether an Incidental Take Permit is possible. In the absence of an approved HCP, impacts to Critical Habitat, the gnatcatcher species, and individual gnatcatchers (given that project roadways and sites are located where gnatcatchers have been observed) should all be classified as **Significant Unavoidable Impacts**. OSLDF2-250

Given that almost the entire 1280 acre site is Critical Habitat for the California gnatcatcher and is within a Habitat Preserve aimed at restoring important vegetative communities, simply quantifying the amount of coastal sage scrub and riparian scrub to be removed understates the impact of the project on gnatcatcher survival and recovery. The impacted area for the gnatcatchers from the first phase of the larger project is the loss of at least 40.44 acres of Critical Habitat resulting from the conversion of this Critical Habitat from protected acreage within a Habitat Preserve to private developed use. This is a significant impact to the potential survival of the species. The current mitigations are inadequate to render impacts to the California gnatcatcher and its critical habitat less than significant. A **Significant Unmitigated Impact** to the species and critical habitat remains. OSLDF2-251

New Mitigation: We would suggest a new additional mitigation measure requiring the acquisition and deeding of at least 40.44 acres (corrected to include area impacted by mitigation measures, etc.) of private land located within Critical Habitat within the Wildlife Corridor to the Habitat Preserve or Wildlife Corridor Conservation Authority. This acquired land should include at least as acreage of costal sage scrub and have been observed to contain California gnatcatchers. The conversion of privately held Critical Habitat to protected status is the only way to adequately compensate for the conversion of protected Critical Habitat to private/developed use. The acquisition and deeding of the land should be required to be completed prior to the start of any grading or construction activity on the project site. Since the Lease Agreement has made clear that purchase of land with public funds and its management by a Habitat Authority does not constitute sufficient protection for the land, this mitigation measure should also require that a conservation easement be placed over the acquired land. In the OSLDF2-252

absence of such a mitigation measure, impacts to both the California gnatcatcher and its Critical Habitat should be classified as significant unmitigated impacts.

The DEIR fails to fully identify impacts to other sensitive species known or with the potential to occur on-site including: the American peregrine falcon (observed on-site), Western spadefoot, Coastal western whiptail, San Bernardino ringneck snake, Cooper's hawk, Costa's hummingbird, Allen's hummingbird, Nuttall's woodpecker, California thrasher, Yellow-brested chat, Southern California rufous-crowned sparrow, Yuma myotis, Western red bat, Western yellow bat, Hoary bat, Pallid bat, Mountain lion, San Diego desert woodrat, and sensitive snails. Impacts to these species must be clearly identified in the DEIR. In addition, some of these species make use of habitat types for which no mitigation is provided within the Revised DEIR. Impacts to other sensitive species is thus also likely to remain **Significant Unmitigated**. OSLDF2-253

Threshold 2: Substantial adverse effects on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS

The Revised DEIR needs to address impacts to all habitat communities that are classified as sensitive natural communities and provide 3:1 mitigation for impacts to any such community type. Failure to do so results in significant unmitigated biological resource impacts. The Revised DEIR fails to address impacts to chaparral. OSLDF2-254

According to Appendix N of the RMP, there have been a number of restoration projects within the Habitat Preserve. Some of these are mitigation for development elsewhere in the County. As shown in Figure 5, which is a blow-up of a portion of Figure A-6 – Existing Restoration Sites from Appendix N of the RMP, two such mitigation project areas are located in the area potentially affected by the phase 1 project:

Arroyo Pescadero: 2.5 acres to coastal sage scrub
Former Chevron property: 9 acres of eucalyptus grove removal restored to coastal sage scrub, oak woodland, and elderberry woodland. OSLDF2-255

Since these areas represent mitigation for impacts elsewhere in the County, the effect of project impacts on these areas is essentially doubled (impact of project on habitat, loss of mitigation for impact elsewhere), and mitigation requirements for direct and indirect impacts to these areas should also thus be doubled. The acreage of these areas that is impacted needs to be quantified in the Revised DEIR. In addition, the DEIR needs to disclose the cost of the mitigation that has been lost. What were the costs of the Arroyo Pescadero and Former Chevron restoration projects?

The Revised DEIR provides no details about how the Loop Trail will be connected to Colima Road for purposes of emergency access. Has the acreage impacted by this connection been included in the estimate of habitat impacts? Has the impact on the habitat restoration and the gnatcatcher area in that vicinity been addressed in the Revised DEIR and if so where? OSLDF2-256

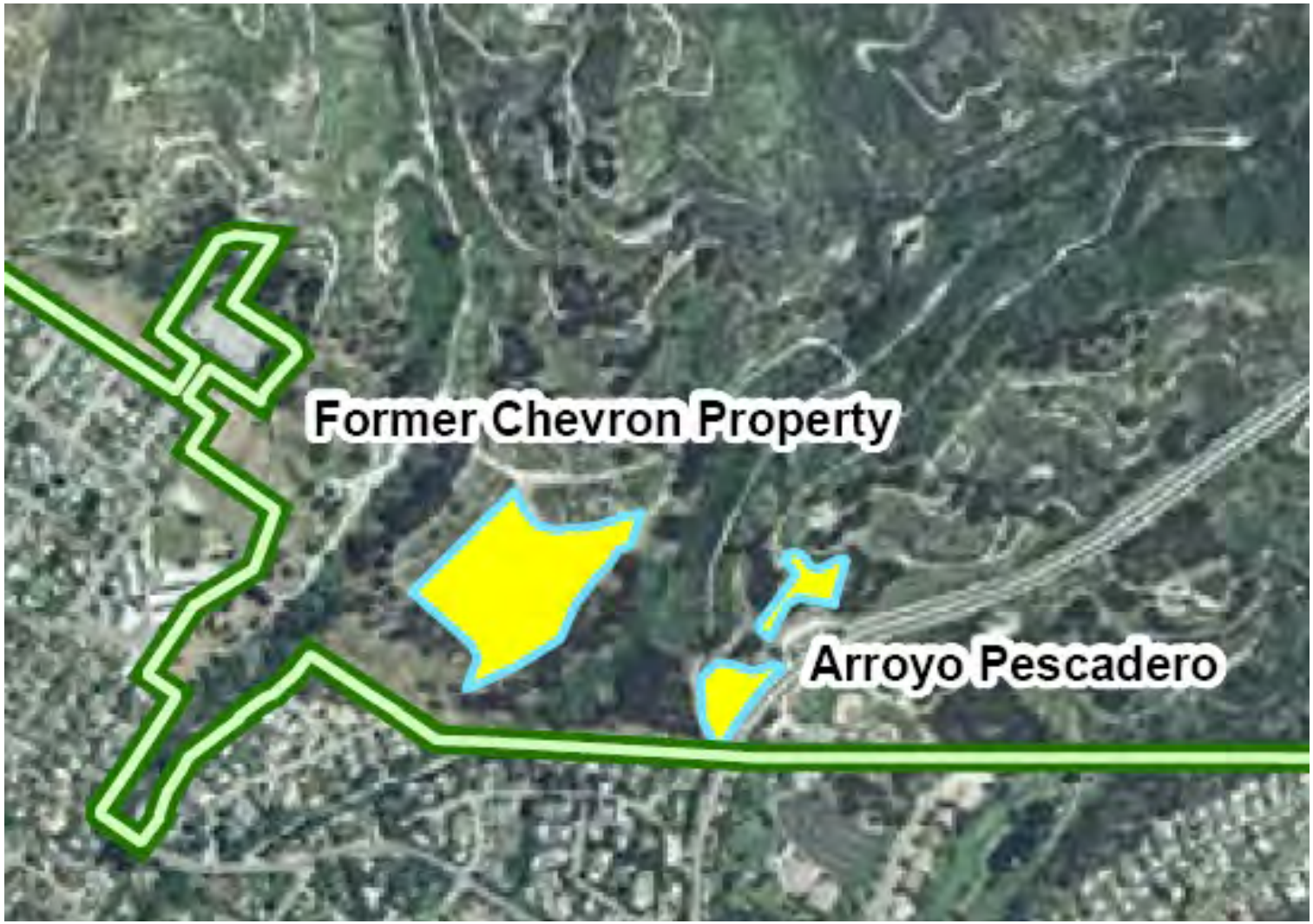


FIGURE 11:
BLOW-UP OF A PORTION OF FIGURE A-6 – EXISTING RESTORATION SITES FROM APPENDIX N OF THE RMP

Page 4.2-44	As written, the discussion of impacts to coastal sage scrub and riparian scrub really falls more under Threshold 2, as these are considered sensitive natural communities, while the discussion of impacts to special status species making use of native upland habitat belongs under Threshold 1.	OSLDF2-257
BIO-1a	This mitigation addresses the loss of a sensitive natural community. As written the mitigation is ineffective in assisting in the relocation of wildlife currently present on the project site, if it is not in place prior to any grading or construction activity on the project site. Given the nature of the project and the potential for further oil extraction activities within the Preserve, the required maintenance term should be as long as the Lease Agreement remains in effect. It is important that the biological monitor also be approved by the USFWS.	OSLDF2-258
All BIO Mitigations	It is unclear what is meant by temporary noise impacts. All replacement of habitat should be at a 3:1 ratio. The biological resource mitigations should include the following components in order to ensure that impacts associated with the loss of sensitive habitat communities are adequately mitigated. Without these additions, the mitigation measures are inadequate, and the potential for impacts to sensitive communities and the associated species remains **significant and unavoidable**:	OSLDF2-259

<u>Additions to the Mitigation Measures:</u>

• The applicant will ensure that fuel modification zones within the preserve area will incorporate non-flammable coastal sage scrub and cactus scrub plant species or riparian habitat, as appropriate. Non-native species will not be planted in fuel modification zones.	OSLDF2-260
• A revegetation/habitat replacement/restoration plan will be prepared and submitted to the U.S. Fish and Wildlife Service (USFWS) and California Departmetn of Fish and Game (CDFG) for review and approval prior to disturbing any vegetation onsite. The plan will include the proposed methods of site preparation, planting, monitoring, and maintenance. The plan will include quantitative performance criteria, such as percent cover by native and non-native Species, species diversity, and recruitment of native species and will describe contingency measures if initial revegetation efforts fail to meet performance criteria.	OSLDF2-261
• The development and revegetation/habitat restoration/replacement will be phased, such that impacts to gnatcatchers, coastal sage scrub, riparian and other sensitive habitat communities will be spread over several years. Phase I will consist of road construction. This phase will be initiated between August 15 and February 15, which is outside of the breeding season. During this phase, revegetation/replacement will commence. Vegetation disturbance in this area and roadway construction will not be initiated until the all of the specified replacement acreage for the roadway	OSLDF2-262

portion of the project has been planted and has met specified performance standards agreed to by the USFWS. Phase 2 will consist of test wells and central site area grading and construction. This phase will be initiated between August 15 and February 15, which is outside of the breeding season. Vegetation disturbance in this area will not be initiated until the all of the specified replacement acreage for the project as a whole has been planted and has met specified performance standards agreed to by the USFWS.

- The applicant will place a conservation easement over all preserved, restored or replacement habitat areas. This easement will be submitted to the USFWS for review and approval and will be recorded prior to the start of grading for the Central Site. OSLDF2-263

- The project applicant will post a bond or letter of credit in favor of the Habitat Authority for the full cost of revegetation/restoration/replacement, and monitoring over the life of the project. This bond will be posted prior to any vegetation removal. The purpose of this financial assurance is to guarantee the successful implementation of the coastal sage scrub and other sensitive community revegetation, replacement maintenance and monitoring. OSLDF2-264

- Prior to initiating coastal sage scrub impacts, the management endowments will be established to fund the perpetual management plan for the land to be acquired to off-set the loss of critical habitat within the Preserve. Evidence that the endowments has been established, as described, will be submitted to the USFWS 60 days prior to initiating coastal sage scrub impacts. The endowment amount shall be approved by the receiving authority prior to issuance of any grading or other permits for the proposed project. OSLDF2-265

- A Project restoration specialist will work with construction and grading personnel to identify and temporarily retain top soil and grubbed plant materials from areas of suitable coastal sage scrub for salvage. Mature coast prickly pear *(Opuntia littoralis)*, Dudleya, and other translocatable species will be transplanted into the revegetation and fuel modification areas. The Project restoration specialist will oversee this task, which will also focus on retaining coastal sage scrub mulch and topsoil. OSLDF2-266

- All initial vegetation clearing will take place in the presence of a biological monitor approved by the USFWS. At least 15 days prior to initiating construction activities within or near coastal sage scrub or riparian habitat, the name(s), any permit numbers, resumes, and at least 3 references of all biologists that might need to handle, move, or monitor federally listed species will be submitted to the USFWS in writing. References must be familiar with the relevant qualifications of the proposed biologist. The USFWS will review qualifications within fifteen days of receipt. Proposed activities will not begin until an authorized biologist has been approved by the USFWS. The biological monitor will ensure compliance with the Project description (including conservation measures) and terms and conditions of the biological opinion to minimize OSLDF2-267

the incidental take of the gnatcatcher. The monitor will walk ahead of vegetation removal equipment and ensure that gnatcatchers are not killed or injured as a direct result of vegetation removal activities. The monitor will have the authority to halt/suspend all activities until appropriate corrective measures have been completed. The monitor will also be required to report violations immediately to the USFWS and the California Department of Fish and Game.

- The biological monitor will direct the placement of physical barriers to limit construction activities as may be necessary to protect adjacent habitat areas. Orange snow fencing, or other appropriate barriers as determined by the biological monitor, will be placed so as to delineate Project construction areas from areas that are proposed to remain undisturbed by construction activities. The biological monitor will also work with the construction manager to identify all construction access routes, parking areas, and staging areas to ensure habitat is not disturbed outside the grading footprint. OSLDF2-268

- Final grading plans and photographs showing the fenced limits of impact and all coastal sagescrub and riparian habitat to be impacted will be be submitted to the USFWS for approval, at least fifteen days prior to initiating coastal sage scrub or riparian habitat impacts. Any coastal sage scrub or riparian impacts that occur outside of the approved construction limits or which exceeds the impact acreage estimations contained in Final DEIR's mitigation measures will be replaced at a minimum 5:1 ratio. OSLDF2-269

- If Project construction within 500 feet of coastal sage scrub to be avoided is necessary and approved by the USFWS during gnatcatcher breeding season, the biologist will implement a nest monitoring plan approved by the USFWS and submit weekly monitoring reports. The biologist will determine whether nesting activity within this area is being substantially disrupted. If the biologist determines that gnatcatcher nesting activity is being substantially disrupted, the applicant will stop work and wait until the young have fledged, the nest has been determined a failure, or a minimization plan approved by the USFWS has been implemented to reduce noise to 60 dBA in habitat occupied by gnatcatchers. This minimization plan will involve nest monitoring in concert with noise reduction measures such as the use of sound walls or other means as approved by the USFWS. OSLDF2-270

- The biological monitor with the construction manager will institute measures to prevent fires and leakage from vehicles during construction of the Project site. Such measures will include designating no smoking zones and parking areas. A water truck will be maintained onsite for fire control during all habitat-clearing activities. OSLDF2-271

- The biological monitor will conduct an annual site visit/survey during the life of the project to ensure that there are no unanticipated impacts associated with the project. Should additional biological resource degradation beyond pre-project levels occur within a half mile of any project component, the project applicant will be responsible for the cost of OSLDF2-272

mitigation to be determined by the Habitat Authority in consultation with the appropriate responsible agency (USFWS, CDFG, Army Corps).

- The City Public Works Director shall review the geotechnical study for the project and the project roads and pipelines as wells as the drainage plan and hydrology study for the project prior to issuance of any grading or construction permits for the project and shall determine, as part of this review, if any additional acreage will be impacted by the proposed project, or if the amount of cut, fill or soil export will exceed the cubic yard, acreage or landform modification information contained in the Revised DEIR. Any additional grading or acreage impacts or increase in runoff to blue-line streams will necessitate notification of the City Council, responsible agencies, and commenters on the EIR, and the preparation of a supplemental or subsequent EIR prior to issuance of any permits for the proposed project. OSLDF2-273

BIO-1b If an area is graded, it is permanently impacted. Why is revegetation with "appropriate, locally indigenous plant species," rather than with habitat which meets the objectives of the RMP and Habitat Authority for restoration of the areas habitat values, specified? OSLDF2-274

BIO-1d The applicant should be required to demonstrate compliance with Incidental Take Permit requirements, prior to issuance of any permits for the proposed project or consideration of the project by the City's decision-makers. OSLDF2-275

Page 4.2-47 To 4.2-48 Residual Impacts: The statement under residual impacts that replacement of the unpaved North Access Road which passes through occupied gnatcatcher nesting territory and which currently has only 6 one-way trips per week with a paved and expanded North Access Road (and retaining walls) which would have 78 round trips (156 one-way) per day just for soil export, would have a "negligible effect upon the local area's suitability for the continued occurrence of the gnatcatcher" is not supported by either facts or common sense. Clearly this roadway will impact this important gnatcatcher area. OSLDF2-276

It is unclear that the 1:1 habitat replacement ratio will adequately address noise impacts. This will depend on where the habitat is located and if there is sufficient critical mass of habitat in the replacement area to be attractive to potential nesters. This is one of the reasons why 3:1 replacement is a more appropriate ratio. Without the suggested addition to the mitigation language, the potential for significant unmitigated impacts remains. OSLDF2-277

Page 4.2-48 It is unclear throughout the biological resource section how the noise impact contour was derived. This should be explained. Is this just noise during site construction, or does it include operational noise. If it includes operational noise, it isn't temporary. Does it include pile placement? OSLDF2-278

BIO-2 The discussion of this impact is fatally flawed because it is based on a site plan, which has not received geotechnical review, and an analysis for a project that does not include a drainage plan. Impacts are thus likely to be understated. OSLDF2-279

BIO-2b	Permits should be obtained prior to issuance of any grading or construction permits by the city, or any test well installation.	OSLDF2-280

BIO-3	Page 4.2-50 correctly identifies the fact that "spills and associated contaminated storm water runoff reaching any of the waterways could have significant and widespread impacts to water quality and, consequently, to sensitive biological resources associated with this habitat. Impacts to biological resources from a potential oil spill associated with the future oil development would be potentially significant." However, the discussion incorrectly assumes that impacts are mitigated to a level considered less than significant by the mitigation measures specified in the Revised DEIR. In fact the finding that impacts associated with spills can be mitigated to level considered less than significant is at odds with the fact that the Revised DEIR finds impacts to hydrology and water resource significant and unavoidable per page ES-10: "Significant and unavoidable impacts to surface and groundwater quality could occur from a rupture or leak of crude oil from drilling, operations or from pipelines or other infrastructure. These impacts could not be mitigated to insignificance."	OSLDF2-281

Measure BIO-3a	While it is true that Mitigation BIO-3a would reduce impacts to biological resources associated with clean-up of a spill, the mitigation would not reduce impacts to a level which is considered less than significant, particularly given that the site is located within a Habitat Preserve. The mitigation language recognizes the potential for unmitigated impacts, stating that when habitat disturbance cannot be avoided, an as yet unwritten Emergency Response Action Plan "shall provide stipulations for development of and implementation of site-specific habitat restoration plans and other site-specific and species-specific measures," yet provides no standards to ensure that the as yet unwritten Emergency Response Action Plan will result in adequate as yet unwritten site-specific measures. This measure, as written, is thus an example of improper deferral of mitigation, and provides no assurances to an apprehensive public that mitigation will be adequate. Impacts associated with potential spills on the riparian habitat and waters of the United States remains significant and unmitigated. The conclusion on page 4.2-52 regarding residual impacts is not supported by the information contained in the Revised DEIR.	OSLDF2-282

Threshold 3: Substantial adverse effects on federally protected aquatic resources as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.

This threshold is not addressed in the Revised DEIR. Given the site plan provided in Appendix A, which shows the placement of rip-rap in the stream channel and grading of the streambank, and the lack of a geotechnical report for the project as proposed, the potential for impacts to waters of the United States remains **significant and unmitigated**.	OSLDF2-283

There is no indication that a wetlands delineation study was prepared for the proposed project, yet the DEIR indicates that the proposed project will result in the loss of riparian habitat. How was the acreage of riparian habitat that would be impacted calculated? As shown in DEIR Figure 4.2-8, phase 1 primary access would cross one riparian area, secondary Catalina Avenue access travels along a riparian area and key drainage, and the Central Site would be wrapped around a riparian area and key drainage and the Loop Road crosses a key drainage. OSLDF2-284

Page 2-20 of the Revised DEIR states that "(a)pproximately 1,800 feet of Catalina Avenue within the Preserve would be improved and widened according to LACoFD requirements." The EIR needs to discuss whether this improvement will impact the riparian area or require improvement of the existing culvert under Catalina Avenue. OSLDF2-285

As in the Revised DEIR, the Arroyo Pescadero watershed and the La Canada Verde watersheds are the second and third most-sensitive watersheds within the Habitat Preserve. Since a streambed alteration agreement is required for phase 1 of the project, per mitigation BIO-2b, the DEIR should include a full wetlands delineation study in order to ensure that impacts to the watershed and riparian areas are fully identified. In addition, the DEIR fails to address whether changes in drainage associated with the proposed project would impact these watercourses. The proposed project includes substantial grading and landform modification for construction of both the central site area and roadways. The DEIR thus includes an inadequate analysis and mitigation of potential impacts to riparian and wetlands resources. Impacts to riparian and wetlands should therefore be considered a **Significant Unavoidable Impact**. OSLDF2-286

The Revised DEIR acknowledges the project's potential to result in the rupture of oil wells, pipelines or other oil field-related infrastructure. The DEIR should include a tank failure analysis and inundation study to determine the area of likely impact associated with ruptures. Mitigation Measure BIO-3 states that "when habitat disturbance cannot be avoided, the Emergency Response Action Plan shall provide stipulations for development and implementation of site-specific habitat restoration plans and other site-specific and species-specific measures appropriate for mitigating impacts to local populations of special-status wildlife species and to restore native plant and animal communities to pre-spill conditions." The mitigation thus anticipates that it may not be possible to avoid impacts associated with spills and ruptures. Since an Emergency Response Action Plan is not included in the DEIR for the project and phase 1 development, it is not possible for the public and reviewing agencies to assess the efficacy of the Plan. Mitigation BIO-3 is thus an example of improper deferral of mitigation and the DEIR does not provide sufficient information to support a conclusion that acknowledged impacts can be mitigated to a level that is less than significant. The potential for **Significant Unavoidable** spill-related Impacts to habitat, sensitive species, riparian and water resources, and the Preserve remains. OSLDF2-287

Threshold 4: Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or interference with the use of native wildlife nursery site.

Page 4.2-53 The Revised DEIR should include a Figure, such as **Figure 12** on the following page that shows the location of project elements within the Core Habitat Management Zone of the Preserve. A figure, such as the one on the following page clearly shows that the proposed project will bisect this important area, and disrupt years of restoration and recovery. As noted on page 4.2-53, the "Core Habitat area is the largest contiguous area in the Preserve that is well-buffered from such "edge effects" as lighting, noise and intrusions by human and domestic animals." The proposed project would destroy this. As noted on page 4.2-53:

> During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. The removal of native vegetation and non-native vegetation, including the removal of several eucalyptus trees required for the Processing Facility, would result in the loss of important nesting habitat for songbirds and raptors. These represent potentially significant adverse effects upon wildlife populations in the Preserve.

OSLDF2-288

This is clearly a significant impact of the proposed project. The proposed project will have **Significant Unmitigated Impacts** on the Preserve's wildlife corridor, the Preserve's Core Habitat nursery function and the larger Wildlife Corridor. The Revised DEIR needs to separately acknowledge these impacts. The mitigation measures specified in the revised DEIR do little offset the bisecting nature of the project's design.

As shown in **Figure 13**, central site and roadway activities essentially remove valuable acreage from the wildlife corridor and nursery area (area shaded red). If the Loop Road is used for more than just emergency access by the fire department, use of this roadway by vehicles would also essentially remove the wildlife corridor value of the area shaded in orange in **Figure 13**. The mitigations in the Revised DEIR are insufficient to address this impact. Wildlife Corridor and nursery impacts thus remain **significant and unmitigated** without the addition of a mitigation provides for replacement of the lost wildlife corridor and nursery function, i.e. which operationalizes the following concept: OSLDF2-289

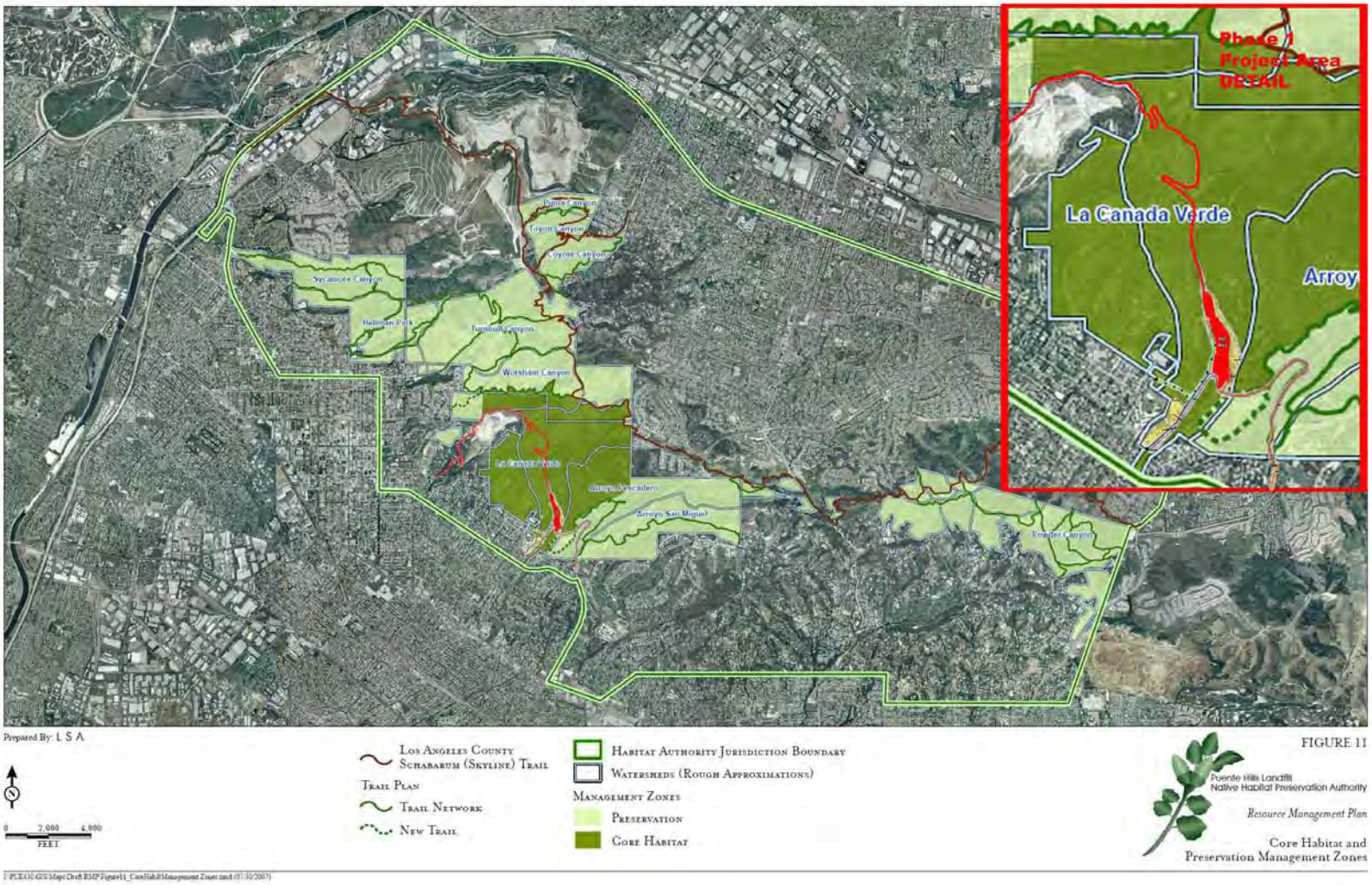


FIGURE 12:
PROJECT'S LOCATION IN CORE HABITAT

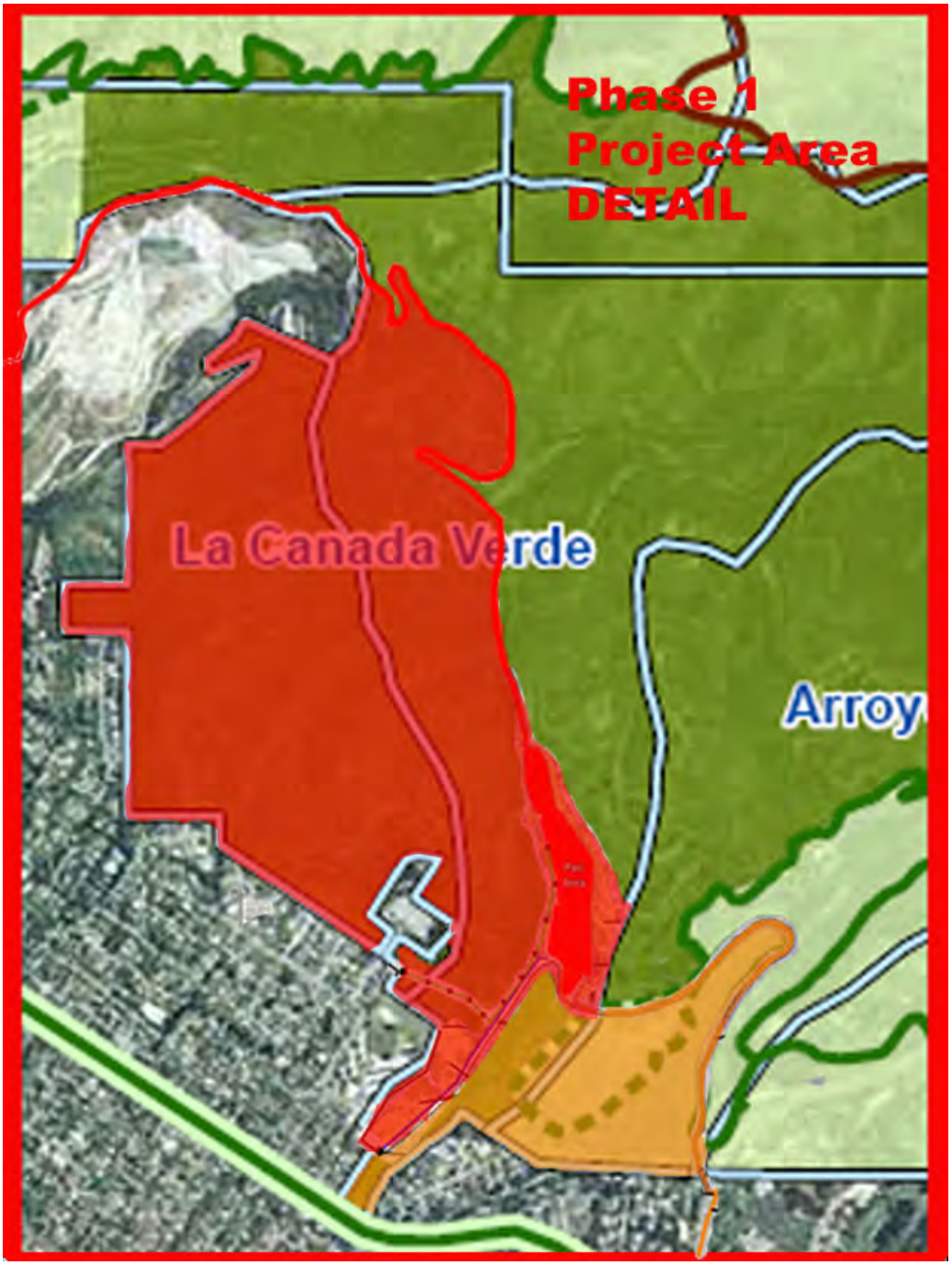


FIGURE 13:
WILDLIFE CORRIDOR OFF-SET MITIGATION CONCEPT (Area of Wildlife Corridor Required To Be Replaced Through Acquisition of Endangered Middle Land Off-Set Shown in Red and Orange)

New Mitigation: The project applicant shall be responsible for acquiring a portion of the missing middle of the Wildlife Corridor equal in area to the area shown in red on **Figure 13** (adjusted to include all acreage impacted by noise and project grading and landform modification). Preference will be given to acquisition of land adjoining the Habitat Preserve or other protected portions of the Wildlife Corridor. The land will be protected by a Conservation Easement and deeded to the Habitat Authority or Wildlife Corridor Conservation Authority. The land shall be acquired, protected and deeded prior to issuance of any grading or construction permits for the proposed project. In the event that the Loop Access Road is used for other than emergency access by the Fire Department only, upon the first non-emergency use of the Loop roadway, the applicant shall also be responsible for acquiring a portion of the missing middle of the Wildlife Corridor equal in area to the area shown in orange on **Figure 13** (adjusted to include all acreage impacted by noise and project grading and landform modification). Preference will be given to acquisition of land adjoining the Habitat Preserve or other protected portions of the Wildlife Corridor. The land will be protected by a Conservation Easement and deeded to the Habitat Authority or Wildlife Corridor Conservation Authority within six months of the non-emergency use of the roadway, or operations at the central site facility will be suspended pending completion of the land acquisition, protection and deeding. Land acquired and similarly deeded and protected for purposes of mitigating impacts to Critical Habitat may be credited towards the total acreage required by this mitigation. OSLDF2-290

Page 4.2-53 The following statement is unsupported: "It is also relevant that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, without resulting in significant, long-term, adverse effects on the local wildlife populations." The fact that wildlife has recovered in the area during the twenty years since drilling ceased and the more than fifteen years that the 1,280 acres have been part of the Habitat Preserve is testament to the importance of the Wildlife Corridor as a mechanism for providing access to the area for wildlife replenishment and genetic diversity. The statement should thus be deleted or corrected. OSLDF2-291

The Revised DEIR states that: "The removal of native vegetation and non-native vegetation, including the removal of several eucalyptus trees required for the Processing Facility, would result in the loss of important nesting habitat for songbirds and raptors." This is a significant impact requiring identification and mitigation. Furthermore, Mitigation Measures BIO-4f and BIO-4g anticipate the removal of trees from the project area. There has been no analysis in the DEIR of the number and type of trees to be removed and whether such trees currently serve a roosting or nesting sites for birds, or special-status bats. In addition, the buffers specified in these mitigation are likely inadequate to protect against noise impacts to nesting/roosting species. The DEIR needs to include a full analysis of tree OSLDF2-292

removal. Any buffers specified in mitigation measures must address the sound characteristics of drill and construction activities as well as project-generated vibration. The Revised DEIR's analysis of impacts to bats and roosting in the area is inadequate.

The following conclusion is unsupported and contrary to common sense: "It is concluded that the Project's potential impacts on bobcats and other wildlife species will be adverse, but less than significant with provision of the required mitigation measures." OSLDF2-293

Page 4.2-53 The statement that "the proposed Project would contribute an average additional 24 vehicles per day during operations and up to 70 truck trips during excavation activities that are anticipated to last 120 days during the construction phase" is not supported by information contained in Appendix A. It should be noted that Appendix A indicates more truck trips for a longer period. It should also be noted that the truck trips in Appendix A are two-way trips. The Revised DEIR thus understates the impacts of the North Access Road on biological resources. OSLDF2-294

The statement that "Impacts to wildlife movement would be significant but mitigatible in most areas of the Proposed Project" is not supported by facts. In addition, since the Revised DEIR states the "impacts are mitigatible in <u>most</u> areas" it conversely acknowledges that impacts are not mitigatible in all areas, and that significant unmitigated impacts remain. OSLDF2-295

Closing the Arroyo San Miguel trail does not mitigate for the loss of land available for use as a wildlife corridor due to project activities. It may provide for more use of the service tunnel by wildlife, but the corridor and nursery area available to the wildlife once they passed through the tunnel would be constricted by project activities. The mitigation measures do not address this effect, and wildlife corridor and nursery impacts remain significant and unmitigated by the measures specified in the Revised DEIR. OSLDF2-296

All Mitigations The phrase "to the maximum extent feasible" vitiates the effectiveness of mitigation measures. A search and replace should be done and this language should be removed from any mitigation measure included in the EIR. OSLDF2-297

Mitigation BIO-4c This mitigation would reduce, but not eliminate the potential for project-induced wildlife mortality on project access roads. The phrase "all nighttime traffic shall be minimized" is meaningless. The mitigation should ban nighttime traffic on the North Access Road. OSLDF2-298

Page 4.2-60 The discussion of Residual Impacts needs to be rewritten pursuant to our comments on the impact analysis. As currently written it has a project-justifying

quality that is inappropriate in an independent value-neutral analysis and contains a number of unsupported statements and conclusions. The conclusion that the mitigations as currently written are adequate to mitigate impacts to the wildlife corridor and nursery functions of the preserve defy common sense. OSLDF2-299

Threshold 5: A conflict with any local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance.

The conclusions reached in this section of the Revised DEIR defy common sense. Clearly the proposed project is inconsistent with the City's General Plan, the Municipal Code, and the Preserve's RMP. The conclusion that mitigation measures BIO-1 through BIO-4 reduce the project's conflicts with these policies to a level that is considered less than significant is not supported and is contrary to common sense. OSLDF2-300

For example, the proposed project is clearly inconsistent with a number of biological resource policies. Clearly the proposed project violates Section 18.090.020 of the City's Municipal Code which states that: "(e)xtremely limited development and disturbance of natural features within designed OS areas would be permitted, and only in the interest of public use, safety, or welfare shall such modifications occur." The proposed project does not represent extremely limited development or disturbance, and isn't in the interest of public use, safety or welfare. The conclusion that conflicts with policies and ordinances protecting biological resources in the City's General Plan and Municipal Code are less than significant with mitigation is not supported by any real analysis and defies common sense. Policy consistency impacts remain **Significant and Unavoidable** and should be classified as such. OSLDF2-301

The proposed project would clearly conflict with provisions of an approved HCP due to its impacts on Preservation Management Zone and Core Habitat Management Zone areas identified in the Habitat Authority's 2007 Resource Management Plan (RMP). As previously shown in **Figure 12**, key components of the proposed project would be located in the portion of the Habitat Preserve designated as Core Habitat. All of the proposed first phase would be located in within either the Core Habitat or a Preservation Management Zone. The Landfill Access Road would travel through the center of the Core Habitat. Core Habitat is described in the RMP and in the Revised DEIR as areas that "would remain off-limits for the sole purpose of providing undisturbed habitat for wildlife, which contributes to sustaining the overall ecological health of the Habitat Authority's jurisdiction." Core Habitat provides "food, shelter, a place to safely reproduce, and depending on how large the habitat, a place for young to disperse." "Permissible activities include authorized biological survey and some restoration and/or invasive species removal, but no unsupervised public access." The first phase of the proposed project would therefore strike a blow to the heart of the Habitat Preserve, by introducing human activity, industrial activity, vehicular activity, noise, light and odors into the Core Habitat Management Zone of the Preserve. The Revised DEIR acknowledges the importance of this habitat, but fails to identify a Significant Unavoidable Impact. The impact to the Core Habitat of the Preserve is clearly an **Unavoidable Significant Impact** of the first phase of the proposed. This conflict with an approved habitat conservation plan is a Significant Unavoidable Impact of the proposed project and must be identified as Unavoidable Impact in the Revised DEIR. OSLDF2-302

Page 4.2-61
To 4.2.62

The statement that "without the approval of the Project and the lack of funding that would occur after 2013, the Preserve may have inadequate funding to continue current levels of restoration and preservation of the site, which in turn would prevent the Preserve of meeting the goals and objectives of the RMP" is project-serving and inconsistent with the nature and level of funding to be provided to the Habitat Authority under the Lease Agreement. OSLDF2-303

The Lease Agreement provides the Habitat Authority with a monthly management fee to off-set the additional costs placed on the Habitat Authority and its Rangers associated with monitoring the proposed project and its impacts. That amount is only $5,000 per month increasing to $7,000 per month with the commencement of drilling operations. This sum is likely insufficient given the additional personnel requirements imposed by the proposed project. The Lease Agreement does also include an annual Habitat Enhancement Fee in the sum of $100,000 per year but does not mandate the fee be used for habitat enhancement. It is thus likely to be needed to address the additional personnel costs associated with monitoring the proposed project. The proposed project is thus hardly a windfall for the Habitat Authority and it is unclear that the monies provided in the Lease Agreement for the Habitat Authority accomplish anything other than off-setting some of the additional costs imposed on the Habitat Authority by the proposed phase 1 project. OSLDF2-304

This section of the DEIR must discuss the project's consistency with each of the federal, state and local policies that apply to the biological resources on the project site. The DEIR's conclusion that the mitigation measures reduce biological resource-related policy consistency impacts to a level that is less than significant is not supported by either the analysis contained in the DEIR or common sense. For example, the introduction of mining activity into a Habitat Preserve area where human activity is largely prohibited cannot be mitigated via the measures included in the DEIR. Only compliance with the prohibition on activity within this area would reduce impacts to a level considered less than significant. OSLDF2-305

Threshold 6: A conflict with the provisions of an adopted Habitat Conservation Planning program, Natural Community Conservation Planning program, or other approved local, regional, or state Habitat Conservation Planning program.

The Revised DEIR fails to address consistency with the County of Los Angeles Environmentally Sensitive Habitat Area designation for the project area or the Wildlife Corridor Conservation Authority's program. In addition, the Revised DEIR fails to address Habitat Conservation Plan requirements under the endangered species act for a project located within Core Habitat. OSLDF2-306

Residual Impacts	The residual impact conclusion on page 4.2-62 is not supported by analysis or common-sense. Given both the wildlife corridor and nursery function of Core Habitat, and the project's impacts on such functions, impacts throughout the project area would remain **Significant and Unavoidable**. The DEIR thus understates the magnitude and extent of such impacts.	OSLDF2-307
Section 4.2.5	This section fails to discuss or analyze the potential impacts of many of the mitigation measures with the potential to impact biological resources, including but not limited to Mitigation Measures: • BIO-4n - impact of new parking area? • N-1c - impact of relocated construction parking and staging area? • N-2a – geological and associated biological resource impacts of additional barriers? • Bio-4b – only requires mitigation to the "extent feasible." • GR1-c, GR-1-d, GR-5a, GR-5b – impact of possible additional grading and landform modification required by project-specific geotechnical report? • T-1d – impact of the additional turning radius required? • WR-1b and WR-1b - impact of the location and design of the drainage system for the project including the North Access Road?	OSLDF2-308
Section 4.2.6	This section fails to address the additional drilling within the Preserve and recent roadway and streambed changes which have occurred at Matrix's Sycamore Canyon facility since issuance of the Lease Agreement. These modifications in combination with the proposed phase 1 project must be addressed in the Revised DEIR. The proposed phase 1 project in combination with the cumulative increase in oil drilling and modifications to the Sycamore Canyon facility in the Preserve clearly result in the significant cumulative biological resources impacts.	OSLDF2-309
	This cumulative impact discussion and every other cumulative impact discussion in the Revised DEIR fails to address potential future CUP applications under the Lease Amendment. This renders the entire cumulative impact analysis contained in the Revised DEIR fatally flawed.	OSLDF2-310
	Mitigation Measure Cumulative BIO-1 makes no sense. How does achieving exterior noise standards at the Preserve property's boundary help? How far is the Preserve property boundary from the facility? The mitigation measure should be rewritten to require that this standard be met at the Sycamore Canyon operations pad boundary.	OSLDF2-311
	As detailed above, in the absence of additional mitigation, phase 1 of the proposed project would result in a number of Significant Unavoidable biological resource impacts. The mitigation measures contained in the DEIR do not	

adequately compensate for the biological resource impacts of the proposed project. The notion that the proposed project would not result in cumulatively considerable biological resource impacts is thus laughable. As we previously commented, particularly entertaining is the statement on page 4.2-65 of the DEIR that the "mitigation measures identified in this report are designed to bolster the ecological resilience of the Preserve in the Project vicinity, counteracting the adverse effects of the proposed Project, both considered alone and in the context of contributions to cumulatively considerable impacts." The DEIR actually suggests that conducting oil drilling within a Habitat Preserve is the way to "bolster the ecological resilience" of a preserve. The proposed project would introduce acres of human and industrial activity into a Core Habitat and Critical Habitat area, disrupting the use value of not only the actual area disturbed by the phase 1 project and action as a whole, but a number of additional acres as well, as wildlife avoid the disruptive effect of these activities. These are Significant Unavoidable Impacts. The proposed project thus contributes to **Significant Unavoidable Cumulative Impacts** to the wildlife corridor, the nursery value of the Preserve, Critical Habitat, Core Habitat, sensitive species, the federally listed gnatcatcher, and riparian areas, at a minimum. OSLDF2-312

The discussion of biological resource impacts contained in Section 4.2 of the DEIR is fatally flawed and must be redone to address issues contained in this comment letter, the comments letters received on the NOP, the comment letters received on the Original DEIR, comments from the Habitat Authority and all other comments regarding biological resources received during the DEIR comment period. OSLDF2-313

The soils and geotechnical testing which was conducted by Heathcote and PW Environmental needs to be addressed in this section of the Revised DEIR. We would note that Section 6.1 of the Lease Agreement (which needs to be included as an appendix to the Revised DEIR) prohibits surface entry to the property until a CUP is obtained and CEQA is complied with. It appears that this testing was conducted in violation of the Lease Agreement. PW Environmental's testing and involved sampling to a depth of 10 feet; the sampling by Heathcote also needs to be described. Was this testing done under the supervision of the Habitat Authority? When was this testing done? It should be noted that Figure 4.3-2 shows that soil sampling by PW Environmental was done in areas where gnatcatchers have been observed. The impact of this testing on biological resources, including gnatcatchers needs to be disclosed in the Revised DEIR. The biological resources section the Revised DEIR needs to disclose and address the biological resource impacts resulting from geotechnical, soils and any other disturbance caused in the preparation of the Revised and disclose and address any mitigation applied. This testing activity potentially resulted in significant biological resource impacts that are not addressed in the Revised DEIR. OSLDF2-314

5.2.3 Safety, Risk of Upset and Hazardous Materials

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-315

The results of the soil testing done by PW Environmental under contract to Matrix needs to be included in an appendix to the Revised DEIR. We would note that Section 6.1 of the Lease Agreement (which needs to be included as an appendix to the Revised DEIR) prohibits surface entry to the property until a CUP is obtained and CEQA is complied with. It appears that this testing was conducted in violation of the Lease Agreement and involved sampling to a depth of 10 feet. This needs to be disclosed in the Revised DEIR. OSLDF2-316

This section of the Revised DEIR needs to fully disclose information on the fatal fire at Matrix's Honolulu Terrace facility and Matrix and Crimson Pipeline pipeline failures. Footage of the fire is available at: OSLDF2-317

http://www.youtube.com/watch?v=8RRat40wxoY&feature=player_embedded

Page 4.3-52 makes reference to the fire at Honolulu Terrace, but fails to disclose that it was a fatal fire. OSLDF2-318

Revised DEIR indicates that a gas pipeline that would be installed between the Processing Pad and the Savage Canyon landfill to supply gas to City. This is in a very high fire severity risk area. The Revised DEIR does not adequately address the potential risk resulting from fires caused by potential pipeline failure. Since the pipeline is above ground a truck on the Landfill Access Road may strike it. OSLDF2-319

This section does not adequately address potential wildlife impact associated with a failure at the facility and associated fire. OSLDF2-320

5.2.4 Geological Resources

The discussion of geological resources and associated impacts contained in the Revised DEIR is fatally flawed. OSLDF2-321

The analysis fails to address the whole of the action. Not only does the analysis fail to address future phases of the project, it fails to address the whole of the actions included in the first phase. This section of the Revised DEIR (per page 4-4-1) improperly defines the "Project Site" as "comprised of the proposed consolidated drilling site." The analysis thus fails to address geological issues associated with the three project access roads: the Landfill Access, Catalina Access and the Loop Trail Road. For example, Figure 4.4-1 on page 4.4-3 doesn't even show the Landfill access road. OSLDF2-322

Given that the project site is the entire 1,290 acres of the Lease, the statement on page 4.4-7 that no "Alquist-Priolo Fault Zones are present within the Project Area, is inaccurate. The Revised DEIR should include a map showing the location of all of the Phase 1 project facilities and the larger project site, in relation to the nearby Alquist-Priolo Fault Zone and other seismic hazards. The following **Figure 14,** which does not include the full extent of the Landfill Access Roadway, is provided by way of a quick example. It shows the project facilities in red, orange and yellow. Any figure included in the Revised DEIR should also include the full extent of the Landfill Access Roadway. OSLDF2-323

In addition, the environmental setting fails to identify some of the key characteristics of the phase 1 site area. For example, other than Figure 4.4-1, this section of the Revised DEIR largely ignores the presence of blue-line streams. A reader unfamiliar with the site would not learn that the consolidated site is located on the banks of a stream. For example, as stated in the Geotechnical Report on pages L-9 to L10 and L-11:

> The consolidated site is located along the valley floor of the La Canada Verde Creek. Access to the Open Space area and the subject valley is through a residential housing tract, off the north end of paved Catalina Avenue. Catalina Avenue extends northerly beyond the residential area through gates which mark the southerly boundary of the Open Area and continues as a partially paved but less well maintained roadway following the valley floor of La Canada Verde Creek which is an antecedent stream that heads northeast of the backbone of the Puente Hills and north of the Whittier Fault zone and drains south through the southerly slopes of the hills and onto the Downey/Los Angeles plain. The stream bed is relatively broad with a flat-floor and bordered on each side by slopes having gradients estimated at two horizontal to one vertical (2:1) or steeper. The steeper slopes are generally caused by grading. The proposed site is irregular in shape. OSLDF2-324
>
> This site is elongate running parallel to the valley floor. The site is bordered on the west by the roadway with the active stream channel being offset to the west side of the valley. The westerly portion of the site occupies the relatively flat alluvial surface with the easterly side of the sit including the ascending west-facing slopes of a south-trending ridge. Th average elevation is estimated at 470 feet mean sea level with elevational difference ranging from 460 feet to 650 feet.
>
> Several paved roadways traverse the site. The topography has been significantly altered by prior grading. Several roughly level pads, developed terraced fashion, are located along the west-facing slope. . .
>
> La Canada Verde Creek is designated as blue-line stream on the U.S.G.S. Whittier Quadrangle indicating that it is a stream which flows for most or all of the year.

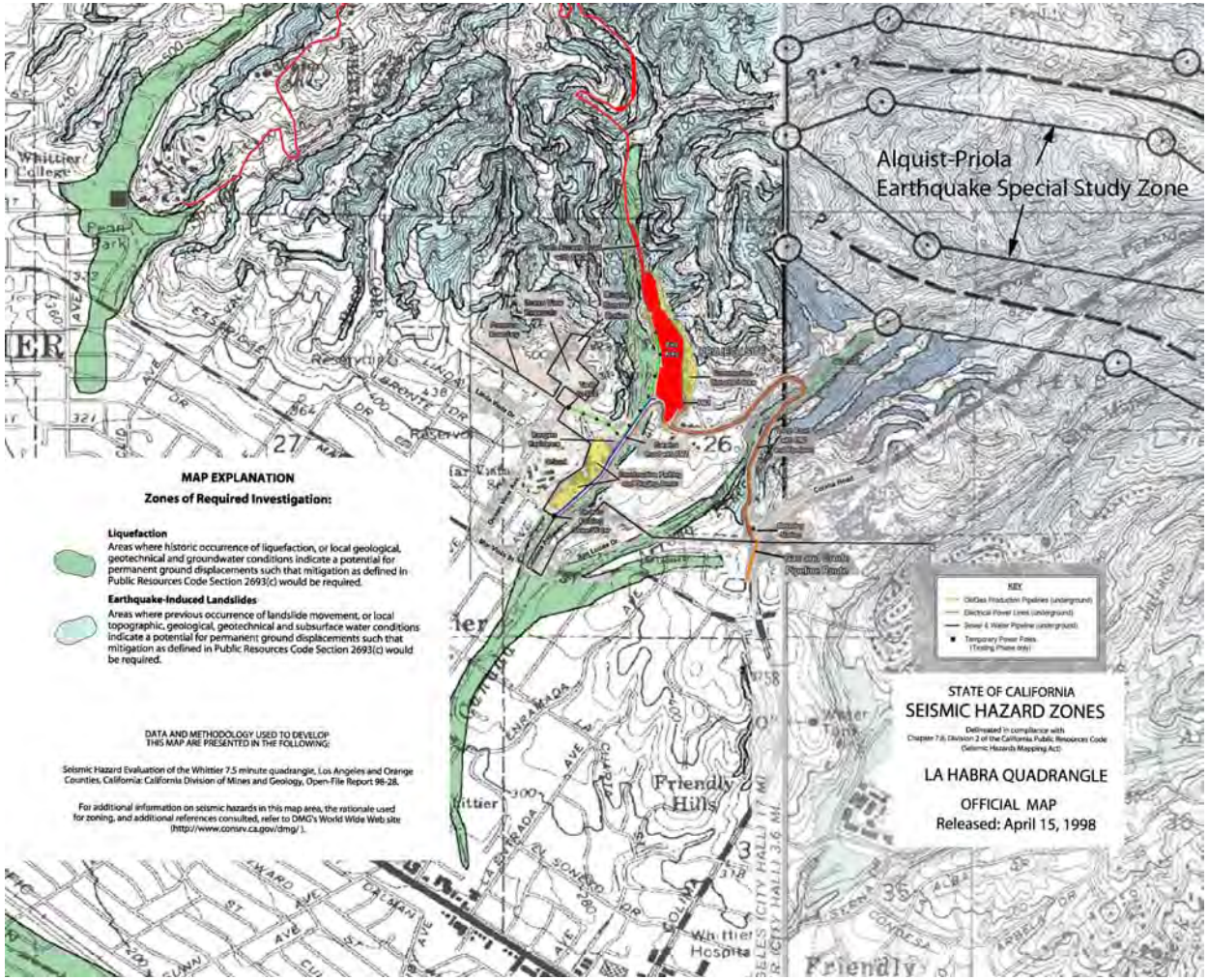


FIGURE 14:
QUICK EXAMPLE OF FIGURE SHOWING PROXIMITY OF FACILITIES TO ALQUIST-PRIOLA EARTHQUAKE STUDY ZONE

While the environmental setting does contain most of the following information from the Geotechnical Report, it presents the information in a way that does not make it completely clear to the reader that the phase 1 project site is located within the Coyote Hills segment of the Puente Hills blind-thrust fault and the thrust fault generated the 1987 Whittier Narrows Earthquake per Geotechnical Report pages L-13 to L-14:

> The project site is located within the Puente Hills blindthrust system, an active blind-thrust system in the northern Los Angeles basin. The blind thrust extends for more than 40 km along strike in the northern Los Angeles basin from downtown Los Angeles east to Brea in northern Orange County and consists of at least three distinct geometric segments, which from west to east include the Los Angeles, Santa Fe Springs, and Coyote Hills segments, from west to east (Shaw, et.al., 2002). The project site appears to be located within the Coyote Hills segment of the thrust fault. The Puente Hills Blind Thrust appears to have generated the 1987 Whittier Narrows Earthquake (magnitude 5.9, focal depth 9.5 km) (USGS). Aftershocks from this earthquake occurred on the northwestern splay of the Whittier fault system which may indicate that two major fault systems may have linked slip and rupture histories. Moreover, Shaw(2002) postulates that the Puente Hills Blind Thrust segments could rupture separately and produce magnitude 6.5 to 6.6 earthquakes or if multi-segments were to rupture, magnitude 7.1 earthquakes could be produced. Slip rates suggest that earthquakes would occur every 400 to 1320 years on individual and segments and 780 to 2600 years on multi-segments.

OSLDF2-325

As noted on pages 4.3-13 and 14 of the Revised DEIR:

> As previously discussed under Secondary Seismic Hazards, the State of California has mapped mountainous areas that are potentially prone to seismically induced slope failures, including, rockfalls, debris flows, slumps, and landslides. Based on these maps, the west-facing slopes immediately east of the Project Site are prone to earthquake-induced landslides. In addition, the slopes along the east side of Arroyo Pescadero (Figure 4.4-1), which is traversed by the proposed pipeline route, are prone to landslides. More specifically, these slopes are an area where previous occurrence of landslide movement or local, topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements (California Department of Conservation, Division of Mines and Geology 1999).
>
> In addition, a geotechnical investigation of the Project Site indicated the topography is prone to surficial slope failure, due to the friable nature of the Fernando Formation, which forms the slopes within the Project Site. Bedding within the Fernando Formation also dips out of slope, creating

OSLDF2-326

> adverse, or unsupported bedding conditions, which are prone to failure, especially if undercut at the toe during construction. In addition, small, cross-bedding landslides and surficial slope failures were noted along La Canada Verde Creek, located immediately downslope of the Project Site (Heathcote Geotechnical 2011).

However, the Revised DEIR fails to identify the landslide hazards along the route of the proposed Landfill Access Road, as shown in **Figure 14**. This is no doubt because no geotechnical report has yet been disclosed and/or prepared for the proposed roadway. Failure to address potential hazards along the proposed roadway is a fatal flaw of the Revised DEIR. The Revised DEIR fails to identify potentially significant hazards associated with this roadway or to address the feasibility of the roadway as proposed.

The Geotechnical Report at page L-15 indicates:

> The site, as with all sites in southern California, will experience significantly strong seismic ground motions caused by activity on regional faults at some time in the future. Those which are of major significance to the project include, among others, the San Andreas Fault, the Whittier Fault, the Elysian Park Thrust, and the San Jose Fault. Within the last 60 years at least 60 events of magnitude 5.0 or greater have occurred in the southern California region. There is a high probability that other significant events will occur in this century. Potential hazards from earthquakes in the project area include groundshaking, fault rupture, liquefaction, lateral spreading and seismic settlement.
>
> . . .
>
> Based upon the predicted ground acceleration and underlying earth material conditions, moderate to severe ground shaking due to a seismic event on a nearby fault could potentially cause damage to the proposed and existing structures.

As noted on page 4.4-8 of the Revised DEIR:

> At the Project Area, there is a 10 percent probability of exceedance of ground acceleration of 0.4 to 0.5 g (percent of gravity) (California Geological Survey 2011).
>
> In confirmation of the maps described above, Project Site-specific acceleration values of 0.4861 g to 0.475 g were calculated. Based on these predicted ground accelerations and underlying earth material conditions, moderate to severe ground shaking due to a seismic event on a nearby fault could potentially cause damage to the proposed structures (Heathcote Geotechnical 2011).

This means that there is a 10 percent probability of exceedance in the next 50 years, or a 5 percent probably in the next 25 years. Given the potential life of the project, its location within a high fire hazard area and nature preserve, and the nature of the potential damage, this is not a small probability. As noted on page 4.4-7 of the Revised DEIR:

> The low earthen embankments used as retention dikes around oil storage tanks are subject to failure from earthquake shaking. Damage to storage tanks is commonly due to the sloshing of liquids that damages or destroys the fixed or floating tank tops. Tank piping often breaks when it does not possess sufficient flexibility. Historically, while the spillage of oil has sometimes been considerable, these spills have not been serious when contained within dikes and kept free of ignition sources (California Division of Mines and Geology 1988).

The Revised DEIR provides only the most limited of information about the proposed wells and their subsurface location (and fails to address the proximity of the roadways to the Alquist-Priolo Zone. Page 4.4-17 of the Revised DEIR states:

> As illustrated on Figures 4.4-2 and 4.4-3, the active Whittier Fault is at its closest point approximately 1,500 feet north and northeast of the Project Site and proposed pipeline route, respectively. In addition, the Puente Hills blind fault system underlies the Project Area. Because the surface trace of the Whittier Fault does not traverse the Project Area, the potential for fault surface rupture is low. However, up to 60 directionally drilled wells would potentially be completed across the Whittier Fault and/or the Puente Hills Thrust Fault. In the event that an earthquake occurred along either of these faults, the integrity of the well bore would potentially be comprised at the point where the borehole traverses the fault. In the unlikely event that this occurred, under a worst-case scenario, the oil well boreholes would potentially be sheared and sealed, thus preventing additional oil and gas production from that well. Similarly, injection well boreholes would potentially be sheared and sealed, thus preventing additional disposal of produced water in that well. Although such a scenario would necessitate well abandonment and would be detrimental to oil and gas production and associated disposal operations, the potential for spills or releases of oil and gas or produced water to the environment would be lessened with respect to normal drilling, production, and disposal activities, due to partial or complete sealing of the well as a result of the seismically induced ground motion.

OSLDF2-327

Far more detail about the subsurface location of the proposed wells and the potential for impacts needs to be provided. The assumption that the earthquake would seal the wells and the potential for release of oil and gas or produced water into the environment is not supported by

any facts, reasonable assumptions predicated on facts of expert opinion supported by facts. Rather the Revised DEIR provides an unsupported conclusion.

The Revised DEIR needs to disclose that Matrix Oil had an oil pipe leak in 2009 at its Honolulu Terrace Facility. The Revised DEIR should also disclose the recent oil leak in Huntington Beach from a Crimson Pipeline pipeline. OSLDF2-328

What would have happened to the facilities and wells if the Phase 1 project were in place during the Whittier Narrows earthquake? The Revised DEIR needs to include a failure analysis to determine the potential for damage to the preserve and its resources in the event of an earthquake. The analysis needs to look at the design and sizing of the specific facilities proposed on the first phase project site. OSLDF2-329

The discussion on page 4.4-16 needs to be revised to reflect the fact that, per recent revisions to the California Code of Regulations Section 1760 Definitions:

(e) **"Environmentally sensitive"** means any of the following:
(1) A production facility located within 300 feet of any public recreational area, or a building intended for human occupancy that is not necessary to the operation of the production operation, such as residences, schools, hospitals, and businesses.
(2) A production facility located within 200 feet of any officially recognized wildlife preserve or environmentally sensitive habitat that is designated on a United States Geological Survey topographic map, designated waterways, or other surface waters such as lakes, reservoirs, rivers, canals, creeks, or other water bodies that contain water throughout the year.

In addition, per Section 1720:

(a) "**Critical well**" means a well within: OSLDF2-330
(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or
any other area of periodic high-density population; or
(D) Any offi cially recognized wildlife preserve.

The Revised DEIR needs to discuss the specific requirements for environmentally sensitive facilities and critical wells. OSLDF2-331

The impact conclusions contained in this section the Revised DEIR are based on the Geotechnical Report contained in Appendix L of the Revised DEIR, which is for an earlier version of the proposed project. The current version of the Proposed Project has been moved even closer to the banks of the existing stream and now appears to include grading within the banks. This was not addressed in the existing Geotechnical Report. The Revised DEIR needs to address the potential impacts associated with location of the facilities in such close proximity to the stream bank. In addition, no Geotechnical Analysis is provided for the Landfill Access Road, the Loop Trail Road or pipeline route. OSLDF2-332

The analysis needs to be based on a geotechnical report that addresses the current project, the whole of the phase 1 project, as well as the whole of the action. This is particularly important given that the existing Geotechnical Report identifies the need for slope remediation, including the need to rebuild slopes east of the well pads regardless of whether or not retaining walls are utilized (page L-21) and this additional remediation grading was not addressed in the Revised CUP Site Plan submitted by the applicant (see discussion in Section 2.3.7 of this comment letter). The information contained in the Geotechnical Report thus provides information that calls into question the limits of grading described in the Revised DEIR. As a result, the Revised DEIR should include the following additional mitigation measure, which is also discussed under biological resources: OSLDF2-333

Additional Required Mitigation Measure: If it is determined during review of a project-specific geotechnical report or project plans that the cut, fill or soil export or grading or landform modification amounts will be greater than described in the Revised DEIR, then no project permits will be issued and the project will be subject to supplemental environmental review prior to any action which would allow the project to move forward. OSLDF2-334

The Revised DEIR does not provide specific evidence to support the conclusion that impacts would be reduced to a level considered less than significant via the mitigation measures. Since these measure do not address the whole of the action, the potential for unmitigated impacts remains. OSLDF2-335

One of the concerns of an apprehensive citizenry is the potential for the proposed project, and its wells in close proximity to an active fault, to result in increased seismic activity. The Revised DEIR needs to address the potential for oil and gas extraction and particularly water reinjection to affect seismic activity. According to Dr. Michael Blanpied Associate Coordinator USGS Earthquake Hazards Program:

> "Yes, oil drilling as well as other fluid-related activities in boreholes (e.g., geothermal production) can change the stress on faults in the area, and induce earthquakes, due to the extraction of fluids or the injection of fluids (water may be pumped in, for example). Most times those are small earthquakes directly around the production site, but occasionally they can

OSLDF2-336

> be big enough to be felt, and earthquakes up to the magnitude 5 range have been created through fluid injection into boreholes. It is a subject of research whether it's possible for larger quakes to be induced." *(See:* http://www.washingtonpost.com/wp-dyn/content/discussion/2010/03/08/DI2010030802570.html)

According to "Seismicity in the Oil Field" (Vitaly V. Adushkin, Vladimir N. Rodionov, Sergey Turuntaev and Alexander E. Yudin): "By the 1960s, it became clear that deep injection of fluid could also cause seismicity." "Some 40 examples are known in which reservoir production caused significant changes in the seismic activity of a neighboring region." The Revised DEIR should address this concern on the part of the public. OSLDF2-337

Page 2-40 indicates that fracturing or fracking techniques will not be used in this oil field by the project applicants. If fracturing or fracking is going to be used as part of the phase 1 project, it needs to be addressed in the Revised DEIR. Failure to address fracturing or fracking, if is will be used, would be a fatal flaw of the Revised DEIR. If it is not going to be used, this needs to be clearly stated in this section of the Revised DEIR and, given public concern over the issue of fracking, a mitigation measure prohibiting fracking needs to be included in the Revised DEIR: OSLDF2-338

Additional Required Mitigation: The use of fracturing or fracking procedures and practices is prohibited for extraction of oil, gas or other resources included in the Lease Agreement or Amendment, or as part of any activities within the Habitat Preserve or Whittier Oil Field. OSLDF2-339

Page 4.4-24 includes a nonsensical discussion of the potential impacts of mitigation measures. The Revised DEIR includes the following seemingly contradictory statements:

> Other issues areas may have proposed mitigation measures that could produce increased impacts to geological resources if they are implemented. This section discusses those potential mitigation measure impacts.
>
> None of the mitigation measures proposed in other issue areas would change the impacts discussed in this section. Therefore, the mitigation measures would not result in additional significant impacts, and additional analysis or mitigation is not required.

This is not a true statement. For example, Noise Mitigation N-2a requires enclosing the drill rig area in soundproof barriers 30 feet high on the south and west sides and Mitigation N-4 requires installing a secondary, 16-foot tall sound wall on the south, west and north sides of the gas plant. The feasibility/seismic safety of these structures, which are mitigations, has not been evaluated in a geotechnical report or addressed in this section of the Revised DEIR. The Geotechnical Report identifies the need for drilled piles (page L-22) to support some of the structures. Noise impacts associated with construction of piles needs to be evaluated as part of OSLDF2-340

the noise analysis contained in the Revised DEIR. The Geotechnical Report identifies the need for rip-rap (page L-29). The potential environmental impacts of installing rip-rap within the Habitat Preserve and streambed needs to be evaluated in the Revised DEIR.

The Revised DEIR needs to address the cumulative increase in oil drilling activity within the Whittier Field more directly. OSLDF2-341

The potential for **significant unmitigated geological impacts** to structures due to earthquakes, landslides and other hazards which are present on the larger project area remains and has not been adequately addressed in the Revised DEIR. OSLDF2-342

5.2.5 Noise and Vibration

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-343

Page 4.5-11 The Revised DEIR states that baseline noise monitoring was conducted in December of 2009. The existing setting for purposes of CEQA is the environment at the time the NOP is issued. It does not appear that any noise monitoring was conducted on Penn Street in the area that would be impacted by project truck noise during operations and construction. Failure to conduct noise readings to verify the noise estimates from modeling in this area would appear to be a fatal flaw in the analysis. OSLDF2-344

Similarly, the Revised DEIR should include noise measurements along the North/Landfill Access Road alignment in the area where gnatcatcher nesting has been documented. The Revised DEIR should include additional measurements within the Preserve. The Revised DEIR should include measurements at the school and ranger residence. OSLDF2-345

Page 4.5-13 Please specify the noise mitigation measures imposed on the Honolulu Terrace facility in 2006. Are these same mitigation measures being applied to the proposed project? If not, mitigations may be inadequate to address noise issues. OSLDF2-346

Please provide 24-hour noise readings at both the Honolulu Terrace and Sycamore Canyon facilities? It should be noted that both of these are much smaller facilities. OSLDF2-347

Page 4.5-17 The City of Whittier Municipal Code text that prescribed specific noise limits, similar to the County Code was replaced in January of 2010 with language which is more general in nature and which does not prescribed specific noise limits. Please describe this change, the reasons for it, and specify the nature of the CEQA analysis that was conducted for this change in the Municipal Code in the Revised DEIR. This section of the Revised DEIR should provide more detail on the noise limitations imposed by this section for the Municipal Code. For example:

Section 83.20.40 of the City's Municipal Code - Loud, annoying and unnecessary noises—Enumerated – of the City's Municipal Code states, in part (emphasis added) that:

> The city council finds the following to be loud, annoying and unnecessary noises, which are hereby declared to be in violation of this chapter; this list is deemed illustrative and shall not be construed in any way to be an exclusive or all-inclusive list of the noises prohibited by this chapter, it being the intent and purpose of this chapter to include and prohibit all noises of the character described in this section. Where no specific distance is set for the determination of audibility, reference to noise disturbance shall be deemed to mean plainly audible at a distance of one hundred feet from the real property boundary of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on the public right-of-way, public property, or private property open to the public. References to "adjacent" or "neighboring" residences or units in this section shall mean those residences or units located next to or in close proximity to the source of the noise, and no specific distance standard shall be required for such locations. OSLDF2-348
>
> J. Noise in Proximity to Schools, Courts, Churches or Hospitals. The creation of any excessive noise on any street adjacent to a school, institution of learning, church or court while such facilities are in use, or adjacent to any hospital which unreasonably interferes with the work of the institution or which disturbs or unduly annoys patients of the hospital; however, this subsection shall not apply unless conspicuous signs are displayed in such streets indicating that there is located in the vicinity a school, hospital, court or church.
>
> M. Late night disturbances of any kind that are plainly audible by inhabitants or occupants of any adjacent or neighboring residential properties or units, or are plainly audible at a distance of fifty feet from a real property boundary, that occur during nighttime hours, shall be prima facie evidence of violation of this subsection.

Page 4.5-20 The Revised DEIR needs to include thresholds for impacts to the Habitat Preserve and associated biological resources. Given that the Preserve is not a neighborhood park, but an area for largely quite uses, the analysis of impacts to OSLDF2-349

parklands should be based on the County's standard for Noise-sensitive areas of 45 dBA. This is particularly true given the land was purchased with Proposition A funds, and County approval regarding Proposition A reparation is required.

As we previously commented, Whittier Area Co Op Education operates the school located at 8036 Ocean View Avenue. Given the proximity of a school use to the phase 1 project site, the Los Angeles Unified School District (LAUSD) noise standards for school sites should also be used for purposes of analyzing impacts to the nearby school use, as they provide standards for interior noise levels. The LAUSD Office of Environmental Health and Safety (OEHS), has established maximum allowable noise levels to protect students and staff from exposure to excessive noise impacts in terms of hourly Leq. The Standard states that: "Where economically feasible, new school design should achieve classroom acoustical quality consistent with the American National Standards Institute (ANSI) standard and in no event exceed the current California High Performance Schools (CHPS) standard of 45 dBA." The DEIR analysis should address whether acceptable interior noise level at the nearby school can be maintained. OSLDF2-350

Page 4.5-22 What assumptions about construction equipment and activities were included in the analysis? Did the analysis include pile driving as specified in the geotechnical report for the Revised CUP application version of the proposed project? Where is this specified? If not, the analysis is inadequate. OSLDF2-351

Mitigation N-2a and N-2b

These mitigation measure need to specify on-going noise monitoring at the nearest sensitive receptors and that all drilling activates would cease if the applicable noise standards cannot be met. The Noise Reduction Plan should be reviewed and approved by the City prior to the issuance of any permits for the project. The mitigation measures also need to specify that if the Noise Reduction Plan indicates that the applicable noise standards can not be met, that no grading or other permits for the proposed project shall be issued and the project would be subject to subsequent CEQA review prior to issuance of any permits for the project. In the absence of these additional provisions, the mitigations as worded constitute improper deferral of mitigation. OSLDF2-352

The impacts of these mitigation measures need to be addressed in other sections of the Revised DEIR, such as aesthetics. OSLDF2-353

Please provide comparable with-and-without project and with-and-without mitigation tables and figures at all receptor sites (once the analysis has been corrected to address impacts in the Penn Street area and along the North/Landfill Access Road. OSLDF2-354

Impacts from the North/Landfill Access Road

The Revised DEIR fails to show the existing and with project noise contours along the North/Landfill Access Road or in the vicinity of Penn residences. Failure to analyze the effect of the North/Landfill Access Road is a fatal flaw of the noise analysis. The tables (such as 4.5-14) and figures (such as 4.5-9) fail to include the effects of the full phase 1 project, which includes the Landfill Access Road. This is a fatal flaw of the Revised DEIR. OSLDF2-355

Impacts to the Preserve and Wildlife

Section 4.5 of the Revised DEIR totally fails to address noise impacts to the Habitat Preserve and the wildlife in the preserve. This is a fatal flaw of the analysis and the Revised DEIR. OSLDF2-356

Table 4.2-3 of in Section 4.-2: Biological Resources includes an estimate of habitat within the 60dBA noise contour. The noise analysis fails to provide the analytic connection or explanation of how this number was derived. Is this noise contour pre or post mitigation? Based on the analysis in Section 4.5 of the Revised DEIR, the noise analysis did not address noise impacts along the North/Landfill Access Road. It thus appears that Table 4.2-3 understates the acreage within the Preserve impacted by project noise. Table 4.2-3 needs to be corrected to address both construction and operational noise along the North/Landfill Access Road. Biological Resource impacts in the Revised DEIR are thus understated. OSLDF2-357

5.2.6 Aesthetics and Visual Resources

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-358

The Revised DEIR identifies Significant Unmitigated Impacts associated with views of the access roads for the Proposed Project with Loop Trail Road Alternative (see ES-16), however, the proposed project includes the Loop Trail Road for emergency access and indicates on page 2-25 the all roads associated with the project would be paved. Why is the Loop Trail Road a significant unmitigated aesthetic impact for the alternative, but not for the proposed project? This makes no sense. Clearly the paving and expansion of the Loop Trail Road results in a **Significant Unavoidable Impact** for both the proposed project and the Alternative. OSLDF2-359

As we previously commented, as part of the setting section, and in order to help the reader to visualize what the well pad areas will look like, we would suggest including google earth views of the other Matrix operations in the area, either in the aesthetics section, the cumulative projects section, or elsewhere in the document, as well as the type of rendering contained in Matrix's Youtube video (see **Figure 4**). Matrix's simulation more accurately shows the facility as a walled fortress of paving. This is particularly important because the wells are often described as being located in underground cellars. This may give the public and decision-makers the impression that they are not visible and are essentially camouflaged. This is not the OSLDF2-360

case. **Figures 15, 16 and 17** which provide views of Matrix's Honolulu Terrace and Sycamore Canyon sites are provided by way of example.

We would note that the Sycamore Canyon facility currently has only 9 wells, with a final 10th well under construction. According to http://whittieroil.com/frequently-asked-questions (see EXHIBIT C), Matrix indicates that it currently has 25 active wells in the area, which would imply 16 wells at the Honolulu Terrace site. Please confirm the number of wells at the Honolulu Terrace site. OSLDF2-361

According the website Matrix's existing operations produce approximately 350 barrels of oil per day along with natural gas. The Sycamore Canyon facility with 9 wells thus has less than a sixth of the total phase 1 wells. Combined Matrix's two facilities pump 350 barrels of oil per day compared to the 10,000 bpd that would be pumped and processed within the Habitat Preserve during the first phase of the proposed project. OSLDF2-362

It appears that the aesthetic analysis may be based on the Revised CUP version of the phase 1 project. Figures 4.6-10, 4.6-11 and 4.6-14, for example, appear to show the Revised CUP version of the proposed project, rather than the proposed phase 1 project analyzed in the Revised DEIR. Which version of the phase 1 project was used in conducting the analysis and for the photo-simulations? The analysis should be based on the current version of the phase 1 project. The views do not seem to include proposed phase 1 fencing/walls or comprehensive with and without mitigation views. The analysis thus appears to convey an inaccurate sense of the likely impact of the proposed phase 1 project. OSLDF2-363

Matrix Oil provided a far more detailed photo-simulation of the Revised CUP version of the proposed project in it's youtube video available at:
http://www.youtube.com/watch?v=tLmBbydNKTk&feature=player_embedded
The Revised DEIR should provide a similar level of information for the proposed phase 1 project in order to provide the reader to a more accurate, with and without project view of the facilities, and associated landform modification. More comprehensive with and without project and with and without mitigation information needs to be provided in the revised DEIR. OSLDF2-364

Has the use of berms been included in the calculation of landform modification and associated biological resource impacts of the proposed project? Figure 4.6-13 shows a very substantial berm/landform modification. Failure to include this additional landform modification in the calculation of biological resource, air quality, geotechnical, etc. impacts would be a fatal flaw of the revised DEIR. OSLDF2-365

What is the biological resource impact of the warning lights that would be placed on the drilling rig? This needs to be addressed in the biological resource section of the Revised DEIR. OSLDF2-366

The aesthetic resource analysis is incomplete and fails to provide the reader or the decision-makers with a sense of the full magnitude of the aesthetic and visual resource impacts of the phase 1 project. OSLDF2-367

FIGURE 15:
MATRIX OIL'S HONOLULU TERRACE FACILITY

FIGURE 16:
VIEW OF MATRIX OIL'S SYCAMORE CANYON FACILITY

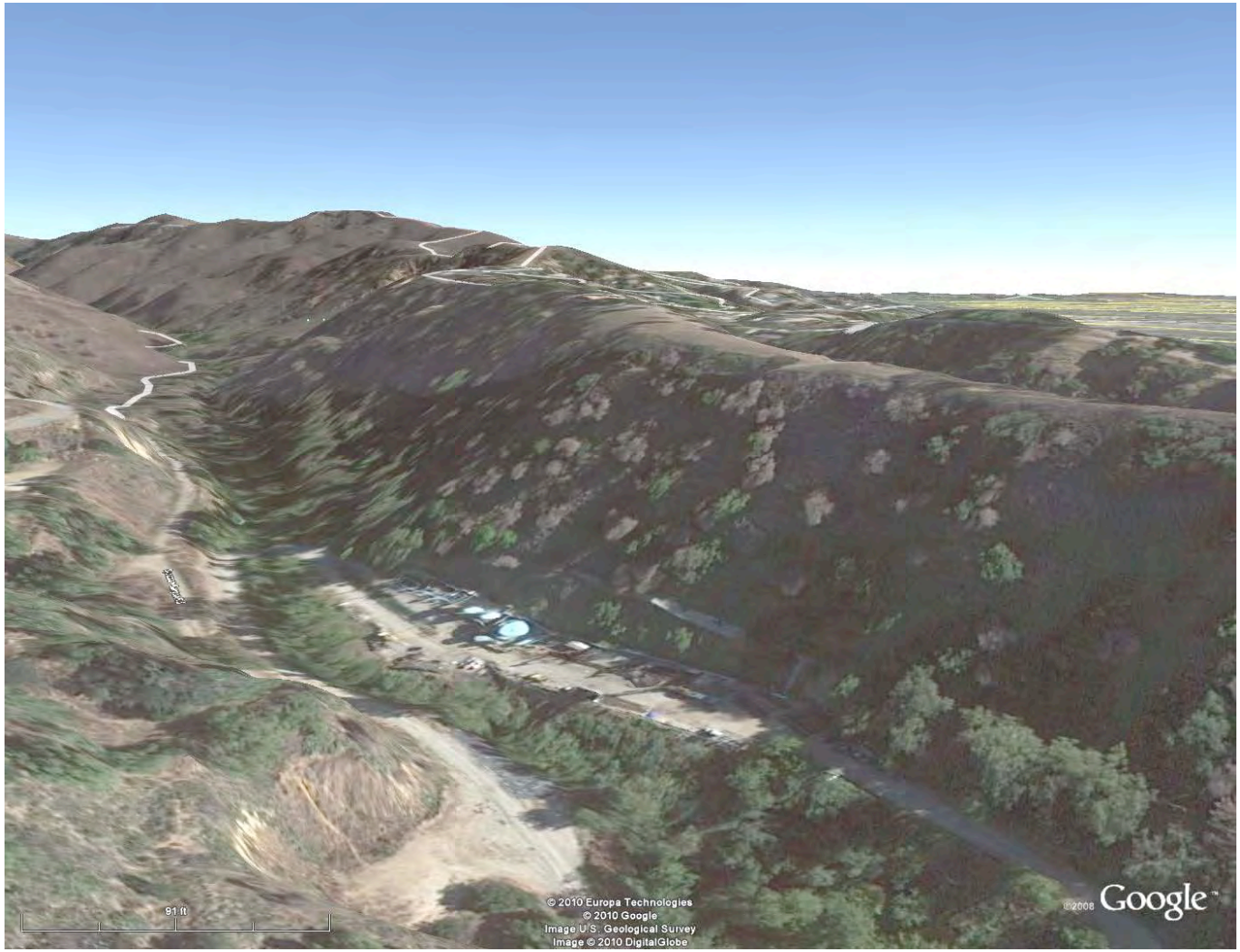


FIGURE 17:
VIEW OF SYCAMORE CANYON AND MATRIX FACILITY

5.2.7 Transportation and Circulation

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-368

The Revised DEIR states that a PCE of 2 was applied to truck trips, but the trip generation in the Traffic Study in the Appendix E does not appear to reflect this. If it's not right in the Traffic Analysis in Appendix E, it's not right in the body of the Revised DEIR. The Penn Street access to the landfill can hardly be classified as between flat and rolling. Use of a PCE of 2 would therefore not appear appropriate for these intersections. The Traffic Analysis and the body of the Revised DEIR needs to make clear the assumptions about the number and types of trips by phase that would be using the different project accesses. It is almost impossible to review the Traffic Analysis and this section of the Revised DEIR, due to a failure to provide clear information about trip assumptions. Requiring the reader to infer the assumptions by reconstructing them from the turning movement diagrams in the Traffic Study in Appendix E is unacceptable. OSLDF2-369

Table 4.7-14 It is unclear where the maximum phase 2 trip number of 396 comes from – what numbers have been added together? The total of all the trips in phase 2 is 704 not 396 per Table 4.7-14. Since the total trips are 704, not 396 the traffic analysis understates impact unless there is a mitigation which mandates which activities can and cannot occur concurrently, such that the total trips from this phase does not exceed the assumed 396 trips (adjusted for PCE). OSLDF2-370

Table 4.7-16 and Table 4.7-17 should provide information for all of the intersections and segments, not just the significant impacts. OSLDF2-371

How will mitigation measure T-1c be enforced? The mitigation is inappropriate since the analysis of impacts was based on PCE. Allowing for 40 daily round trips would result in more trip-making than assumed in the analysis and a greater level of impact. Since this measure allows for more trips than resulted in the significant impact, impacts remain Significant at Catalina and Mar Vista during phase 1. Since the enforcement mechanism is unclear for the later phases, impacts throughout the life of the project also remain Significant at this intersection. OSLDF2-372

How has the analysis accounted for the fact that landfills access is only 8 hours per day? The Revised DEIR needs to address the issue of landfill access. OSLDF2-373

As written, mitigation measure T-1f is a case of improper deferral of mitigation and analysis. As written, there is nothing that assures that this measure would reduce impacts on Penn Street and that area of the City. The measure has no teeth or standard which would ensure mitigation below a level that is significant. Impacts remain significant. OSLDF2-374

The Revised DEIR fails to adequately address the concerns of Penn Street Residents regarding traffic and parking impacts associated with Penn Street access. Please address the comments received on the NOP. OSLDF2-375

Mitigation measure T-2(9) requires the relocation of transit stops. The Revised DEIR fails to address whether this will result in a significant impact on transit services. OSLDF2-376

The Revised DEIR fails to address how access would be handled via the North/Landfill Access Road, given that the landfill is only open from 7:30 AM to 3:00 PM Monday through Saturday and is gated when closed. OSLDF2-377

The Revised DEIR fails to address the following CEQA issue, would the project: substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Are there any safety issues associated with adding project traffic to an operating landfill? The design of the North/Landfill Access Road and Loop Trail road needs to be reviewed to ensure that turns are safe, passing lanes are adequate, and the roadway design will not result in a hazard to either the trucks, pipeline pedestrians or biological resources. OSLDF2-378

The Revised DEIR does not clearly describe the access onto Colima Road from the Loop Trail that would be provided for emergency access, or address any safety issues associated with this roadway. OSLDF2-379

The Revised DEIR fails to adequately identify and address CMP intersections in Whittier and along potential project truck routes. OSLDF2-380

The Revised DEIR fails to address the following CEQA issue, would the project: conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? OSLDF2-381

5.2.8 Hydrology and Water Resources

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-382

Page 4.8-2 This page states that the La Canada Verde Creek is approximately 75 feet from the Project Site. How close is it to the project roadway. The project plans in Appendix A appear to indicate the placement of rip-rap within the creek as part of the project. The Revised DEIR should include an evaluation of the effect of any creek or creek bank modifications on stream flows. OSLDF2-383

The setting section should make reference to the two watersheds in which project facilities are located per the RMP. OSLDF2-384

Page 4.8.4	The statement that "any increase in runoff could be mitigated onsite to avoid any adverse impacts to downstream storm drain facilities" is not supported by any analysis.	OSLDF2-385
	The acreage of disturbance is not consistent with other acreage estimates elsewhere in the Revised DEIR.	OSLDF2-386
Page 4.8-12	Mitigation measures WR-1a and WR-1b are examples of improper deferral of analysis and mitigation. Since the on-site and roadway drainage systems have yet to be designed, it is unknown whether these will require additional landform modification and habitat disturbance, beyond what has been analyzed in the revised DEIR.	OSLDF2-387
	New Mitigation: A mitigation measure is required specifying that the drainage plan shall be reviewed and approved by the City prior to issuance of any permits, the review shall determine if additional grading or habitat disturbance would occur as a result of the design of the drainage facilities. If the drainage for the site, pipelines and roadways would result in additional disturbance or grading beyond that described in the Revised DEIR, no permits for the project shall be issued and the project shall be subject to additional environmental review.	OSLDF2-388
	Mitigation measure WR-1c doesn't require gravel roads and parking area, it merely says that gravel roads and parking would limit downstream runoff. As written, the mitigation does nothing. Will the roads and parking be paved or will they consist of gravel? Mitigation Measure WR-d is non-specific and, as currently written, is a case of improper deferral of mitigation. Similarly Mitigation Measures WR-1f and WR-1g are non-specific. Mitigation Measure WR-1g - monitoring without action does nothing.	OSLDF2-389
	There is no analysis in the Revised DEIR to support the finding that hydrology impacts would be reduced to a level considered less than significant, by the very general and non-specific and often deferred mitigations contained in Section 4.8 of the Revised DEIR.	OSLDF2-390
Measures WR-2a WR-2b	Again this is a case of improper deferral of mitigation. The measure specifies limiting, grading, clearing and grubbing to preserve existing vegetation. Given that the proposed project will disturb 21.57 acres of non-disturb habitat and affect an additional 9.01 disturbed acres and involve 180,000 cubic yards of soil movement, the ship has pretty much sailed on complying with this element of the mitigation measure. The measures should require review and approval of any plan and a mechanism for halting the project if appropriate standards cannot be met.	OSLDF2-391

Page 4.8-19	The Revised DEIR states that none of the wells well be drilled through the Pleistocene aquifers of the Lakewood and San Pedro formations, but no evidence or analysis is provided to support this conclusion.	OSLDF2-392
Page 4.8-20	The Revised DEIR states that "the applicant has proposed to re-inject produced water at a rate of 1,000 psi. This substantially reduced injection pressure (from original reservoir pressures) would prevent additional stress on the formation that might result in frac-outs into overlying Puente Formation strata." There is no analysis or data presented to support this statement.	OSLDF2-393
	Has the Revised DEIR been sent to DOGGR for review?	OSLDF2-394
Measures WR-6a and WR-6b	The phrase "where feasible" renders these measures meaningless.	OSLDF2-395

The Revised DEIR either fails to address or does not provide an adequate analysis of the following CEQA issues:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? OSLDF2-396

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

The analysis of drainage and hydrology contained in the Revised DEIR is thus totally inadequate and fatally flawed, largely because the project has yet to prepare a drainage plan. A drainage plan should have been required as part of the CUP application submittal. OSLDF2-397

5.2.9 Wastewater

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-398

Mitigation Measure WAS-1 improperly defers analysis. If mobile sanitary facilities are required, this will result in additional truck trips. These trips have not been addressed in the Traffic Study for the proposed project. The traffic analysis therefore underestimates likely potential project impacts. OSLDF2-399

Have the truck trips to remove storm water been included in the Traffic Analysis? If not, the traffic analysis likely understates project impacts. There has been now showing that the detention area is sufficient to accommodate a peak storm event. In the absence of such a showing, impacts remain **Significant**. OSLDF2-400

5.2.10 Land Use and Policy Consistency

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. The findings of this section of the Revised DEIR defy common sense and lead the reader to question the veracity of the Revised DEIR. OSLDF2-401

The analysis of land use and policy consistency contained in this section of the DEIR is bizarre. It is incomprehensible that the analysis finds the project consistent with the City's General Plan, Municipal Code and Zoning, or with the Resource Management Plan for the Habitat Authority. Clearly the proposed phase 1 project is incompatible with each of these key policy documents. OSLDF2-402

Whittier General Plan

Whittier General Plan - By way of example, in terms of the City's General Plan, it is clear that the proposed project is inconsistent with a number of Goals and Policies. Here are just a few examples: OSLDF2-403

Environmental Resource Management Element

"Goal 1 – Preserve or conserve natural and cultural resources that have scientific, educational, economic, aesthetic, social and cultural value."

Despite the findings of the Revised DEIR, the proposed project would result in Significant Unavoidable aesthetic and biological resource impacts as detailed in this OSLDF2-404

comment letter. It would result in impacts to federally designated Critical Habitat and RMP Core Habitat. This is a violation of Policy 1.3.

"Goal 3 – Secure a safe, healthful, and wholesome environment through careful planning and preservation of open space resources."

The project would result in the loss of open space area. The proposed project also violates Policy 3.1 to "protect existing wildlife habitats thorough the preservation of open space" due to impacts to Critical and Core Habitat. The DEIR admits to 6 Significant Unavoidable Impacts and we have documented a number of other Significant Unavoidable Impacts in this letter. Policy 3.2, which states, "future hillside development will be permitted or approved only if it involves minimal adverse impacts on the environment and natural topograph," is also clearly violated by this project. OSLDF2-405

The proposed phase 1 project is clearly inconsistent with the City's General Plan OSLDF2-406

General Plan Consistency Analysis: The project is inconsistent with the following policies cited in the Revised DEIR, or the assessment in the Revised DEIR is inaccurate for the following reasons:

Landuse Element - Policy 1.1: Although the project would pay some monies to the Habitat Authority, this does not remove the impacts of the project on the Preserve. Policy 1.2: since it is unclear how much of any revenues would accrue to the City vs the County and how those revenues would be used or restricted, the statement that oil revenues "would increase potential for civic improvements and future investment in the City" is without merit. Policy 1.3: This comment letter documents the on-going CEQA violations that have been a part of the City's review process for this project. Policy 4.1: a project that involves 40 acres of impacts to a Habitat Preserve is hardly compatible with the environment. Policy 4.4: there has been no demonstration that the City has worked with county, state and federal agencies on the design and review of this project. Policy 4.5: the applicant should have submitted detailed construction drawings and grading plans as part of the CUP application. Policy 5.1: the proposed project would reduce recreational opportunities within the City. Policy 6.4: the project does not promote the preservation of important ecological resources since it impacts critical and core habitat. OSLDF2-407

Environmental Resource Management Element Policy 1.2: Per appendix A, the project would result in the export of 149,000 cubic yards of soil, not 87,500. The analysis appears to be based on the Revised CUP version of the project, not the phase 1 project described in Chapter 2 of the Revised DEIR. Export of 149,000 cubic yards of soil hardly constitutes soil conservation to retain native vegetation, etc. Policy 1.3: the project is located and would divide core habitat and is thus OSLDF2-408

not consistent with this policy. Policy 1.4: rather than rehabilitate the oil fields for open space recreation or beneficial resource conservation, the proposed project reintroduces oil drilling within a habitat preserve and is therefore not consistent with this policy.

Need we say more? Clearly the analysis contained in Section 4.11 regarding General Plan consistency is absurd and only serves to show the pro-project bias of the EIR preparers.

OSLDF2-409

The proposed project is thus clearly inconsistent with a number of General Plan goals and policies.

Whittier Municipal Code

Whittier Municipal Code – The phase 1 project is also inconsistent with a number of Municipal Code sections. For example, given the location in proximity to both a school and single-family homes, it is clear that the phase 1 project would violate Section 83.20.40 of the City's Municipal Code regarding noise. Section 83.20.40 of the City's Municipal Code - Loud, annoying and unnecessary noises—Enumerated – of the City's Municipal Code states, in part (emphasis added) that:

> The city council finds the following to be loud, annoying and unnecessary noises, which are hereby declared to be in violation of this chapter; this list is deemed illustrative and shall not be construed in any way to be an exclusive or all-inclusive list of the noises prohibited by this chapter, it being the intent and purpose of this chapter to include and prohibit all noises of the character described in this section. Where no specific distance is set for the determination of audibility, reference to noise disturbance shall be deemed to mean plainly audible at a distance of one hundred feet from the real property boundary of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on the public right-of-way, public property, or private property open to the public. References to "adjacent" or "neighboring" residences or units in this section shall mean those residences or units located next to or in close proximity to the source of the noise, and no specific distance standard shall be required for such locations.
>
> J. Noise in Proximity to Schools, Courts, Churches or Hospitals. The creation of any excessive noise on any street adjacent to a school, institution of learning, church or court while such facilities are in use, or adjacent to any hospital which unreasonably interferes with the work of the institution or which disturbs or unduly annoys patients of the hospital; however, this subsection shall not apply unless conspicuous signs are

OSLDF2-410

displayed in such streets indicating that there is located in the vicinity a school, hospital, court or church.

M. Late night disturbances of any kind that are plainly audible by inhabitants or occupants of any adjacent or neighboring residential properties or units, or are plainly audible at a distance of fifty feet from a real property boundary, that occur during nighttime hours, shall be prima facie evidence of violation of this subsection.

Requirements For A Conditional Use Permit Are Not Met - The project would not be eligible for a Conditional Use Permit since a number of the standards identified in Section 18.52.040 of the City's Zoning Code can not be met by the proposed phase 1 project, including the following requirements for a Conditional Use Permit:

"2. That the site proposed for the use has sufficient access to streets which are adequate, in width and pavement type, to carry the quantity and quality of traffic generated by the proposed use."

Pursuant to Mitigation Measure T-1e the project requires widening of Catalina Avenue north of Mar, it would require construction of the North/Landfill Access through critical habitat and the widening of the Loop Access and its connection to Colima Road to provide for emergency access. The project therefore does not meet this requirement.

"3. That the proposed use will not unreasonably interfere with the use, possession and enjoyment of surrounding and adjacent properties."

Even the DEIR admits that the proposed project will result in Significant Unavoidable aesthetic, air quality, hydrology, land use and recreation impacts. We have demonstrated the potential for a number of additional impacts. The project therefore does not meet this requirement. OSLDF2-411

"4. That the proposed use will be compatible with the permitted uses of surrounding and adjacent properties."

Even the DEIR admits that the proposed project will result in Significant Unavoidable aesthetic, air quality, hydrology, land use and recreation impacts. We have demonstrated the potential for a number of additional impacts. The project therefore does not meet this requirement.

"5. That the use will, as to location, operation and design, be consistent with the general plan, any applicable specific plan, and the Whittier zoning regulations."

As discussed earlier in this section, the proposed project is inconsistent with a number of General Plan goals and policies, and with the City's noise ordinance.

Habitat Authority's Resource Management Plan

Any project which is located within the Core Habitat Management Area of the Habitat Authority's RMP would not be consistent with the RMP, since the Core Habitat area is intended to be off-limits to public or industrial use, and to be maintained for the sole purpose of providing undisturbed habitat for wildlife.

RMP Consistency Analysis: The proposed project is clearly inconsistent with the Resource Management Plan for the Habitat Preserve. For example: Goal BIO-3: the project pads would be constructed in an area where gnatcatchers have been observed, which has been found by Lukos to contain good habitat for the gnatcatcher, and the project's North/Landfill Access Road would be constructed in proximity to a gnatcatcher nesting area. The phase 1 project would disturb at least 40.44 acres of critical habitat for this threatened species. Clearly the project is inconsistent with this goal and associated policies. The proposed project is located in core habitat which is an area intended to be protected from human activities and would effectively bifurcate the core habitat impacting the nursery function of this area. Somehow the Revised DEIR has omitted discussion of goals related to core habitat. OSLDF2-412

Endangered Species Act

Critical Habitat Designation – The proposed project would be constructed within federally designated and occupied Critical Habitat for the California gnatcatcher, which is habitat deemed by the federal government to be essential for the survival of the species. Critical Habitat designation is a component of a federal habitat conservation plan as specified in the federal Endangered Species Act. OSLDF2-413

County General Plan

The Revised DEIR fails identify that the project is located within a County ESHA or to include an analysis of consistency with the ESHA. Clearly a project with 180,000 cubic yards of earth movement is not consistency with County ESHA requirements. OSLDF2-414

Proposition A Consistency

The Revised DEIR fails to include a Proposition A consistency analysis as requested by the County of Los Angeles. As noted in the County NOP letter on the proposed phase 1 project:

Oil field development, appurtenant transmission, operations and maintenance activities would be incompatible with the specified use of lands acquired with Safe Neighborhood Parks Proposition of 1992 (Proposition A) grant monies and would constitute a disposal of the property and/or the generation of non-recreational income that would be required to conform to procedures set forth in Proposition A, the project Grant Agreement and the District's Procedural Guide for the Specified Project, and the Per Parcel Discretionary and Excess Funds Grant Programs[1]. As indicated in Appendix G to the State CEQA Guidelines, such an action constitutes a significant adverse impact related to land use that is required to be disclosed to the public and to the City of Whittier Planning Commission and City Council for their consideration in the land use decision-making process. The District's comments are expressly provided in their capacity as a Responsible Agency whose mission requires the appropriate granting, administration, and monitoring of grant monies provided pursuant to Proposition A to ensure that the specified goals approved by the voters of the County of Los Angeles are achieved, specifically in this case, the preservation, restoration, and rehabilitation of real property to serve as wildlife habitat and natural habitats and to provide public access and trails, to be held in perpetuity. OSLDF2-415

The Revised DEIR fails to include the consistency analysis requested by this responsible agency. Clearly the project, as currently described, is inconsistent with the purpose of Proposition A, as discussed earlier in our comment letter.

Given these facts, the project would result in the following additional Significant Unavoidable Impacts that are not identified in the DEIR. The project would conflict with the following applicable land use plans, policies or regulations of an agency with jurisdiction over the project, including portions of the City's General Plan, zoning and Municipal Code adopted for purposes of avoiding or mitigating an environmental effect: OSLDF2-416

- The project would conflict with the City's General Plan
- The project would conflict with the Habitat Authority's Resource Management Plan. OSLDF2-417
- The project would conflict with the U.S. Government's Critical Habitat designation of the area. OSLDF2-418
- The project would conflict with the County's ESHA designation for the project site. OSLDF2-419
- The project would conflict with Proposition A. OSLDF2-420

5.2.11 Fire Protection and Emergency Services

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-421

Page 4.12-2 The Revised DEIR should provide information on the fatal Honolulu Terrace fire and the response to that 2005 fire at Matrix's facility. That fire burned for more than a day until a special crew was brought in from Texas to extinguish it. (See: Whittier Daily News Article from 3/12/2008: "Matrix Likely To assist In Oil Drilling"). The Revised DEIR needs to detail the level of effort and cost of fighting this type of fire. The Revised DEIR should also note that this fire was located at a much smaller Matrix facility, which is not located in a Preserve in an very high fire severity area. Given that a fire at the proposed phase 1 facility could similarly require a special crew to be brought in from Texas to extinguish it, the Revised DEIR should provide projections of the likely damage from such a fire. The statement on page 4.12-2 that the fire department has indicated that: "minimal response requirements have been associated with these facilities since the 2005 Honolulu Terrace fire" is like saying that the banks have required minimal infusion of public funds since the bailout – it kind of misses the point. These kinds of statements only serve to illustrate the non-objective pro-project nature of the Revised DEIR. OSLDF2-422

Page 4.12-17 This page states (emphasis added):

> Based on preliminary design drawings, the site appears to comply with <u>most</u> equipment spacing requirements. However, detailed design drawings are not yet available for the Project. Some equipment spacing could still create impacts, such as the location of the flare relative to process units or atmospheric storage tanks and distances from public areas, such as the hiking trails near the Truck Loading Facility. Inadequate equipment spacing would be a significant impact. OSLDF2-423

Since detailed design drawings are not yet available for the Project, potential design-related impacts should classified as **significant and unmitigated**. Why weren't detailed design drawings provided in the CUP application materials, as required for City CUP applications? Why has the City accepted the application for processing, when it does not provide sufficient level of detail to allow for an assessment of compliance with fire regulations? Since the changes in the project that may be required to comply with fire safety-related requirements are unknown, there is the potential for changes in the project to result in more severe or additional significant environmental impacts.

This page states:

> Firewater, water used to fight fires, would be obtained from the City of Whittier connection at Catalina Avenue and distributed to the three sites via the backbone pipeline system. Current requirements by NFPA and the LACoFD indicate that firewater supplies should be from 3,000 to 5,000 gpm. Maximum flow capacities at the Catalina Avenue City of Whittier connection are estimated to be 840 gpm at 80 pounds per square inch gauge. This would not be sufficient to meet NFPA or LACoFD requirements and this would be a significant impact.

Mitigation Measure FP-1a provides:

> *FP-1a The oil field operator shall provide fire water supplies from either the Murphy Station 10-inch line or Suburban Water Supply along Colima Road (both of which are nearby and have sufficient supplies), or some other source, that provides sufficient water supply rates and duration to comply with codes and the LACoFD. Any new pipeline installations shall avoid any sensitive habitats (coastal sage scrub or riparian) and will be placed in non-native grassland or disturbed communities. Any non-native grassland in which new pipeline installations are placed shall be returned to its original state after pipeline installation.*

OSLDF2-424

Impacts associated with the construction of this water line have not been addressed in the Revised DEIR. The actually alignment remains unspecified as the water supply could come form Murphy Station or the Suburban Water Supply along Colima Road or some other unspecified source. Failure to specify the source of adequate fire flows and the pipeline route is a fatal flaw of the project description.

There is no showing in the Revised DEIR that provision of the required water supply could be accomplished so as to "avoid any sensitive habitats (coastal sage scrub or riparian) and will be placed in non-native grassland or disturbed communities" as required by the mitigation measure. Therefore it is unknown if the mitigation is feasible. The Revised DEIR fails to quantify or assess the potential impacts of this component for the phase 1 project. The air quality, noise, biological resource, etc. impacts of the proposed project are thus understated in the Revised DEIR and the Revised DEIR's analysis is fatally flawed. In the absence of demonstration that compliance with the mitigation measure is feasible, impacts remain **Significant and Unmitigated**.

OSLDF2-425

Page 4.12-16	One of the thresholds of significance is if "the project site does not have an emergency response plan." The proposed project does not have an emergency response plan and no emergency response plan is included in an Appendix to the Revised DEIR; this is a **Significant Impact** of the proposed project. Mitigation Measure FP-1d requires the operator to develop such a plan, by provides no review or approval requirement and specifies no date/timing for provision of such a plan. As written the mitigation measure is inadequate and an improper deferral of mitigation.	OSLDF2-426
Mitigation FP-2a	Does the project as designed and described in Chapter 2 comply with this mitigation measure? If not, what would be the additional impacts of compliance?	OSLDF2-427
Page 4.12-20	All of the discussions of "Other Issue Area Mitigation Measure Impacts" contained in the Revised DEIR are inadequate. Examples are provided in this comment letter as to why.	OSLDF2-428
Section 4.12.6	This statement is conclusory in nature. No analysis or data to support the conclusion has been provided.	OSLDF2-429

The analysis of potential fire and emergency service impacts is fatally flawed because it is based on an inadequate project description. OSLDF2-430

5.2.12 Public Services and Utilities – Solid Waste

Please see our prior comments on the Original DEIR and provide responses to the applicable concerns expressed in those prior comments. OSLDF2-431

Page 4.13-2	The Revised DEIR needs to provide more information regarding the Savage Canyon Landfill including its permitted and remaining capacity, days and hours of operation, the fact it is gated after its 3:00 p.m. closure, its 350 ton per day limit, and the nature of the materials it will accept.	OSLDF2-432
	The Revised DEIR should disclose the distance to the facilities that accept hazardous waste and greewaste.	OSLDF2-433
Section 4.13.2	The Revised DEIR should discuss the permit and regulatory constraints that could affect either use of the Landfill Access Road or location of project facilities within the Landfill per the Landfill Site Alternative. Chapter 6 makes reference to permit and regulatory constraints but fails to identify them. They need to be	OSLDF2-434

discussed in this section of the Revised DEIR and the Revised DEIR needs to analyze whether they pose any feasibility issues for the Landfill Access Road.

Section 4.13.4

The Revised DEIR uses a landfill impact threshold of 5 tons per week. The Revised DEIR fails to address the disposal requirements for the soil to be exported from the project site. Not only does the amount of soil to be exported exceed the specified threshold of significance, it exceeds the daily capacity of Savage Canyon Landfill which is 350 tons per day. (149,000 cubic yards = 24,833.33 cubic yards per month = 962.53 cubic yards per day, six days a week. Earth/soil typically weights about 1.35 US tons per cubic yard or 1.227 metric tons per cubic yard.) This is a **Significant Impact** of the proposed project which is not identified in the Revised DEIR. OSLDF2-435

How many cubic yards per day can be accommodated at the Savage Canyon Landfill given the amount of tonnage of waste per day currently being accepted at the landfill and the tonnage represented by 962.53 cubic yards per day? Where will this excess soil be taken? How will disposal of all this soil at the Savage Canyon Landfill affect the life and year of closure for the landfill? OSLDF2-436

The Revised DEIR needs to include a table of the amount of greenwaste, soil, trash and contaminated waste that will be generated as a result of construction of the various project components, as well as project operation. OSLDF2-437

The analysis of the project's soil waste impacts is completely and totally inadequate. Grading of just the consolidated site will result in an amount of soil export sufficient to fill the Pasadena Rose Bowl 37% of the way full. This is a lot of dirt, some of which is likely to be contaminated. Clearly the phase 1 project will result in **Significant Unmitigated Landfill Impacts**. What is the likely affect of the proposed phase 1 project on the life of the landfill? OSLDF2-438

In addition, the Revised DEIR completely fails to address the compatibility of the proposed phase 1 Landfill Access Road with operations at the Savage Canyon Landfill. Given the hours of operation of the Landfill, how will project traffic be handled? Are there any operational issues? Given that the Landfill is gated, use of the roadway during hours the Landfill is close present potential security and operations issues that are completely ignored in the Revised DEIR. This needs to be addressed either in this section or in the Land Use section of the Revised DEIR. OSLDF2-439

The compatibility of the Landfill Access Road with the unidentified landfill permit and regulatory requirements mentioned in Chapter 6 needs to be addressed either in this section of the Revised DEIR or in the Land Use section of the Revised DEIR. OSLDF2-440

5.2.13 Recreation

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-441

Figure 4.14.3 This figure does not show the current version of the phase 1 project. OSLDF2-442

Page 4.14-10 The following statement is inaccurate:

> The proposed Project would not include new recreational facilities, would not require the reconfiguration of recreational trails, and would not adversely affect the physical environment, except for approximately 9 months during the Design and Construction Phase (Phase II) for the installation of the underground oil and gas pipeline.

OSLDF2-443

The phase 1 project includes the paving and widening of the Loop Trail; this is a reconfiguration of a recreational trail. The impact of this modification on the recreational experience needs to be addressed in the Revised DEIR. The experience of walking on a paved roadway is not the same as the experience of walking on a trail through nature. This is permanent a **Significant** recreational impact of the proposed project. The closure of the Trail during construction would be a **Significant short-term Impact** of the phase 1 project and should be identified as such.

In addition, the Revised DEIR needs to address how access to the Loop Trail will be provided for fire trucks. What modifications will take place to provide access from Colima? Will this impact the existing trail parking? OSLDF2-444

Mitigation Measure BIO-4n mandates:

> BIO-4n Recreational access to the Arroyo San Miguel Trail shall be closed during construction or drilling activities at the Drill Pad Site. To continue providing recreation access to the Arroyo San Miguel Trails (on the east side of Colima Road), the Applicant shall develop additional recreational access, in coordination with the Habitat Authority, to the Arroyo San Miguel Trail by any of the following or equivalent: (1) enhancing the parking area on the east side of Colima Road; (2) developing the parking area along La Flore Drive, approximately 1 mile east of Colima Road; or (3) develop pedestrian access along Colima Road from the Preserve parking area (on the west side of Colima Road) utilizing the new signalized intersection.

OSLDF2-445

This mitigation will clearly have an effect on recreational patterns. The statement on page 4.14-12 regarding the impact of mitigation measures is thus clearly not true.

The Revised DEIR needs to answer the question: how will closure of the Arroyo San Miguel Trail affect access to the Arroyo Pescadero Trail? How will closure on the Arroyo San Miguel Trail in combination with construction of the emergency access connection to the Loop Trail affect access to the Arroyo Pescadero Trail and impact recreational uses in the area? OSLDF2-446

Page 4.14-10 The proposed project is located in a habitat preserve, not an active park with soccer fields. The use of a 70 dBA threshold for assessing noise impacts to recreational users is inappropriate. The County of the Los Angeles noise standard of 45 dBA is more appropriate. OSLDF2-447

Section 4.14.5 Recent drilling at and modifications to the Sycamore Canyon facility has affected the recreational experience in that location. The cumulative impact of drilling in the Preserve on the recreational experience of users needs to be addressed. Otherwise the cumulative impact discussion is defective. OSLDF2-448

5.2.14 Environmental Justice

Please see our prior comments on the Original DEIR and provide responses to the concerns expressed in those prior comments. OSLDF2-449

5.3 SIGNIFICANT UNAVOIDABLE PROJECT IMPACTS

As identified in the DEIR the proposed project would result in 6 Significant Unavoidable Impacts. This comment letter identifies a number of additional Significant Unavoidable project and cumulative Impacts. In addition, this comment letter identifies a number of reasons why the Revised DEIR underestimates the severity of identified impacts. This comment letter also identifies why some of the impact assessments are so fundamentally and basically inadequate and conclusionary in nature that meaningful public review and comment is essentially precluded. As is clear from the comments contained in Section 5 of this letter, the analysis contained in the Revised DEIR is inaccurate and incomplete and substantially understates the significant impacts of the first phase of the project. As detailed in this comment letter, impacts are substantially greater than identified in the DEIR. OSLDF2-450

5.4 DEFERRED ANALYSIS AND MITIGATION

As detailed in Section 5.2 of this comment letter, the Revised DEIR still includes numerous examples of both deferred analysis and improperly deferred mitigation. This is a fatal flaw of the Revised DEIR. All of the mitigation measures included in the Revised DEIR need to be reviewed and a full listing of measures which represent deferred analysis and/or mitigation identified and corrected. OSLDF2-451

6 FATALLY FLAWED ALTERNATIVES ANALYSIS

6.1 FAILURE TO CONSIDER LESS HARMFUL ALTERNATIVES AND REASONABLE ALTERNATIVES SUGGESTED IN PUBLIC COMMENTS ON THE ORIGINAL DEIR AND NOP FOR THE REVISED DEIR

The Revised DEIR fails to consider less harmful alternatives to the project as whole, or to the phase 1 project. This is evidenced by the fact that the Revised DEIR identifies the proposed project as the environmentally superior alternative and the fact that the Revised DEIR screens out a number of alternatives. In our prior comments on the Original DEIR we commented on the need for the EIR to include evaluation of:

> Other locations within the preserve which are not Core Habitat. The Revised DEIR identifies two such locations, but inappropriately screens these alternatives out: North Site and Upper Colima as detailed in Section 6.3.
> Drilling from locations exterior to the Preserve. The Revised DEIR does not include a serious attempt to locate other Matrix or City-owned land or land that could be acquired for slant drilling purposes. The Revised DEIR includes only one site outside the Preserve in the alternatives analysis: the Landfill Site. This is really the only alternative analyzed in the Revised DEIR.
> Fewer wells resulting in a smaller pad, a smaller processing facility, shorter construction time, less traffic, etc. The Revised DEIR omits consideration of a reduced project alternative. Clearly an alternative with fewer wells and associated facilities, where the total area of disturbance is actually limited to a maximum of the seven acres specified in the Lease Agreement would be a logical alternative to include in the Revised DEIR. So would other variations on the reduced project theme. OSLDF2-452
> Some combination of the above

Similar comments were received from Responsible Agencies. In addition, the California Department of Fish and Game suggested the following Alternative that was not addressed in the Revised DEIR:

> The Department recommends an additional Project alternative in which areas within the City included within the Preserve, such as the proposed Project sites, be protected in perpetuity under conservation easements via a conservation mitigation banking program. If the City is seeking additional revenue from its property within the Preserve, it could designate these areas as a conservation mitigation bank and sell mitigation credits. This alternative would be more biologically compatible with the zoning designation and the conservation visions for which the City originally proposed for this area.

6.2 THE REVISED DEIR INAPPROPRIATELY BREAKS ALTERNATIVES INTO PIECES FOR PURPOSES OF ANALYSIS

Both we, and the County, commented on the fact that the Original DEIR inappropriately broke the project into pieces for purposes of analyzing the alternatives. (See Section 1.6.3 of this comment letter). The Revised DEIR continues to do this, providing a separate analysis of the site, roadway and pipeline alternatives. It is not clear if the roadway and pipeline alternatives only go with the proposed project consolidated central site location, or also with the one other site alternative analyzed in the Revised DEIR, the Savage Canyon Landfill Site. Clearly Hadley Street Access would only appear to go with the North Site. OSLDF2-453

If it is inappropriate to break a project into pieces for purposes of analysis under CEQA, it must also be inappropriate to break the alternatives into pieces. The Revised DEIR must include analysis of complete alternatives that include all of the component pieces: site, roadways, and pipelines.

6.3 EIR PREPARERS INAPPROPRIATELY SCREENOUT ALTERNATIVES

In commenting on the alternatives analysis contained in the Original DEIR the Los Angeles County Regional Park and Open Space District commented (at page 42):

> Screening out of alternatives "Savage Canyon Landfill" and "La Habra Pipeline": Considering the benefits of each of these alternatives for moving project elements away from residences and habitat areas, the screening analysis data is too general to adequately make a determination of the viability of these alternatives. Section 15126.6(b) of the State CEQA Guidelines indicates that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening and significant effects of the project, even *if these alternatives would impede to some degree the attainment of the project objectives, or would be* more *costly."* The Draft ElR lacks concrete data with references that demonstrates and reinforces the decision to eliminate these alternatives from further consideration. OSLDF2-454

The Revised DEIR continues to screen out the La Habra Pipeline alternative, still without concrete data. Although the Revised DEIR now includes the Savage Canyon Landfill alternative as the only site alternative, other than the no project alternative, analyzed in the Revised DEIR, the screening analysis for the eliminated the remaining alternatives continues to be based on a lack of concrete data.

6.3.1 <u>Inappropriate Screening Criteria and Usurpation of The Role Of The Decision-Makers</u>

The Revised DEIR uses as a screening criterion whether or not an alternative site would enable recovery of a sufficient percentage of the oil reserves (see page 5-5), without ever

defining the percentage that equal sufficient or defining the basis of the sufficiency determination. The Revised DEIR includes percentage estimates for some of the alternatives, but there is no information provided regarding how this information was calculated. It appears that some of this information may have been provided by Matrix. Any such information, which is used in the Revised DEIR needs to be made available to the public, preferably in the form of a technical appendix containing information on drilling method and reserve access for the various sites, so as to enable independent verification of the assertions. OSLDF2-455

In addition, it is inappropriate for the EIR preparers to screen out or reject alternatives that may be environmentally superior to the proposed project, or which present a different basket of impacts, on this basis. If is also inappropriate for the EIR preparers to screen out alternatives based on their judgment regarding the relative merit of impacts. It is up to the City's decision-makers to make this kind of trade-off decision. As noted in Section 15093 of the CEQA Guidelines: "CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project." This is the role of the decision-maker, not the EIR preparer. OSLDF2-456

For example:

6.3.2 <u>North Site</u>

On page 5-11 the Revised DEIR inappropriate screens out the North Site alternative, as the EIR preparer usurp the trade-off decision-making role of the City Council. The Revised DEIR acknowledges that the North Site would reduce biological resource and traffic impacts, but would increase aesthetic, noise, risk and odor impacts. (We would note that there is no analysis to support these conclusions). No analysis of the magnitude of the differences between this alternative and the proposed project is provided, since the alternative is screened out in Chapter 5 from being an alternative analyzed in Chapter 6. The Revised DEIR notes that production levels would likely be reduced by 50 percent, again without providing any basis for the judgment. The Revised DEIR screens this alternative out stating: OSLDF2-457

> The increased aesthetic impacts and the closer proximity to residences and recreational areas are considered to be greater than the advantages to biology. The facilities would still be located within the Preserve and some recreational activities take place in this area. Therefore, this alternative has been excluded from further consideration.

The EIR preparers have thus clearly and inappropriately usurped the function of the City's decision-makers by making judgments about the tradeoff between impacts.

6.3.3 Upper Canada Canyon Consolidated Site

On page 5-11 to 5-12 the Revised DEIR screens out the Upper Canada Canyon Consolidated Site alternative, as the EIR preparer make a feasibility determination, without any supporting documentation. The Revised DEIR acknowledges that this alternative would reduce impacts on surrounding residences including risk of upset, odor, and impacts associated with air quality, aesthetics and noise, but would increase biological resource and land use compatibility impacts as a "result of uses inconsistent with the Preserve's Resource Management Plan and designated Core Habitat." It is interesting that this alternative is inconsistent with the RMP and Core Habitat but that the Revised DEIR does not find the proposed project to be inconsistent with the RMP, though it is similarly located in Core Habitat. OSLDF2-458

The Revised DEIR screens this alternative out stating:

> This alternative is eliminated from further consideration because stability and geological issues may prevent use of potential pad areas, and the alternative would encroach farther into the core habitat of the Preserve, a potential increase in biological impacts.

It is interesting that this alternative, which is located along the route of the Landfill Access Road, is screened out due to geological issues. This determination is made without benefit of a geotechnical study. Similarly, no geotechnical study has been prepared for the Landfill Access Road. Where is the evidence that the Landfill Access Road will not also present unacceptable geotechnical issues? Also, since the access for this alternative has not been described, and the alternative is located closer to the landfill, it is possible that this alternative would not require a roadway that bisects the heart of Core Habitat, as does the proposed project. OSLDF2-459

There is insufficient information presented in the Revised DEIR on which to screen out this alternative. Since the alternative is not clearly infeasible, the EIR preparers have thus clearly and inappropriately usurped the trade-off function of the City's decision-makers. OSLDF2-460

6.3.4 Consolidated Upper Colima Road Site

On page 5-12 to 5-13 the Revised DEIR screens out this alternative, as the EIR preparers again make a determination, without any supporting documentation. The Revised DEIR acknowledges that this alternative would:

> move development completely out of the Preserve's designated core habitat and into the less sensitive preservation area, thereby reducing impacts to biological resources within the core habitat. Recreation impacts in the core habitat area would also be minimized since all development would occur outside of the recreational areas along the Loop Trail. Traffic impacts would be reduced because Catalina Avenue would not be used for access during any phase.

The Revised DEIR screens this alternative out stating:

> However, this alternative could increase biological impacts to the wildlife corridor that utilizes the Arroyo San Miguel Trail tunnel, and it could increase recreational impacts on users of the Arroyo San Miguel Trail (on the east side of Colima Road) and other trails that use the initial portion of the Arroyo Pescadero and Arroyo San Miguel Trails for access. Increased aesthetic impacts would occur since this alternative site would be visible from residences on the ridge along Lodosa Drive and Aurora Crest Drive on the east side of Colima Road above the golf course. In addition, production facilities located so far to the east of the field may limit the ability to drill into the west end of the reservoir. Geological impacts may increase since the area could have large areas of poorly compacted soil and steep slopes could lead to stability issues. Therefore, this alternative has been eliminated from further consideration.

OSLDF2-461

It is interesting that this alternative is screened out in part due to geological issues. This determination is made without benefit of a geotechnical study. There is insufficient information on which to screen out this alternative, included in the Revised DEIR. Since the alternative is not clearly infeasible, the EIR preparers have thus clearly and inappropriately usurped the trade-off function of the City's decision-makers.

6.4 THE ANALYSIS IS BASED LARGELEY ON UNSUPPORTED STATEMENTS AND ALTERNATIVE DESCRIPTIONS LACK APPROPRIATE DETAIL FOR EVALUATION

As with the Consolidated Site alternative analyzed in the Original DEIR, the alternatives that are screened out, and the alternatives that are analyzed in the Revised DEIR have:

- No project plans
- No site plans
- No roadway plans
- No infrastructure plans
- No drainage plans
- No operational plans
- No Traffic Impact Study prepared by a qualified traffic engineer
- No Geotechnical Study prepared by a qualified geologist
- No Hydrology Study prepared by a qualified hydrologist or geohydrolgist
- No Habitat Conservation Plan
- and are lacking many of the other plans needed for a meaningful analysis

OSLDF2-462

As we have seen with the Consolidated Site Alternative vs. the proposed project analyzed in the Revised DEIR, having this information makes a big difference (see section 1.10 and 1.11 of this comment letter).

OSLDF2-463

As a result of not having any real information regarding the alternatives considered in Chapter 5, the Revised DEIR includes ridiculous statements and conclusions that are made without any supporting evidence. Here are just a few examples:

> Page 5-7 for Savage Canyon Landfill Site: "The area would encompass 4.5 to 5 acres. Cut and fill requirements would be similar to the proposed Project."
>
> Page 5-9 for North Site: "Cut and fill would be similar to the proposed Project, including roadway construction."
>
> Page 5-12 for the Consolidated Upper Colima Road Site: "This alternative would encompass four different preexisting pads covering approximately 5 acres (see Figure 5-1). This alternative site could be reached from the existing access along the Arroyo Pescadero and Arroyo San Miguel Trail. Cut and fill amounts would be similar to the proposed Project. Disturbed areas would also be similar to the proposed Project, although the oil and gas processing site may be distinct to use of the existing, separate pads." OSLDF2-464

It is amazing that all of these alternatives have similar areas of disturbance or cut and fill amounts, given their very different topography. This is clearly unlikely. This illustrates the absurdity of the analysis provided in the Revised DEIR regarding alternative.

6.5 ONLY ONE ALTERNATIVE IS ANALYZED IN THE REVISED DEIR

The only site alternative analyzed in the Revised DEIR is the Landfill Site Alternative. As specified in CEQA Guidelines Section 15126.6(a): "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." One alternative does not a range make. OSLDF2-465

6.5.1 Proposed Project Also Includes The Loop Road And Thus Would Also Have The Additional Two Loop Road Impacts

The proposed project includes the improvement of the Loop Trail Road and use of this roadway for emergency access. It is unclear why per Table 6-5, the Project With Loop Trail Road would have noise impacts on recreational areas and aesthetic impacts in the form of views of the access road, and the proposed project, which includes an improved Loop Trail Road would not also have these same significant unmitigated impacts. The "proposed project" which includes a Loop Trail Road for emergency purposes, would have the same additional unmitigated impacts as the "Proposed Project With Loop Trail Road" alternative. OSLDF2-466

6.6 THE REVISED DEIR PROVIDES NO INFORMATION WHATSOEVER REGARDING LANDFILL REGULATIONS WHICH ACT AS CONSTRAINTS ON FEASIBILITY

Page 5.-9 of the Revised DEIR has the following to say about the Savage Canyon Landfill Site:

> However, this alternative would require significant time-consuming amendments to existing state Landfill permits, which would create land use impacts. It is unknown whether drilling within the Landfill would be approvable within the constraints of Landfill operations and state and federal regulations.

OSLDF2-467

However, no specific information whatsoever is provided regarding the provisions of the Landfill permit which would need to be amended, or the state and federal regulations which constitute a constraint. No code sections are cited, no copies of the landfill permits are provided in an appendix to the Revised DEIR. The reviewing public thus has no ability to verify these assertions, and the associated land use impacts that are used in the Revised DEIR at page 6-57 to rule this alternative out as the environmentally superior alternative.

The Revised DEIR needs to provide information about these constraints, as it is possible that they would also work to render the Landfill Access Road infeasible. This needs to be addressed in the Revised DEIR. OSLDF2-468

6.7 INAPPROPRIATE IDENTIFICATION OF THE PROPOSED PROJECT AS THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The project is the project, ergo it is not an alternative. It therefore cannot be the environmentally superior alternative. The Revised DEIR fails to meet the CEQA requirement to identify an environmentally superior alternative. OSLDF2-469

7 OTHER FATAL FLAWS

7.1 FAILURE TO ANALYZE THE POTENTIAL IMPACT OF MITIGATION MEASURES

OSLDF2-470

As noted in subsection of Section 5.2 and in Section 2.3.2, the Revised DEIR fails to adequately analyze the impact of specified mitigation measures. This is a fatal flaw of the Revised DEIR.

7.2 FAILURE TO IDENTIFY SIGNIFICANT IRREVERSIBLE CHANGES

The proposed project would commit the City to allowing oil drilling within a Habitat Preserve for an unspecified length of time. In addition, it would create a precedent for the removal of land from Prop A status and open space protection. This has the potential to result in OSLDF2-471

irreversible changes, as land once lost to open space and Habitat Preservation purposes is difficult to regain, given the economic pressures of an expanding economy and increasing population based. This needs to be addressed in the Revised DEIR.

7.3 INACCURATE GROWTH INDUCING IMPACTS ANALYSIS

As we previously commented, the DEIR mistakenly concludes that the proposed project would not be growth inducing. The proposed project would result in the extension of infrastructure including water, electrical and potentially sewer into the Habitat Preserve. The City is pursuing the project because it believes that it represents a substantial new revenue source for the City and thus a source of economic growth. The project would set a precedent in the form of removal of Proposition A protections for open space within the County. The DEIR correctly concludes that the project would encroach into protected open-space, but incorrectly dismisses this growth-inducing element of the project because "oil-field activities and open space recreational activities and facilities would be designed to co-exist." Not only does the proposed phase 1 project meet one of the four criteria for a growth-inducing project cited on DEIR page 7-2, it meets all four criteria. The DEIR incorrectly concludes that the phase 1 project is not growth inducing. OSLDF2-472

8 REASONS FOR DENIAL

Given the fact that the proposed project violates the terms of the lease agreement, the fact that the Revised DEIR is a clear example of post hoc rationalization, and the fatal flaws in the Revised DEIR, the City Council should reject both the EIR and the project as a whole.

8.1 REASONS TO REJECT THE EIR

As detailed in this comment letter, the DEIR for this project is fundamentally and basically inadequate and conclusory in nature. The document not only violates a number of key CEQA precepts, such as the prohibitions against piecemealing and post hoc rationalization, it also fails to identify a number of Significant Unavoidable Impacts, underestimates project impacts due to both failure to analyze the whole of an action and an inadequate and incomplete project description, and fails to address a number of the potential impact areas contained in the CEQA checklist. The document is so fundamentally and completely inadequate that it must be completely rewritten. OSLDF2-473

8.1.1 Recirculation Required

Pursuant to Section 15088.5 of the CEQA Guidelines, a Lead Agency is required to recirculate an EIR prior to certification if significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance. OSLDF2-474
(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

This comment letter demonstrates that all of the conditions necessitating recirculation are present with the current DEIR.

8.1.2 The DEIR Is So Fundamentally Flawed That Even Recirculation Will Not Cure the Defects in The Planning and EIR Process

However, simply responding to comments and recirculating the DEIR will not cure the basic defects in the planning process. The City issued a Lease Agreement without conducting appropriate environmental review or adequately considering the environmental, legal, economic, political and social consequences of the action. The only way to cure these fundamental breaches in the planning and EIR process is to cancel the Lease Agreement. OSLDF2-475

8.2 REASONS TO REJECT THE PROJECT

The proposed phase 1 project and the project as a whole do not meet a number of the City's objectives, as stated on DEIR page ES-1:

As discussed in Section 2.3, since pursuant to Proposition A, the City should be required to reimburse the full revenue stream from the proposed project, and any use of the revenue would be limited to Proposition A uses as specified in Section 16(a) of the authorizing statute under Proposition A. The City's objective of generating a substantial, long-term income stream for the City can not be met. OSLDF2-476

Several years ago, the City told the public in its published briefing on the project (See **Exhibit E**) that if, and only if, the project can be appropriately designed to meet the City's goals of absolute open space protection and preservation, would the City then consider the minimum drilling of test facilities to evaluate the potential for the extraction of these sub-surface minerals." The project will result in a loss of Critical and Core Habitat. A project with at least 6 significant unavoidable impacts doesn't meet this goal. OSLDF2-477

The proposed project is located within the Core Habitat portion of the Preserve, and will directly impact the viability and value of the Habitat Preserve. According to the Habitat Authority's comment letter on the DEIR, the Habitat "Preserve is a public investment of over $48.5 million dollars, of which $30.3 million was invested by the Habitat Authority, for acquisition (1,880 acres) for the purpose of biological preservation." The phase 1 project and the project as a whole do not meet the City's objective of minimizing environmental impacts on the Preserve. OSLDF2-478

Furthermore, as noted in Maintaining Ecological Connectivity Across the "Missing Middle" of the Puente-Chino Hills Wildlife Corridor (Conservation Biological Institute, 2005):

> The Chino and Puente Hills form a peninsula of wild uplands that jut from the Santa Ana Mountains into the heart of one of the largest unbroken urban areas in North America. Created by shifting Earth plates, this peninsula of wild in a sea of development supports a surprising diversity of native wildlife. Mountain lions still hunt mule deer in the area's diverse mosaic of grasslands, chaparral, coastal sage, and oak and walnut woodlands; roadrunners, California gnatcatchers, northern harriers, and other birds in decline throughout Southern California still persist here; as does a remarkably rich reptile and amphibian fauna.
>
> Maintaining this diversity, and the web of healthy ecological interactions it represents, presumably requires keeping this range of hills fully connected by wild habitats along its 42 km (26 mi) length. Severing connections or blocking movement along this corridor with roads or housing projects threatens to extirpate species from this urban reserve system and degrade ecological health throughout this range of hills - thus eliminating a remarkable ecological classroom within easy reach of millions of people craving a connection with nature. OSLDF2-479
>
> This loss would be doubly unfortunate given the tremendous public investment already made to conserve and restore biological open space and unfettered wildlife movement through this range of hills - from the Coal Canyon wildlife underpass at Highway 91, through Chino Hills State Park, Powder Canyon, Schabarum Park, and other private and public open space dedications to the western end of the Puente Hills (known locally as the Whittier Hills1). According to the California Department of Parks and Recreation, nearly a quarter billion dollars have already been expended or committed to acquiring and restoring natural open space in the Puente-Chino Hills Wildlife Corridor (http://hillsforeveryone.org/wildlife-corridor/state-investments.html). But the benefits of these existing investments is severely threatened by proposed development projects - including new roads, housing developments, golf courses, and reservoirs.

The proposed phase 1 project and the project as a whole, would impact the value of this corridor and the nearly quarter billion dollar investment in its preservation. OSLDF2-480

The proposed project results in noise impacts on the Preserve's Habitat. According to the Revised DEIR Table 4.2-3 9.86 acres of the Preserve would be impacted by noise, including 9.42 acres of impact to areas that are currently not disturbed and contain habitat. It therefore does not meet the City's objective of minimizing noise impacts to surrounding areas. OSLDF2-481

As detailed in our comments, the Traffic Impact Study included as a technical appendix to the DEIR, and the Revised DEIR may understate the traffic impacts of the proposed phase 1 project. It is likely that the phase 1 project does not meet the City's objective of minimizing traffic impacts to surrounding areas. This is particularly true if one considers the impact of construction of the North/Landfill Access Road on the Habitat Preserve and potentially the landfill. OSLDF2-482

As shown in Figure 10, the proposed phase 1 project would be located in Core Habitat of the Preserve. The phase 1 project does not meet the City's objective of minimizing impacts to the functioning of the Core Habitat of the Preserve. OSLDF2-483

The proposed phase 1 project would introduce industrial uses into a recreational area, disrupting not only the area, but requiring the construction of new trails to by-pass impacts to three existing trails. The proposed phase 1 project and alternatives, and the project as a whole, do not meet the City's objective of minimizing impacts to operational, recreational, and educational opportunities within the Preserve. OSLDF2-484

The proposed phase 1 project and alternatives would strike a blow to the heart of the Core Habitat area of the Preserve. The proposed phase 1 project and alternative and the project as a whole do not meet the City's objective of facilitating the long-term preservation and enhancement of the Preserve's ecological resources and native habitat OSLDF2-485

The proposed phase 1 project and the project as a whole do not meet the City's objective of maintaining reasonable fire safety levels for the community and open space, as the project places an oil facility and gas and oil pipelines within a extremely high fire hazard area. OSLDF2-486

The DEIR provides no remediation plan for the proposed project. Long-term remediation needs are unknown and costs are unclear. In addition, the City's potential liability from fires and other accidents is unclear. OSLDF2-487

The proposed project will impact residents directly and will interfere with their enjoyment of private and public property. The project will also impact some residents economically. According to the Socioeconomic Study contained in Appendix H of the DEIR, the residents in the immediate area of the project may experience a combined decrease in home value of $2.2 million dollars. However, the analysis notes that it does not take into account the specific property value loss and the subsequent financial impact on individual property owners within the City. In addition, this study underestimates the economic impact of the project on OSLDF2-488

City residents because the analysis is based on assessed housing prices, rather than current and pre-recession market prices.

As detailed in Section 5.2.10 of this comment letter, the proposed phase 1 project and alternatives do not meet the conditions necessary for obtaining a Conditional Use Permit. At a minimum the Proposed Project would result in 6 Significant Unmitigated Impacts and the alternative project would result in 6-8 Significant Unmitigated Impacts. As detailed in this comment letter, both would in fact result in substantially greater impacts than identified in the DEIR. OSLDF2-489

The project applicant has not complied with the terms of the Lease Agreement. The Conditional Use Permit application that was submitted was not consistent with the limitations on the acreage contained in the Lease Agreement and the Revised CUP application was incomplete. OSLDF2-490

Exhibits

A April 6, 2011 Whittier Daily News Article: "Whittier Oil Process Delayed; Matrix Oil Co. Files New Application to Drill."

B June 5, 2001 Press Release (http://www.matrixoilcom/contents/matrix-acquires-whittier-fied)

C http://whittieroil.com/frequently-asked-questions

D http://www.matrixoil.com/partners

E March 12, 2008, Whittier Daily News, Briefing on the "City's Negotiations to Consider the Extraction of Minerals From City Property" (http://www.whittierdailynews.com/ci_8546758

F August 26, 2008 City Council Minutes And Agenda - Resolution Of Intention To Lease Property For Production Of Oil

G Lease Agreement

H October 28, 2010 City Council Minutes And Agenda For Award Of The Bid

I Email from Andrea Gullo, Excutive Director of the Habitat Authority to Jonathan Snyder of the USFWS, January 13, 2010, and attached mitigation measures

March 2, 2009 emails between Matrix and the City regarding geological testing in the Preserve

J Matrix fuel statements, etc.: http://whittieroil.com/environment-technology

K "Matrix Oil Corporation Announces Support of Consolidated Central Site in Whittier", November 3, 2010, NASDAQ CMX GlobeNewswire

L February 24, 2011 Whittier Daily News Article: "Whittier Officials Say Environmental Report On Oil Drilling Won't Be Recirculated"

M April 13, 2011 Whittier Daily News Article: "Whittier City Council Gives Matrix Oil Three More Years To Obtain Permit For Oil Drilling"

Whittier City Council Agenda Report, April 12, 2011 recommending the approval of an amendment to Matrix's mineral leasehold.

Amendment To The Wittier Main 2008 Mineral Extraction Oil, Gas and Mineral Lease, dated April 12, 2011.

N Copy of Notice of Availability Sent to OSLDF

O City Manager and Public Works Director Emails Regarding Penn Street Issues

P City of Whittier's Requirements for a CUP Application Submittal.

Q Information on the Savage Canyon Landfill

R URBEMIS Model Output for Pad Grading With Soil Export – lbs/day and tons/year

EXHIBITS

EXHIBIT A

APRIL 6, 2011 WHITTIER DAILY NEWS ARTICLE: "WHITTIER OIL PROCESS DELAYED; MATRIX OIL CO. FILES NEW APPLICATION TO DRILL."

whittierdailynews.com

Whittier oil process delayed; Matrix Oil Co. files new application to drill

Mike Sprague, staff writer

Posted: 04/06/2011 06:56:42 PM PDT

WHITTIER - Matrix Oil Co. Wednesday filed a revised application for a conditional-use permit to drill for oil in the Whittier hills.

That means the process, which began in April 2009 when Matrix filed its original request to drill, will include a new environmental impact report.

The revised filing calls for a single drilling site and an access road to go through the city's Savage Canyon Landfill and then on to Penn Street.

The original plan called for three drilling locations and an access road that would go out to Colima Road, just north of homes on Lodosa Drive.

City Manager Steve Helvey said Matrix was asked to, in essence, start over because the final draft of the original environmental impact report doesn't line up with significant proposed changes to the project.

"Matrix is touting that they're now doing the environmentally sensitive alternative but that's n ot the project they applied for," Helvey said."It didn't receive the same level of scrutiny received by the original project," he said. "If we didn't do this, how do we live up to our insistence that we have maximum scrutiny on the project?"

Wednesday's action will delay the process, Helvey said.

Instead of the Planning Commission holding hearings in May, those may not happen until summer. The City Council most likely won't take a final vote until the fall, he said.

The new environmental impact impact report is expected to be released on June 3, Helvey predicted.

It will include responses

to more than 1,500 comments that were to be included in the report on the first application from Matrix.

The process will take less time this time around because 80 percent of the work is already done, he said.

Mike McCaskey, executive vice president of Matrix, stated in a letter to the city that his company submitted the revised application because some people commenting on the project asked for more information and analysis of the alternatives.

"Although preparation of a revised draft environmental impact report will result in significant additional costs and will delay a

Print Powered By FormatDynamics™

whittierdailynews.com

decision on the proposed development, Matrix is willing to accept these burdens in order to ensure that the citizens of Whittier have available to them the most comprehensive, focused and well organized environmental document," McCaskey stated.

The additional cost could be as much as $250,000, Helvey said.

Anti-oil opponents and environmental groups praised the decision to delay the project.

"We feel very vindicated," said Dan Duran, president of Whittier Hills Oil Watch.

"Our position from the beginning has been that the environmental impact report was so flawed the best position was to begin again," Duran said. "Apparently the City Council now feels that our concerns and those of other community groups were valid. There was not sufficient due diligence in educating the public and gathering public input."

Duran said his group will continue to fight the oil project.

"We are smarter and bigger than we were a year ago," he said. "We're better prepared than ever to continue our campaign against Matrix and its big-money backers that would financially benefit from our community while impacting our quality of life."

Clair Schlotterbeck, executive director for Hills for Everyone, whose group like many had called for the environmental impact report to be recirculated, praised the decision.

"Starting over is even better than recirculating," Schlotterbeck said.

The report didn't fully analyze the effects on its new proposal.

"To start over means an even more thorough look," she said.

"You can disregard the previous proposal and all of the complications that come along with it," she said. "It focuses attention on what likely will be chosen."

Delaying a project like this isn't unusual, Schlotterbeck said.

For example, a housing project in the Carbon Canyon area had three environmental impact reports because the plans kept changing, she said.

Eric Johnson, chairman of the Puente-Chino Hills Taskforce for the Sierra Club, said he's happy but still concerned about the access road through the landfill.

"Our concern is this road cuts through core habitat," Johnson said. "It extends the project footprint beyond the oil-drilling area."Dave Cowardin, a member of the Citizens Technical Advisory Committee for the Puente Hills Landfill Native Habitat Preservation Authority, also praised the move.

"This is a redo. It's a great idea. The result will be more information. That's a good thing."

Print Powered By FormatDynamics™

EXHIBIT B

JUNE 5, 2001 PRESS RELEASE
HTTP://WWW.MATRIXOILCOM/CONTENTS/MATRIX-ACQUIRES-WHITTIER-FIELD

Matrix acquires Whittier Field

Santa Barbara, CA, June 5, 2001 —

Matrix announces the pending acquisition of all interests in the Whittier Oil Field from Venoco located in Whittier, California. The field is producing 240 barrels of oil per day from 21 wells along with 180 mcf of gas per day. Matrix will operate the field and will acquire the field office for the facilities located in Whittier at the Honolulu Terrace production site. Matrix will acquire a net 400,000 barrels of oil to its ownership and will work with California-based Bonanza Creek Energy in a 50-50 % joint operating agreement to enhance production and optimize operations. Through its due diligence in the field Matrix has identified approximately 1 Million barrels of undeveloped oil reserves located in oil zones behind pipe in current producing wells or located in un-tapped zones between current producing wells. The total estimated field reserves to all interests are approximated at 2 Million barrels of oil and natural gas equivalent located in current wells as producing reserves and in un-tapped zones as undeveloped reserves based on current oil prices of 21 dollars WTI. The acquisition is expected to close in October, 2001. Matrix anticipates many years of benefit from the partnership with Bonanza Creek Energy which has producing assets in Colorado located in the DJ Basin. In addition Matrix looks forward to working with Mr. Silas Briones as a long-time Whittier resident and operator of the field to manage its field operations along with Matrix on goals to optimize improvements to the field.

Contact

Webform:	*Contact Form*
Mailing Address:	104 W. Anapamu Street, Suite C Santa Barbara, CA 93101
Telephone:	(805) 884 9000

Copyright © 2010 Matrix Oil. All Rights Reserved.
Privacy Policy

EXHIBIT C

HTTP://WHITTIEROIL.COM/FREQUENTLY-ASKED-QUESTIONS

Appendix M

Whittier Main Field oil project

Home
Project Overview
Community Benefits
FAQ
Environment & Technology
Media

Frequently Asked Questions

1. What is the Whittier Main Oil Field Development Project?

Return to Table of Contents

The proposed Whittier Main Oil Field Development Project would involve drilling wells and producing oil and gas from the Project Site, which comprises up to 7 acres, 0.5%, of the 1290 acres owned by the City of Whittier, which is part of the Puente Hills Landfill Native Habitat Preserve. The Preserve is located at the eastern edge of Los Angeles County, bounded by the San Gabriel River on the west and the Chino Hills to the east.

This area was commonly known as the Whittier Main Field, an active oil field that produced oil for more than 100 years with approximately 500 wells drilled and completed for oil and natural gas until the early 1990s.

As proposed, the fully developed Project would consist of wells, an oil processing facility, a gas plant, and a temporary oil-truck loading facility located within portions of the 1,280-acre City-owned Whittier Main Oil Field, now part of the Preserve. The submitted project proposed oil and gas production and processing facilities at three sites within the Whittier Main Oil Field: the West Well Site, the Central Site, and the East Well Site. A crude oil pipeline and a natural gas underground pipeline is being studied under Colima Road, sections of which separately fall within City and County unincorporated areas, to transport crude oil and natural gas to markets.

All three of the proposed sites would contain well cellars, well test stations, and liquid and gas separating equipment. In addition, the Central Site would house the oil processing facility and gas plant. The total pad area required for the oil and gas production and processing at the three sites is approximately 7.0 acres, 0 .5% of the total land area of the Preserve.

On October 28, 2008, Matrix Oil Corporation and its partner Clayton Williams Energy, Inc. won the lease that would allow the leasees to apply to the City for a Conditional Use Permit (“CUP”), which if approved, could permit resumption of oil and gas extraction from the site, with conditions to mitigate any impacts.

We anticipate that the EIR will have valuable suggestions to improve the project by reducing and eliminating potential impacts. As we move forward in the process, we will update the website and this section to reflect those changes.

2. Who is Matrix Oil?

Return to Table of Contents

Matrix Oil Corporation (“Matrix”) is a privately-owned, independent oil and natural gas production company based in Santa Barbara, CA. Since 1999, Matrix has strived to invest in or purchase interests in properties that have long-term and low-risk production. Matrix acquired its first interest in the Los Angeles Basin in 1999 in the Las Cienegas Field from Phillips Petroleum. The company owns oil-producing properties in the Los Angeles and San Joaquin Basins of California as well as natural-gas producing properties in the Sacramento Basin of California. Matrix also owns oil-producing royalty and non-operated properties in the Permian Basin of West Texas. In 2009 Matrix received a State of California Division of Oil, Gas and

Geothermal Clean Lease "Award for Excellence in Site Compliance and improvement in Operations" for its facility in Bakersfield.

3. Who is Clayton Williams Energy, Inc?

Return to Table of Contents

Clayton Williams Energy, Inc., ("CWEI") an independent oil and gas company, engages in oil and gas exploration and production activities in Texas, Louisiana, New Mexico, and California. CWEI is a current partner with Matrix on many projects and is the co-lessee/co-applicant with Matrix on the proposed Whittier Main Oil Field Development Project under study by the City. The company owns and operates numerous natural gas service facilities, pipelines, treatment plants, tank facilities, and compression facilities. It owns or operates approximately 6,750 wells with reserves in excess of 30 million barrels of oil under property and lease holdings in excess of one million acres. The company was founded in 1991 and is headquartered in Midland, Texas.

4. Does Matrix Conduct Business Directly in the City of Whittier?

Return to Table of Contents

Yes. Matrix has been a part of the Whittier community since 2001. We operate two sites with 25 active wells. Twenty-three wells are located underground in well cellars. The wells produce approximately 350 barrels of oil per day along with natural gas. Since 2001 Matrix has produced approximately 800,000 barrels of oil from its operations. These two sites are located in the western portion of the Whittier Field and are named the Honolulu Terrace Site and the Rideout Heights Sycamore Canyon site. The Honolulu Terrace Site is located within City of Whittier limits and the Rideout Heights Sycamore Canyon Site is located adjacent to City of Whittier limits and within the Puente Hills Native Habitat Preserve.

5. Does the City of Whittier Currently Benefit from Your Operations?

Return to Table of Contents

Yes. The City receives oil production royalties, license fees and other franchise fees from Matrix that amount to approximately $60,000 per year. Since 2008, the City has received approximately $600,000 in land lease payments and in fees for City review of the Matrix CUP application.

6. Do Any City of Whittier Residents Benefit from the Production?

Return to Table of Contents

Yes. We pay approximately 700 royalty owners a royalty payment on the current production from our sites based on their mineral rights ownership assigned to their property townlot. Currently approximately $1.1 million is paid out annually in royalties. Matrix pays annual taxes to Los Angeles County, which uses tax revenues to provide services to all Cities in the area.

7. How Will the City of Whittier Benefit from the Whittier Main Project?

Return to Table of Contents

The Project could have dramatic positive fiscal impact for the City – If Matrix can re-establish 800 BOPD [Barrels of Oil Per Day] production (rate when Chevron abandoned in the early 90's), it would yield approx 6.0MM$ for City at today's oil prices. In addition:

Every additional 1000 BOPD brought on by Matrix would add 7.7MM$ per year royalty to the City

Project is being designed for maximum rate of 10,000 BOPD

It is anticipated that the project would bring a significant number of jobs and contracts to local residents and companies that bid on construction aspects.

8. How Could the Schools Benefit?

Return to Table of Contents

The City could enter into a Joint Powers Agreement with the School District to lease from the District playgrounds and athletic fields for the Parks & Recreation Department to use for community activities such as tee-ball and soccer. This year round lease agreement could result in the City paying the School District millions of dollars a year that could be used in the District's General Fund. A Joint Powers Agreement is not uncommon. It is currently in practice in cities across California.

9. How Long Will the Project Take?

Return to Table of Contents

If the Matrix's Conditional Use Permit [CUP] and accompanying City of Whittier Environmental Impact Report [EIR] is approved by the City Council, we hope to drill test wells in 2011. The wells will "test" known parts of the field area that have a high probability of established occurrence of oil and gas. Based on the conclusions of the test wells, we would be able to place wells on production by mid-2011. These projections of timing are highly dependent on the review process currently underway in the City.

Matrix would produce the wells into temporary facilities. Matrix would then construct up to 7 acres of facilities in 2011 and 2012 to include a service road, drill pads with underground utilities and pipelines, tanks and a gas processing plant. Sometime in 2013 we could start drilling with one rig up to about 12 wells per year all from soundproofed pads -- up to 52 oil wells and up to 8 water injectors to place produced water back into deep oil zones.

It is estimated that it will take about 5 years achieve full production from the field.

10. Does Matrix Operate in the Habitat Currently?

Return to Table of Contents

Yes. We operate nine active wells at our Sycamore Canyon facility, which includes five new wells drilled since 2007. In our operations, we have worked with the Puente Hills Landfill Native Habitat Preservation Authority, the California Department of Fish and Game, the South Coast Air Quality Management District, the Los Angeles Regional Water Quality Control Board, and the State of California Division of Oil and Gas and Geothermal Resources.

11. Describe the Matrix Drilling Operations in the Puente Hills Habitat.

Return to Table of Contents

The operations have been very efficient with no adverse impacts. Matrix has drilled five wells over a 3-year period at the Rideout Heights Sycamore Canyon site located in a wooded area near a hiking trail with a nearby running stream. All new wells were located underground in a well cellar. The wells average about 4000 feet in depth and each took about 3 weeks to drill and case. The drilling at the site is allowed over a 24-hour period but we limited truck traffic to only daylight hours. All materials used in drilling were hauled out at the conclusion of the drilling operation.

12. What Steps has Matrix Taken to Preserve or Improve the Natural Habitat Surrounding Existing Sites in the Whittier Area?

Return to Table of Contents

At the Honolulu Terrace site we have added vegetation and landscaping around the one-acre facility to improve its visual appearance. We have added a better street front wall to improve its look for the neighborhood and help with sound minimization. We replaced the back fence with a fire-proof concrete wall to improve safety. We are reviewing other planting strategies to further shield the site from neighbors. At the Sycamore Canyon site we have been working since 2007 with State and local agencies to develop and permit plans to restore native habitat, improve the Sycamore Creek watershed flow, remove debris from the creek, remove non-native plants and improve the current creek crossing. It is anticipated that this project will begin construction in the fall of 2010 and will involve the hiring of local contractors.

13. Do You Foresee Working on other Projects to Improve the Habitat?

Return to Table of Contents

Yes. If the Whittier Main Development project moves ahead, we plan on improving a substantial amount of Habitat land by removing remove non-native habitat and developing strategies to protect wildlife. It is anticipated that approximately $200,000 per year will be paid to the City to assist with staffing in the habitat area and that local contractors will be provided opportunities to work in the existing park and preserve areas.

14. How Does Matrix Address Noise Generated by Operations?

Return to Table of Contents

We work very hard to be safe, quiet and responsive to our neighbors. Matrix operations are located adjacent to homes within the City and approximately 1,000 feet from residences at our site located in Sycamore Canyon. These sites use varying amounts

of sound panels and movable sound walls. We have a hotline to allow residents to communicate directly with us. Feedback from neighbors has been very helpful in our efforts to reduce noise. We have employed local residents as advisors. Our new project proposal will have many sound muffling technologies built into the facilities. We are currently reviewing new techniques with soundwalls or panels placed on rigs to further mitigate noise at our current sites and for use at future sites.

15. How Will Matrix Manage the Traffic at its Proposed New Project?

Return to Table of Contents

Our current sites have traffic that is designed or scheduled for day-light activity. The proposed, new project under review by the City will have traffic that is higher in volume at the initial stages and will decrease at later stages. Initial traffic in the proposed test phase will include trucks and service vehicles that will travel only during daylight hours to bring materials to the site. The project will have a construction phase and most of that activity is to occur during daylight hours. Truck activity associated with that phase is being analyzed by environmental experts under contract to the City.

16. Is it Safe to Drill in the Locations Being Studied?

Return to Table of Contents

Extremely. The location of the proposed Whittier Main Lease Project is a site in the Whittier Hills in which approximately 500 wells have been drilled and have produced oil and gas since 1890. Information on the underground location of oil reservoirs is well known from our study of previous drilling. The pressure in the field is low and occurrence of oil reservoirs is relatively shallow (average depth of 4000 feet). Like production in the west part of the Whittier Field, it is anticipated that the oil will need to be pumped out of the ground with underground electric motors. Sites will have ample fire suppressant equipment located behind concrete walls. A fire buffer will be located around the sites. All sites will have significant containment strategies and will protect against run-off. The risk of earthquake damage is extremely low, as all sites will be built to modern earthquake standards with steel and concrete. There are no major waterways that could pose potential flood risk. Drilling is not expected to impact local wildlife as the sites will be sound-proofed and light-proofed to minimize impact to the surroundings.

17. Does Matrix Work with Local Companies in its Current Operations?

Return to Table of Contents

Matrix uses a local company in Whittier to operate its wells on a day-to-day basis. This company is owned and managed by a life-long Whittier resident who specializes in local oil operations. We also have on contract approximately 30 service and equipment companies that are located in Los Angeles or Bakersfield that specialize in field operations services that are needed to operate our field wells.

18. Are there Health Risks Associated with Living Near Oil Well Operations?

Return to Table of Contents

No. Not if the wells are properly maintained and conform to Federal, State and local laws. This question has been well studied and no studies or cases have identified any adverse impacts of being located near oil well operations.

Table of Contents

1. *What is the Whittier Main Oil Field Development Project?*
2. *Who is Matrix Oil?*
3. *Who is Clayton Williams Energy, Inc?*
4. *Does Matrix Conduct Business Directly in the City of Whittier?*
5. *Does the City of Whittier Currently Benefit from Your Operations?*
6. *Do Any City of Whittier Residents Benefit from the Production?*
7. *How Will the City of Whittier Benefit from the Whittier Main Project?*
8. *How Could the Schools Benefit?*
9. *How Long Will the Project Take?*
10. *Does Matrix Operate in the Habitat Currently?*

11. *Describe the Matrix Drilling Operations in the Puente Hills Habitat.*
12. *What Steps has Matrix Taken to Preserve or Improve the Natural Habitat Surrounding Existing Sites in the Whittier Area?*
13. *Do You Foresee Working on other Projects to Improve the Habitat?*
14. *How Does Matrix Address Noise Generated by Operations?*
15. *How Will Matrix Manage the Traffic at its Proposed New Project?*
16. *Is it Safe to Drill in the Locations Being Studied?*
17. *Does Matrix Work with Local Companies in its Current Operations?*
18. *Are there Health Risks Associated with Living Near Oil Well Operations?*

What Whittier Residents are Saying about the Project

Project Analysis & Environmental Impact Report

EXHIBIT D

HTTP://WWW.MATRIXOIL.COM/PARTNERS

Appendix M

Home
About Us
Technology & Innovation
Environment, Health & Safety
Our Partners
Announcements

Our Partners

Matrix Oil Corporation works with many companies to optimize its operations and to plan or execute strategies on future projects in development.

Clayton Williams Energy, Inc. is an independent exploration and production company that develops and produces oil and natural gas. Clayton W. Williams, who has over 50 years of experience in the energy industry, founded the company. CWEI focuses and operates primarily in Texas, Louisiana and New Mexico. The Company has extensive expertise with the use of 3-D seismic. At December 31, 2009, the Company had proved reserves of 33.6 million barrels of oil equivalents.

Adams Streeter is Civil Engineering company, with offices in Irvine and Riverside, California. They are an experienced company with a reputation for service and stability that has benefited many repeat clients for over 28 years. They manage multifaceted projects from inception through construction. A qualified staff of over 50 professionals who understand that efficiency in engineering, planning and surveying make for a successful partnership.

The California Independent Petroleum Association (CIPA) is a non-profit, non-partisan trade association representing approximately 450 independent crude oil and natural gas producers, royalty owners, and service and supply companies operating in California.

Established in 1989, DRILTEK is a California corporation specializing in engineering, planning and management of oil and gas operations. DRILTEK's engineers combine an unparalleled design background with decades of on site supervisory experience. This combination of technical and operational expertise in industry is rare, and it allows DRILTEK to provide high-quality results for the lowest possible cost. Headquartered in Bakersfield, California, DRILTEK serves onshore and offshore, locally and internationally, to both major and independent oil and gas operators.

Appendix M

The Independent Petroleum Association of America (IPAA) has represented independent oil and natural gas producers for three-quarters of a century. On June 10, 1929, President Herbert Hoover called a national and state conference to discuss and formulate a practical program for the conservation of America's natural petroleum resources. At that historic meeting at the Broadmoor Hotel in Colorado Springs, Colorado, oil operators, royalty owners, and land owners alike formed a new national association, the IPAA.

Kenai Drilling was formed in June of 1988, specializing in the California intermediate and shallow market. Since that time, Kenai has grown and expanded its rig count by purchasing and building new rigs in order to meet our customers needs for the deeper market. Kenai has the capability to provide drilling services for exploration and development of oil, gas and geothermal wells throughout the state of California and the Mid Continent. In addition, Kenai has the technical manpower available to provide any services the customer may request, from planning and drilling of wells, to building site specific equipment for hard to drill areas. Kenai is also capable of providing manpower for offshore or onshore projects while operating a customer's equipment.

Kenai provides drilling services for daywork, footage, turnkey and manpower contracts. Kenai is ready to work with its customers to provide any and all services needed to get the job done.

Kenai has grown and prospered through all of the petroleum industries ups and downs because of one thing... Quality. A quality that you can count on for all your drilling needs. Kenai stands ready to work with our customers to provide exactly the right equipment and professional staffing in order to perform a quality operation.

LSA is a diversified environmental, transportation, and community planning firm that evolved from a small consulting firm formed in 1976. The firm was designed to meet the need for environmental evaluation as a result of the passage of the California Environmental Quality Act (CEQA). LSA has ten California offices located in Berkeley, Carlsbad, Fresno, Irvine, Palm Springs, Point Richmond, Riverside, Rocklin, San Luis Obispo, South San Francisco, and one office in Fort Collins, Colorado.

Processes Unlimited (ProU) provides full–service planning, engineering, design, project management and safety services. Corporate headquarters are in the USA in Bakersfield, CA with multi-national and international entities.

ProU's highly trained and innovative staff specializes in providing customized solutions for projects in a wide variety of industries across the world. We take pride in building long term relationships that extend beyond capital projects and into everyday engineering support activities.

Texas Capital Bank, the principal subsidiary of Texas Capital Bancshares (NASDAQ: TCBI), is a commercial bank that delivers highly personalized financial services to Texas-based businesses with more than $5 million in annual revenue

VA Consulting, Inc. (VA), formerly known as Van Dell and Associates, is a full service consulting engineering firm specializing in the fields of land development, transportation, water resources, and land surveying. Since our formation in 1973, VA has serviced public agencies and private clients in the planning, design, and construction of southern California communities.

Contact

Webform:	*Contact Form*
Mailing Address:	104 W. Anapamu Street, Suite C Santa Barbara, CA 93101
Telephone:	(805) 884 9000

Copyright © 2010 Matrix Oil. All Rights Reserved.

Privacy Policy

EXHIBIT E

MARCH 12, 2008, WHITTIER DAILY NEWS, BRIEFING ON THE "CITY'S NEGOTIATIONS TO CONSIDER THE EXTRACTION OF MINERALS FROM CITY PROPERTY" HTTP://WWW.WHITTIERDAILYNEWS.COM/CI_8546758

Appendix M

Briefing on the city's negotiations to consider the extraction of minerals from city property

Posted: 03/12/2008 10:57:15 AM PDT

The City of Whittier has been actively researching ways in which our assets can best be utilized for the betterment of our residents. Protecting our water rights, assuring the viability of our landfill, and maximizing our economic base are all a part of this effort.

We are now looking forward to see how we can continue to provide for the protection of our open space, while investigating the potential for the extraction of water, natural gas, and oil from the sub-surface formations under our hills. Recent technologies now permit the mining of these valuable assets without the damage and scarring of our property that was evident by the decades of surface abuse of our beautiful open space by the oil companies who historically operated in the Whittier Hills. This process allows for diagonal extraction of minerals through a slant drilling technology that can be accomplished by using less than half of 1% of our property to effectively mine the mineral rights the citizens of Whittier own below the surface of the hills. Over 1200 acres of minerals can be productively extracted through the use of only a few acres of facilities that can be shielded from sight and installed in a manner compatible with our sensitive Whittier ecosystems.

We have embarked on a series of discussions with Matrix Oil, the predominant exploration company currently extracting minerals in the Whittier Hills. The purpose of our negotiations has been to determine the terms and conditions that would be necessary to allow for the continued surface use of our hills for the recreational enjoyment of our residents and the protection of the abundant wildlife that now make our Whittier Hills their home, with the potential for sub-surface mineral extraction of the water, gas, and oil that lie beneath the surface.

Advertisement

We have instructed Matrix Oil to immediately fund a habitat study to be performed by LSA Associates to measure the current levels of animal and plant life in the hills so as to have a firm, verifiable benchmark of the health of our local ecosystem. This study will be done under the direct supervision of the Puente Hills Native Habitat Preservation Authority to assure its unbiased results. With these results in hand, it is our desire to develop an operations plan with Matrix that could then be subjected to a full Environmental Analysis by a qualified, independent expert. This expert would be hired by the City, but the costs would be fully paid by Matrix.

If, and only if, it is determined that this co-existence can be appropriately designed to meet our goals of absolute open space protection and preservation, we could then consider the minimum drilling of test facilities to evaluate the potential for the extraction of these sub-surface minerals.

As an example, the current Matrix facilities in the City of Whittier operate 20 wells on less than an acre of property. This property is screened from the neighbors and in no way resembles the oil fields that we've historically seen operated in other producing regions like Santa Fe Springs. The well facilities are underground and not visible from the street. With the industry's current technology, our minerals could be effectively mined with the same number of wells. These wells could be located in a manner so as to be undetectable to the residents of Whittier from their homes or day-to-day activities and could be compatible with the wildlife who call our hills their home.

Are we trying to sell the Whittier Hills?

No.

Have we made a deal with Matrix or any other oil company for the extraction of our mineral reserves?

No. We have actively worked with Matrix to determine what would be required to protect our hills before we are even willing to enter into a business relationship.

When you make a 'deal', how will the public know of its terms and conditions?

This is a public process and the information (environmental, feasibility test results, and financial terms) upon which a decision will be based will be disclosed to the public and the City Council for a complete review and deliberation prior to a decision.

How are the Whittier Hills benefitted from this?

Any discussions with a company about the extraction of our minerals starts with the absolute necessity for their operations to enhance not detract from the open space environment. Direct funding of additional investment in the hills and increased oversight of the hills (i.e. funding of an ecologist, ranger, or other open space management personnel to improve the hills) is a mandatory first discussion before the business of mineral extraction begins.

Why would we do this?

As everyone knows, in today's environment, all cities are challenged to provide services to their residents in a manner that doesn't require taxation above and beyond the current Prop 13 levels enacted decades ago. When the oil exploration of our hills by Chevron and Unocal was discontinued in the 1980's, they were extracting about 900 barrels of oil a day at a price of well under $20 per barrel. They no longer believed this to be an economically viable endeavor. Now, with oil prices reaching 4 and 5 times that level, the feasibility of extracting these minerals is now possibly economically viable.

How much does it cost the residents to do this?

None of the costs of the environmental assessment of the site will be paid for by the citizens of Whittier. If, and only if, we can be assured that the process is environmentally viable, we can move towards a testing and exploration phase which will also be paid entirely by the chosen mineral extraction company. Should those phases both prove viable, the mineral extraction company will have total financial responsibility for the cost of extraction.

Can we really make money on this?

It's really premature to speculate on the magnitude of revenue that could be generated from the extraction of these minerals. No environmental assessment has been done, no testing has been done, and no agreement has been reached with a company for the extraction of these minerals. However, it is possible that even a modestly successful extraction program could generate revenues equal to multiple car dealers or big box retailers.

Return to Top

Selected for you by our sponsor:

Death of boy in fall at Lakers game investigated *(Reuters)*
Newest Addition to AT&T SanDisk Memory Card Offerings Now Available *(MobileTechNews)*

You might also like:
Black Friday melee reported in Cerritos food court ***(this site)***
Montebello to eliminate police unit ***(this site)***

Local businesses related to this subject *view all*

La.com
Los Angeles City Guide | Los Angeles CA 90001

Larry The Tax Man
Accounting, Tax Services | Los Angeles CA 90064

Kadampa Meditation Center California
Buddhist Meditation Cente | Los Angeles CA 90031

advertise your business here

SHARE YOUR COMMENTS

Read all 8 comments »

Type in your comments below

Name (appears on your post)

Comments

Type the numbers you see in the image on the right:

Post Comment

Please note by clicking on "Post Comment" you acknowledge that you have read the Terms of Service and the comment you are posting is in compliance with such terms. ***Be polite.*** *Inappropriate posts may be removed by the moderator. Send us your feedback.*

Refinance Now 3.4% FIXED
$160,000 Mortgage: $547/mo. No Hidden Fees. No SSN Req.
www.Lendgo.com/Mortgage

1 Weird Tip To Belly Fat
Follow This 1 Rule And Lose 13lbs In 14 Days.
NewsHealth6.com

Mom's $5 Anti Aging Trick
Dermatologists DON'T Want You Knowing About This Skin Care
FDXNews.net

Ads by Yahoo!

EXHIBIT F

AUGUST 26, 2008 CITY COUNCIL MINUTES AND AGENDA - RESOLUTION OF INTENTION TO LEASE PROPERTY FOR PRODUCTION OF OIL

Agenda Report

Date: August 26, 2008

To: Stephen W. Helvey, City Manager

From: David A. Pelser, Director of Public Works

Subject: Whittier Main 2008 Mineral Extraction Lease

RECOMMENDATION

It is recommended the City Council:

1. Approve the Oil, Gas And Mineral Lease and other referenced documents for bidding in relation to a proposed Whittier Main 2008 Mineral Extraction Project;
2. Adopt the attached Resolution of intention to lease property for production of oil, gas and other hydrocarbons;
3. Authorize the City Manager to execute the Lease; and
4. Direct staff to publish the Resolution of intention as required by law and described in the Resolution.

BACKGROUND

The City owns approximately 1300 acres of former oil fields in the hills north of the developed areas of the City (see Exhibit A to the attached Resolution of Intention). This was commonly known as the Whittier Main Field which was in oil production for over 100 years. The majority of this land was purchased from Chevron and Unocal with Measure A funds in order to preserve this land as open space and wildlife habitat. This land is managed for the City by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority), a joint powers agency with members including the City of Whittier, County of Lo Angeles, Los Angeles County Sanitation Districts, and Hacienda Heights Improvement Association. When oil production stopped, the oil was worth about $12 per barrel. Today, the oil is valued at approximately $100 per barrel. If the oil could be successfully extracted now, the City could receive a new source of revenue for its General Fund in the form of royalty payments from an oil company. In addition to the change in value of the remaining oil deposits, technology has also changed. New methods of drilling and pumping are much less invasive to the surface land uses and the environment. We estimate the same 1300 acres of oil deposits could now be developed from approximately three surface sites of 2-3 acres each (less than half of 1% of the land). Furthermore, most of the drilling and pumping equipment can be placed in soundproof underground vaults that would not be visible. Therefore, it now appears feasible to access the valuable oil and gas resources while continuing to preserve our precious open space and wildlife habitat.

Project Concept

Extracting oil and natural gas will require an experienced oil company to partner with the City. The relationship with the oil company will be in the form of a mineral lease in which with the City will lease its mineral rights to the land and the oil company will pay

the city royalties on the oil and natural gas produced. Under State law, the City must use a competitive process to solicit bids for the mineral lease. The highest qualified bidder will then have the opportunity to explore and extract the oil and natural gas. The request for bids is accomplished in the form of a resolution of intention. Attached is a proposed RESOLUTION OF INTENTION TO LEASE PROPERTY FOR PRODUCTION OF OIL, GAS AND OTHER HYDROCARBONS and a proposed OIL, GAS AND MINERAL LEASE.

The successful bidder on the mineral lease must still apply to the City for a Conditional Use Permit (CUP) in order to do any work on the ground surface such as set up a drill rig, pumps, and other equipment required to actually extract the minerals. The CUP application will describe exactly what the oil company plans to do, and will define the "project" that will be subject to review under the California Environmental Quality Act (CEQA) which will require an Environmental Impact Report (EIR). The Draft EIR will be circulated for public comment. The proposed OIL, GAS AND MINERAL LEASE has no guarantee that the successful bidder will be able to obtain a CUP once the environmental impacts are presented in the EIR. Also, if a CUP is issued, it will contain many specific requirements and mitigation measures for the oil company to follow. City staff and the Habitat Authority have already given this much thought and cooperated to provide the attached List of Potential Mitigation Measures in order to inform potential bidders and the public of the extent of environmental protections expected to be include in any future CUP. While it is unusual to anticipate mitigation measures prior to preparing an EIR, staff wants the public and the bidders to be aware of the high value the City places on the open space and wildlife habitat uses of this land. The actual mitigation measures and CUP conditions will be determined later by the City Council following public review of potential environmental impacts disclosed in the EIR.

Project Schedule

At this time, our best estimate of a project schedule follows:

Date	Event
August 26, 2008	City Council adopts Resolution of Intention to Lease Property for Production of Oil
	City receives bids on lease (bid for royalty amount)
	City Council awards Lease Agreement to highest bidder
3 – 8 months after lease awarded	Oil Company files application for Conditional Use Permit – identifies facilities and locations requested for exploration and production operations

Public Involvement

The public will have multiple opportunities to be informed and to comment while the process unfolds. Already, the City Council has heard a staff report at its meeting on April 22, 2008 and a presentation by Mayor Pro Tem Bob Henderson on June 24, 2008. Information was posted on the City's web site to keep the public informed. Several front page articles appeared in the Whittier Daily News. The CEQA process including the preparation of an EIR will include multiple opportunities for public review and comment, as will the consideration of issuing a CUP. All through this process, there will be several government agencies which will have additional permitting and oversight authority to impose additional project requirements. For example, the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) has multiple regulations related to oil and natural gas exploration and production.

City Project Team

The City Manager assembled a team of key staff and consultants to work together in assessing the feasibility of a project to extract minerals from City-owned land in the Whittier Hills area. Specific staff members involved will vary according to the needs of the project at any particular time. During the preparation of the proposed RESOLUTION OF INTENTION and OIL, GAS AND MINERAL LEASE the City team included the following:

Bob Henderson, City Councilman and Chairman of the Board of the Puente Hills Landfill Native Habitat Authority
Steve Helvey, City Manager
Dick Jones, City Attorney
David Pelser, Public Works Director
Jeff Collier, Community Development Director
Rod Hill, Controller

Jim Day, Partner with Day Carter Murphy, LLP law firm
Kyle Rhorer, Vice President of RW Beck (finance and procurement specialist)
Tom Walker, Vice Pres. of Evans and Walker Consulting Petroleum Engineers

DISCUSSION

In this discussion section are presented some of the key features of the proposed bidder submittal requirements and proposed lease agreement provisions.

Request for Bids

The Resolution of Intention serves as a request for bids and must be published four consecutive weeks in the Daily News prior to receiving bids. This will comply with State law.

Also in compliance with State law, there will be only one variable on which to bid – royalty payments to the City. The Royalty payments are set at a minimum bid of 20% initial royalty plus an additional increment as price or production increases. Bidders may bid higher initial royalty, a higher incremental royalty, or both. The royalty is based on either published market price or gross proceeds of sale per month. Royalty payments are made when production begins, even if it occurs during the Primary Term of the lease while rent payments are also paid.

Bidders are required to submit a check for $400,000 as initial deposit toward the City's costs including running the bid process and preparing an EIR. The deposit will be increased if City costs reach 90% ($360,000) of the initial deposit. Alternatively, a refund will be made to the Bidder if the City costs total less than the amount on deposit.

To protect the city from wasting time with unqualified bidders, the ROI includes Exhibit "B" - "Minimum Qualifications and Submittal Requirements". The bidders will be required to demonstrate their technical, financial, and experience qualifications. Only bidders that meet the minimum qualifications will be considered for award of a lease. The same minimum qualifications will be required as a condition of assignment of the lease should the successful bidder desire to assign the lease to another company at a later date.

Proposition A Compliance

The City's purchase of the Whittier Hills land subject to the proposed mineral lease was funded by a grant of Proposition A funds. Conditions of this funding prevent the City from using the land for anything other than open space. In order to make available for drilling and pumping approximately 8 acres of the surface in the 1300 acre mineral lease area, the City will have to either reimburse a portion of the Proposition A funds, or provide an additional comparable area of land that can be used for open space to compensate for that area used for surface facilities in oil production. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to compliance with this requirement. The proposed lease includes a provision that a CUP will not be issued by the City until a release from protected area status is obtained from the Proposition A District.

Limitations on Property Access

Prior to CEQA compliance and issuance of a CUP, the successful bidder will not be allowed to enter the property, except for visual inspections or surveys in support of preparing a CUP application.

Lease Payments During Primary Term

The Primary Term of the lease is three years, during which time CEQA compliance must be completed, a CUP issued, and drilling operations started. The first year's rental payment is $10.00 per acre (approximately $13,000) and is paid in advance with the

proposal submittal. The rent for the next two years total is $140.00 per acre, or approximately $182,000.

Funding for Ecologist and Habitat Enhancement
The proposed lease requires the successful Bidder pay the Habitat Authority a monthly Management Fee of $5,000, increasing to $7,000 when drilling operations begin. The lease also requires payment to the Authority a Habitat Enhancement Fee of $100,000 annually upon starting drilling operations. Both of these fees will be adjusted over time by a consumer price index.

Payment of Taxes
The proposed lease requires the successful bidder pay all taxes including property taxes.

Insurance
The proposed lease requires workers compensation coverage, $1,000,000 in employer's liability insurance and $5,000,000 in both auto and general liability insurance. It also provides for naming the City and the Habitat Authority as an additional insured.

Potential Mitigation Measures and CUP Conditions
As mentioned above in the Background Section of this report, the successful Bidder will have to apply to the City for a Conditional Use Permit. The CUP application will provide the basis for a project description that will be subject to CEQA review. Most likely, a full EIR will be required. CEQA compliance is likely to require mitigation measures be included in the proposed project. In addition, the City will likely have a number of conditions in a CUP. City staff and the Habitat Authority have already given this much thought and cooperated to provide the attached List of Potential Mitigation Measures in order to inform potential bidders and the public of the extent of environmental protections expected to be include in any future CUP. While it is unusual to anticipate mitigation measures prior to preparing an EIR, staff wants the public and the bidders to be aware of the high value the City places on the open space and wildlife habitat uses of this land. The actual mitigation measures and CUP conditions will be determined later by the City Council following public review of potential environmental impacts disclosed in the EIR. The actual conditions adopted may be even more extensive than this List. The attached List is in intended to serve as a starting point for public discussion and review.

Hazardous Substances, Pollution, Well Abandonment, Restoration
While there are many safeguards that will be in place in the lease, in State regulations, and in various permits to assure safe and environmentally responsible operations, the lease also holds the successful Bidder responsible for all hazardous substances, waste materials, spills, and environmental pollution that may occur. The Bidder will be responsible for any cleanup and restoration due spills, pollution, and the like.

Furthermore, the lease agreement includes reference to anticipated CUP conditions for establishment of a fund that will have sufficient moneys to pay for well abandonments and restoration of surface conditions upon completion of oil production operations.

Property Description
The Resolution of Intention uses a map (Exhibit A, attached) to identify the parcels of land that are intended to be subject to the lease. The lease agreement will include a more detailed and formal legal description which is available for review in the City Clerk's office.

FISCAL IMPACT

The recommended actions in this report have no immediate significant direct fiscal impact. Publishing the RESOLUTION OF INTENTION in compliance with State laws will result in a modest cost estimated to be on the order of several hundred dollars. Once bids are received and analyzed, the fiscal impact of awarding a lease agreement could result in significant revenues to the City, perhaps on the order of magnitude of the tax revenues from a large car dealer or big box retailer (several millions of dollars annually).

The successful Bidder on the mineral lease will have to reimburse the City for these and other costs including the preparation of an EIR. The Bidder is required to submit a check for $400,000 as a deposit towards the City's total estimated costs including the EIR. The City will select the EIR consultant and manage the CEQA process. Similarly, the City selected the other consultants in the City's project team indicated above.

Submitted by:

David A. Pelser
Director of Public Works

Attachments: Attachment A - Resolution of Intention to Lease
Exhibit A – Property Map
Exhibit B – Minimum Qualifications of Bidders
Attachment B - Proposed Oil, Gas and Mineral Lease
Exhibit A – Property Legal Description
(on file with City Clerk)
Attachment C - List of Potential Mitigation Measures

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WHITTIER, CALIFORNIA, OF INTENTION TO LEASE PROPERTY FOR PRODUCTION OF OIL, GAS AND OTHER HYDROCARBONS

THE CITY COUNCIL OF THE CITY OF WHITTIER, CALIFORNIA, DOES RESOLVE AS FOLLOWS:

SECTION 1. The City Council of the City of Whittier that said Council hereby finds that the public use of the property hereinafter described will not be substantially interfered with by a lease for a production of oil, gas and other hydrocarbons in the form herein provided for. The property comprises, approximately, 1,280 acres situated in the County of Los Angeles, State of California, and is described in Exhibit "A" attached hereto (the "Property"). A complete legal description of the Property is attached to the form of oil and gas lease on file and available for inspection as set forth below.

SECTION 2. The Council on behalf of the City intends to lease all or any part of the property hereinafter described for the production of oil, gas and other hydrocarbons for the term and at the rental hereinafter stated, and at the royalty specified in the prevailing bid. The lease to be executed shall be substantially in the form of the proposed oil and gas lease on deposit and available for inspection at the office of the City at 13230 Penn Street, Whittier, California 90602, to which form reference is hereby made. The primary term of the lease shall be three (3) years with a secondary term so long thereafter as operations are continuously conducted or there is production in paying quantities as provided in the form of lease on file; the rental to be paid shall be Ten Dollars ($10.00) per acre for the first year of the primary term, with the second and third years rental to be paid together in the total amount of One Hundred Forty Dollars ($140.00) per acre of land still subject to the lease at the earlier to occur of the first anniversary of the lease or prior to entry on the leased land to commence operations pursuant to any Conditional Use Permit which may be applied for by the Lessee and issued by the City of Whittier therefore in the City's discretion; and Lessor's royalty shall not be less than Twenty percent (20%) on the first $1,500,000.00 in market price (if leased substances are produced but not sold) or gross proceeds of sale of leased substances produced in any calendar month ("Initial Royalty"), plus an additional One and One-Quarter percent of One Hundred percent (1.25% of 100%) on each incremental $250,000.00 in market price (if leased substances are produced but not sold) or gross proceeds of sale of leased substances produced in any calendar month ("Incremental Royalty"), but the highest total royalty need not be in excess of Fifty percent (50%). The lease shall continue for a period in no event in excess of three (3) years and as long thereafter as drilling or producing operations are conducted on the property. The one variable, biddable factor on which bids will be received shall be royalty. Each bidder must stipulate in its bid the royalty to be paid, which shall not be less than as stated above. A variable royalty of not less than the herein stated minimum

royalty may be bid, with a higher Initial Royalty, a higher Incremental Royalty, or both. The increments in market price or gross proceeds of sale ($250,000.00) which trigger Incremental Royalties may not be altered. The City reserves complete discretion to determine which is the highest and best royalty bid, but will apply at least the following assumptions in evaluating bids: production at the rate of 30,000 barrels of oil or equivalent per month and a price of $100.00 per barrel.

SECTION 3. Prospective bidders should note that the form of oil and gas lease to be utilized prohibits any entry on the surface of the property, other than for visual inspection and surveying in support of an application for a Conditional Use Permit, until such time, if any, as: (i) the successful bidder/lessee has applied for a Conditional Use Permit to conduct operations; (ii) Environmental Review therefore under the provisions of the California Environmental Quality Act and applicable guidelines has been conducted at the expense of the successful bidder/lessee, considered by the City of Whittier, adopted and becomes final, (iii) a Conditional Use Permit therefore has been issued by the City of Whittier, in its sole discretion, and (iv) the City will not issue a Conditional Use Permit until the City has obtained a release from protected area status of that portion of the leased land upon which surface operations are allowed under an issued Conditional Use Permit from the "Los Angeles County Proposition A District." Prospective bidders should also note that: (i) the City contemplates that it may put in place an open space/conservation easement encompassing any portion of the property which does not become permitted for oil and gas operations pursuant to any Conditional Use Permit which may be issued therefore; (ii) the City maintains on file and available for inspection with the form of lease a statement of potential mitigation measures which, subject to modification through the Environmental Review and CUP Issuance Process, which must be followed in commencing and conducting operations on the property; and (iii) the form of lease provides for lessee's direct payment to the Puente Hills Landfill Native Habitat Preservation Authority of (i) a Management Fee of $5,000.00 per month upon issuance of a Conditional Use Permit to conduct operations and acceptance thereof by lessee, increasing to $7,000.00 per month upon commencement of drilling operations, and (ii) a habitat enhancement fee of $100,000.00 per year upon commencement of drilling operations.

SECTION 4. October 2, 2008, at the hour of 2:00 p.m. in the office of the City at City Council Chambers at 13230 Penn Street, Whittier, California, 90602, is hereby fixed as the time and place where all sealed proposals received shall be opened in public session, will become public documents and will be examined and recorded by City staff, and the property leased to the highest responsive, responsible bidder with appropriate operational capability, in the sole judgment of the Council, at a later public session to be noticed at such public opening. No oral bids will be received. The Council reserves the right to reject any and all bids, to withdraw any and all of the property from lease, and to determine the financial and other responsibility and operational capability of all bidders. Each bidder shall provide a statement of qualifications in accordance with the requirements set forth on Exhibit "B" attached

hereto with the financial qualifications to be placed in a separate sealed envelope (which financials the City will assert are confidential under the California Public Records Act) within their sealed bid package.

SECTION 5. This Resolution be published once a week for four (4) successive weeks in the Whittier Daily News, a newspaper of general circulation in the County where the property is situated. A condition to the award shall be the commitment of the successful bidder to reimburse the City for the cost of publishing this Resolution and for the attorneys' and other consultants' fees incurred by the City in connection with the proceedings leading up to the execution of the Lease (herein, "Costs"). All bids must be accompanied by a check in the amount of $400,000.00 payable to the City, which check for the selected bidder will be cashed and must clear as a condition of award to the selected bidder and will be held as a deposit by the City and applied by the City toward the successful bidder's commitment to reimburse the City for its Costs and the first year delay rental under the Lease, and will be applied toward the successful bidder's responsibility for application fees and environmental review costs, if and as incurred, ("Review Costs") in connection with an application for a Conditional Use Permit for the conduct of operations under the Lease. Any portion of the successful bidders' deposit not expended for Costs, the first year delay rental and Review Costs at the time of Lease expiration or surrender shall be returned to the Lessee. To the extent that Costs, first year delay rental and Review Costs exceed the sum of $360,000.00, the successful bidder will be required to make a further deposit in an amount to be reasonably determined by the City, subject to refund as above provided.

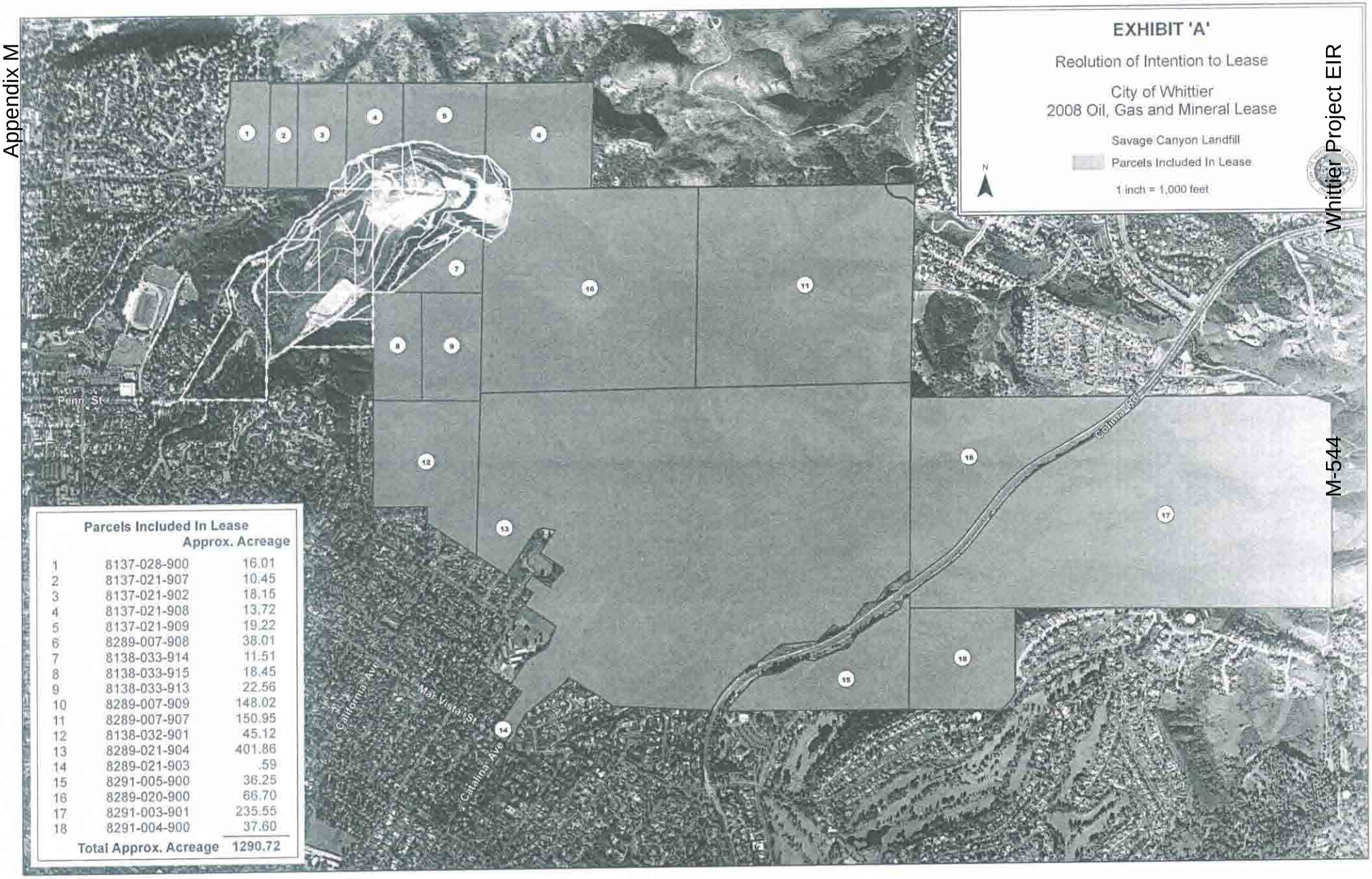
SECTION 6. The City Clerk-Treasurer shall certify to the passage and adoption hereof.

APPROVED AND ADOPTED this _____ day of _____ 2008.

_____
JOSEPH A. VINATIERI, Mayor

ATTEST:

_____
KATHRYN A. MARSHALL
City Clerk-Treasurer



Parcels Included In Lease		Approx. Acreage
1	8137-028-900	16.01
2	8137-021-907	10.45
3	8137-021-902	18.15
4	8137-021-908	13.72
5	8137-021-909	19.22
6	8289-007-908	38.01
7	8138-033-914	11.51
8	8138-033-915	18.45
9	8138-033-913	22.56
10	8289-007-909	148.02
11	8289-007-907	150.95
12	8138-032-901	45.12
13	8289-021-904	401.86
14	8289-021-903	.59
15	8291-005-900	36.25
16	8289-020-900	66.70
17	8291-003-901	235.55
18	8291-004-900	37.60
Total Approx. Acreage		1290.72

EXHIBIT B TO RESOLUTION OF INTENTION
Minimum Qualifications and Submittal Requirements

I. Introduction

This Exhibit B presents the City's Minimum Qualifications and Submittal Requirements for all Bidders wishing to pursue the Whittier Main 2008 Mineral Extraction Project by submitting a bid to the City for an Oil, Gas, and Mineral Lease.

The City has established certain Minimum Qualifications and Submittal Requirements in order to ensure a level playing field among respondents and to protect the interests of the City, its residents and its stakeholders.

II. Minimum Qualifications

A. Single-entity Project Guarantor

If the Bidder is unable to demonstrate to the reasonable satisfaction of the City through the below described financial submittals a positive net worth of not less than $50,000,000.00 U.S. Dollars, the Bidder must identify a single-entity Project Guarantor that will unconditionally guarantee performance of all obligations and compliance with all requirements of the Oil, Gas, and Mineral Lease to be issued by the City of Whittier. The Project Guarantor must possess and demonstrate adequate financial resources to meet its contractual requirements, as reflected in criteria further described below.

B. Compliance with California Public Resources Code

The Bidder must agree to comply with the blanket indemnity bonding provisions as described in California Public Resources Code Division 3, Chapter 1, Article 4, Section 3205.

C. Experience of principals

The Bidder's Principals must possess and demonstrate at least twenty-five (25) years of combined experience in the exploration and development and production of oil resources.

D. California experience

The Bidder must possess and demonstrate experience in operating oil extraction facilities in the State of California within the last five (5) years.

E. No felony convictions

No principal member on the Bidder team may have a felony conviction.

F. No bankruptcy filings

No Bidder or Project Guarantor may have filed for bankruptcy within the last twenty (20) years.

G. Profitability

The Bidder and Project Guarantor, if applicable, must demonstrate at least 5 continuous years of profitability.

H. Positive and minimum net worth

The Bidder and Project Guarantor, if applicable, must possess and demonstrate a positive net worth for the last five (5) years, and either the Bidder or, if applicable, the Project Guarantor must possess and demonstrate a current positive net worth of at least $50,000,000.00 U.S. Dollars.

I. Access to credit

The Bidder or, if applicable, the Project Guarantor must demonstrate its ability to access at least a ten million U.S. dollars ($10M) line of credit.

III. Submittal Requirements

It is the Bidder's responsibility to demonstrate compliance with each of the Minimum Qualifications presented above. The City reserves the right to request additional information should any Bidder's response lack adequate information.

Any information that Bidders or Project Guarantors consider confidential must be submitted in a sealed envelope identified as such. While the City will use its best efforts to protect the confidentiality of this information, it is the Bidder's or Project Guarantor's responsibility to defend any legal challenges to the confidentiality protection of the information.

At a minimum, Bidders are requested to provide the following information:

A. Team organizational structure

Bidders shall provide an organization chart and narrative discussion that describes the overall team structure, responsibilities, Principal reporting relationships and subcontractor relationships (if applicable). The Project Guarantor, if applicable, must also be identified and a Project Guarantor Acknowledgement Form must be signed and returned with the Bidder's submittal (see below for sample form).

PROJECT GUARANTOR ACKNOWLEDGMENT
(to be typed on Project Guarantor's Letterhead)

_____ ("Bidder") has submitted herewith a
Bid in response to the City of Whittier, California ("City") to provide services under the Whittier Main 2008 Oil Extraction Project and the City's Oil, Gas, and Mineral Lease.

The Project Guarantor hereby certifies that it will irrevocably, absolutely and unconditionally guarantee the performance of all of the Bidder's obligations under the Oil, Gas, and Mineral Lease negotiated by the parties.

Name of Guarantor: _____

Name of Authorized Signatory:
_____

Signature: _____

Title: _____

B. Team qualifications and experience

Bidders shall provide information to adequately demonstrate the qualifications of the team (including subcontractors, if applicable) in the exploration, development, production and operation of oil resource facilities. This information should include applicable project descriptions.

As reflected above, California-specific operations experience shall also be provided.

C. Team Principals qualifications and experience

In addition to the team qualifications and experience information provided, Bidders must also provide information reflecting the relevant experience of individual Principals and other team members in the exploration, development, production and operation of oil resource facilities. This information should include individual resumes for key project personnel. California-specific operations experience shall also be provided.

D. Financial statements and disclosures

Each Bidder (**and** its Project Guarantor, if applicable,) must demonstrate their financial strength and ability to meet the Minimum Requirements described above.

If applicable, three (3) years of annual SEC filings (10K / 10Q) must be provided.

If the Bidder and/or Project Guarantor, if applicable, are not required to make periodic filings with the SEC, three (3) years of the most recent audited financial statements for both the Bidder and its Project Guarantor (if a separate entity) must be provided. Financial statements must include, at a minimum, balance sheets, income statements and statements of changes in financial position.

Bidders must also disclose any outstanding litigation that could materially and adversely affect its financial condition if judgment is brought against the Bidder. Such information shall also be provided for the Project Guarantor if applicable.

Bidders must also disclose past or current bankruptcies, felony convictions, debarments, and material financial changes of Principals and/or the Project Guarantor, if applicable, since the date reflected in the submitted financial statements

E. Financial institution letters of intent

Bidders must provide preliminary letters of intent from established financial institutions reflecting the Bidder's or, if applicable, the Project Guarantor's ability to secure credit as required by the Minimum Qualifications.

OIL, GAS AND MINERAL LEASE

THIS OIL, GAS AND MINERAL LEASE (hereinafter "Lease") is, made and entered into this ___ day of _____, 2008, by and between the **CITY OF WHITTIER**, a charter municipality of the State of California with a mailing address at 13230 Penn Street, Whittier, CA 90602 (hereinafter called "Lessor"), and _____, a _____, with a mailing address at _____ (hereinafter called "Lessee").

WITNESSETH: Lessor, for and in consideration of the rental paid upon execution hereof, receipt of which is hereby acknowledged, and Lessee's covenants and agreements hereinafter contained, does hereby lease, let and demise unto Lessee the land hereinafter described (hereinafter called the "Leased Land"), subject to the covenants, conditions and limitations hereinafter set forth, for the purposes and with the exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land, similar to the above-mentioned substances except for water (but not excepting water which may be produced in association with leased substances which may be used by Lessee in its operations on the Leased Land, but not sold) and geothermal resources (hereinafter collectively called "substances") and producing, extracting, taking, treating, storing of oil, removing and disposing of such substances from the Leased Land together with the right to construct, erect, maintain, operate, use, repair, replace and remove pipelines, telephone, telegraph and power lines, tanks, machinery, appliances, buildings, and other structures, useful, necessary or proper for carrying on its operation on the Leased Land, and rights-of-way for passage over, upon and across and ingress and egress to and from the leased land, or neighboring lands pooled therewith for any or all of the above-mentioned purposes. Lessor shall have the right to occupy and use the leased land in any manner and to any extent not inconsistent with Lessee's rights or in interference with Lessee's operations hereunder. The land hereby leased is situated in the County of Los Angeles, State of California, and described in Exhibit "A", attached hereto and incorporated herein by this reference, and containing 1,280 acres, more or less.

The parties hereby agree as follows:

1. **Term**. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

2. **Rental, Management Fee and Habitat Enhancement Fee.**

2.1 **Rental**. Lessee has paid to Lessor rental in full hereunder for the first twelve months of the term hereof. If Lessee has not commenced drilling operations on the leased land or terminated this lease within that time, Lessee, commencing with the earlier to occur of (i) the expiration thereof or (ii) Lessee's entry on the leased land to commence operations pursuant to any Conditional Use Permit which may be issued therefore by the City of Whittier shall pay or tender to Lessor in advance, as rental for the remaining two (2) years of the primary term hereof, the sum of One Hundred Forty Dollars ($140.00) per acre for so much of the said land as may then still be held under this lease at the time of payment which payment or tender shall operate as rental and as consideration for deferring the commencement of drilling operations for a period of two (2) years from the expiration of that period for which and advance rental has been paid. The commencement of drilling operations may then be deferred for up to but not beyond the balance of the paid up primary term hereof.

2.2 **Management Fee and Habitat Enhancement Fee**. Lessee shall pay the following management fee and habitat enhancement fee to the Puente Hills Landfill Native Habitat Preservation Authority:

(a) Management Fee. The sum of Five Thousand Dollars ($5,000.00) per month commencing on the date of acceptance in writing by Lessee of a Conditional Use Permit issued by the City of Whittier in accordance with the provisions of Paragraph 6.1, hereof, which management fee shall be increased to Seven Thousand Dollars ($7,000.00) per month commencing on the commencement of drilling operations (as defined in Paragraph 17.(a), hereof), and continuing monthly thereafter.

(b) Habitat Enhancement Fee. The sum of One Hundred Thousand Dollars ($100,000.00) per year commencing on the date of commencement of drilling operations (as defined in Paragraph 17.(a), hereof) on the Leased Land pursuant to an issued and accepted Conditional Use Permit and continuing annually thereafter on or before each next ensuing anniversary of the date of Lessee's acceptance of such Conditional Use Permit.

(c) CPI Adjustment of Management Fee and Habitat Enhancement Fee. The foregoing management and habitat enhancement fees shall be increased annually in a percentage equal to the percentage increase, if any, in the U.S. Department of Labor Consumer Price Index, All Goods-All Consumers, for the Los Angeles Metropolitan Area (or a reasonably equivalent replacement index to be selected by Lessor if such index is no longer published) commencing on the second anniversary of the date on which both such fees were paid.

(d) Credit for Portion of Incremental Royalty. If and to the extent that Lessee pays a portion of an incremental increase in royalty hereunder to the Puente Hills Landfill Native Habitat Preservation Authority pursuant to Paragraph 7.7, hereof, such incremental royalty amount paid each year to the Puente Hills Landfill Native Habitat Preservation Authority shall be a credit against the next ensuing management fee and habitat enhancement fee.

3. **Payments and Notice**.

3.1. **Payments**. The payments required to be paid by Lessee hereunder shall be made by check made payable to, and mailed to:

To the City of Whittier:
City of Whittier
ATTN: David Pelser
13230 Penn Street
Whittier, CA 90602

To the Puente Hills Landfill Native Habitat Preservation Authority:
Puente Hills Landfill Native Habitat Preservation Authority
ATTN:_____
_____
_____

3.2. **Notice**. Any notice to be given by either party to the other hereunder may be delivered in person or by registered or certified mail, postage prepaid, addressed to the party for whom intended as follows:

To Lessor at:

City of Whittier
ATTN: David Pelser
13230 Penn Street
Whittier, CA 90602

To Lessee at:

_____
_____
_____

Either party may from time to time, by written notice to the other, designate a different address which shall be substituted for the one above specified. If any notice from one party to the other is given by registered or certified mail, service of notice will be considered made on the date of mailing if properly addressed and postage is fully prepaid.

4. **Drilling Schedule**.

4.1. **Drilling Within Primary Term.** Subject to the terms of Paragraph 2 above and Paragraph 6.1, below, Lessee shall, on or before the expiration of the Primary Term, commence and diligently prosecute the drilling of at least three wells to a depth adequate to test the Miocene Puente Formation, (the "Initial Test Wells") failing in which this Lease shall terminate, save and except for the Well Tract for such well theretofore drilled and completed as a well capable of producing in paying quantities, together with continuing nonexclusive rights to utilize

the drill or well site and routes of ingress and egress and pipeline purposes therefor. Thereafter, Lessee shall engage in continuous drilling operations as provided in Paragraph 4.2, below.

4.2. **Continuous Operations.** If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at any one time, the continuous development obligation shall not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production.

Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled.

5. **Offset Wells.**

5.1. **Offset Distances.** If, after the date of this lease, a well is drilled and completed as a well capable of producing in paying quantities on adjoining property in which Lessor has no interest and the producing interval location thereof is at that time ascertainable and within 1320 feet of the exterior limits of any land embraced in this lease, or, if the producing interval location of such well is not ascertainable at that time, but the surface location thereof is within 1320 feet of the exterior limits of any land at the time embraced in this Lease, and gas (unassociated with oil) but not oil, is capable of being produced therefrom in paying quantities, or within 660 feet and oil is capable of being produced therefrom in paying quantities, unless a well offsetting the same has been completed or is being drilled by Lessee on the Leased Land, Lessee, subject to its right to quitclaim as herein provided, within forty-five (45) days after it is ascertained that the production of oil or gas from the well to be offset is occurring in paying quantities shall commence drilling operations at a suitable offset location, as hereinafter defined, to offset such well and drill and complete the same diligently to protect the Leased Land from drainage.

5.2. **Zonal Offset.** Lessee shall offset such outside well by drilling to the same producing formation or zone as the well to be offset, and no well existing or being drilled on the Leased Land shall satisfy this offset requirement unless drilled to the same producing formation or zone from which oil or gas is being produced by the well to be offset, and at a suitable offset location as hereinafter defined. The requirements of Paragraph 4 shall not relieve Lessee of this obligation to offset any producing well in a different strata or zone from that in which production is obtained on the Leased Land. For the purpose of satisfying obligations hereunder, an offset well or wells shall be considered as other wells required to be drilled hereunder.

5.3. **Additional Offset.** Notwithstanding anything in this Lease to the contrary, the offset requirements contained in Paragraph 5 shall constitute a minimum offset requirement only. Lessee shall drill and produce competitively offset wells at such times, to such depths, and at such locations upon the Leased Land as may be necessary to protect all zones remaining subject to this Lease from drainage by wells on other lands.

5.4 **Optional Compensatory Royalty in the Event of Lessee's Offset Default.** In addition to any other remedies available to Lessor under this Lease or under California law, should Lessee fail to quitclaim or

drill and produce an offset well within the time provided in this Paragraph 5 or in the manner provided in this Paragraph 5, at Lessor's election to be exercised by written notice from Lessor to Lessee, Lessee shall be obligated to pay to Lessor a compensatory royalty in the royalty share provided in Paragraph 7.1 hereof, at the highest price being paid in the vicinity for substances being produced in the well to be offset, upon one-half of the production volume of the well to be offset until such time as Lessee has complied with the provisions of Paragraph 5 of this Lease. Provided, however, nothing contained in this Article 5 shall require the drilling of a well, or payment of compensatory royalties, to offset a well in which Lessee holds no interest whose reasonably anticipated production will not pay the actual costs of drilling, completing and producing of such well.

6. Operations.

6.1. **No Surface Entry Unless and Until Conditional Use Permit Obtained and CEQA Complied With**. Lessee shall not be entitled to make any surface entry on the Leased Land (other than for visual inspection or surveying purposes in support of an application for a Conditional Use Permit) unless and until: (i) a Conditional Use Permit has been applied for at the City of Whittier for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes and, if desired by Lessee, for the conduct of a seismic survey, (ii) environmental review under the California Environmental Quality Act ("CEQA") has been conducted and paid for by Lessee, (iii) a Conditional Use Permit has been issued by the City of Whittier, in its sole and absolute discretion; and accepted in writing by Lessee within a period of ten (10) days of the date of its issuance, and (iv) no Conditional Use Permit will be issued by the City of Whittier until Lessor has obtained a release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. The terms and conditions of any Conditional Use Permit which may be issued by the City of Whittier, including any mitigation measures and monitoring plans which may arise in the cause of any CEQA review thereunder, shall be deemed incorporated into this Lease as terms and conditions thereof.

6.2. **Lessee to Use Good Oil Field Practice**. Except as herein otherwise provided, Lessee shall drill and operate each well in accordance with good oil field practice, and in material compliance with any conservation or curtailment programs imposed by law or governmental agency with jurisdiction over operations on the Leased Lands. Lessee shall comply in all material respects with all state, federal and local laws and with the rules, regulations and orders of any federal, state or other governmental agency having jurisdiction in the Leased Land with respect to the spacing, drilling or producing of wells, or other operations for oil or gas, and if there be any conflict between the same and provisions of this lease, such laws, rules, regulations and orders shall modify or supersede, as the case may be, the relevant provisions of this lease.

6.3 **Protection of Leased Land From Liens/Indemnification**. Lessee shall at its own risk and expense provide and promptly pay for all labor, equipment and supervision of whatever kind or nature that may be needed to carry on the operations hereunder and to perform the requirements of this Lease, and nothing herein contained shall obligate Lessor to reimburse Lessee for any costs incurred by it hereunder or to return to or repay to Lessee at any time any sums paid to Lessor pursuant to the provisions of this Lease. Lessee agrees to pay all damages, losses and expenses incurred by Lessor and to defend, indemnify and to hold Lessor and the Leased Land free and harmless of and from all damages, losses, expenses (including attorneys' fees in any action arising out of matters herein set forth), liens, liability to or claims of others (including, but not limited to, surface owners, if other than Lessor, surface tenants and other oil and gas lessees) or injury to the Leased Land which result from or, in anyway arise out of or in connection with (a) any of the operations of Lessee on said lands, (b) the exercise by Lessee of any of its rights hereunder, (c) the doing of any labor or the furnishing of any materials or supplies to or for Lessee, (d) any act or failure to act on the part of Lessee or of any contractor engaged in doing work for Lessee, (e) any breach by any contractor engaged in doing work for Lessee, (f) any breach by Lessee or its contractors of any of the provisions of this Lease, or (g) the Lessee's release or threatened release of pollutants, contaminates, hazardous substances, gas or petroleum on, under, about or from the Leased Land. This obligation to defend and indemnify shall not be subject to, reduced or barred by any theory of consent, assumption of the risk, contributory or comparative negligence, not amounting to gross negligence on the part of Lessor or its agents, employees, contractors, or invitees (but not including any commercial lessees of Lessor hereunder), or any other risk or loss shifting theory at law or in equity. This obligation to defend and indemnify and hold harmless shall survive any

termination or expiration of the lease or assignment of the Lease by Lessee, without limitation, and shall not be limited in any manner by the insurance requested in Paragraph 10., hereof.

6.4. **Enhanced Recovery Operations**. Lessee shall not engage or participate in any steam injection or or tertiary recovery operation upon or affecting the Leased Land without first submitting a detailed plan of the proposed operation to Lessor and obtaining Lessor's written consent thereto, which consent may be granted, withheld or conditioned at Lessor's sole discretion. With respect to any secondary recovery operations such as waterflood or pressure maintenance operations, Lessee shall submit a detailed plan of the proposed operation to Lessor and obtain Lessor's written consent thereto, which consent shall not be unreasonably withheld; provided, however, that if it is determined that a Conditional Use Permit is required for such flood, pressure maintenance or other enhanced recovery operation, such Conditional Use Permit must be applied for and obtained and Lessor's discretion as to the issuance of such Conditional Use Permit shall not be limited in such manner.

6.5 **Plugging and Abandonment and Site Restoration Fund or Bond.** The cost of plugging and abandoning any well drilled by Lessee and the cost of abandoning a well site which may be permitted by issuance of a Conditional Use Permit, together with the cost of site restoration and revegetation and habitat restoration shall be established to the reasonable satisfaction of the City of Whittier through the Conditional Use Permit issuance process, and, if a Conditional Use Permit is issued, Lessee shall establish out of Lessee's share of production of leased substances, without impact on Lessor's royalty share, a segregated sinking fund to cover the costs thereof, or in lieu thereof a bond reasonably acceptable to the City of Whittier, in accordance with the terms and conditions of any such issued Conditional Use Permit.

6.6 **Request for Additional Sites.** In the event that Lessee has drilled six wells on the Leased Lands, then Lessee shall have the right to request from Lessor one or more additional drillsites, subject to Lessee applying for and obtaining a Conditional Use Permit therefor and obtaining a release of any such additional sites from protected area status from the Los Angeles County Proposition A District. Lessor may in its sole discretion and for any reason deny or grant Lessee the right to construct any such additional site.

7. **Royalty.**

7.1. **Royalty Share**. The term "royalty share" as used herein means _____.

7.2. **Royalty on Oil**. Lessee shall pay Lessor as royalty on oil the market price of said royalty share of all oil produced or lost from the Leased Land after making customary adjustment or deductions for temperature, water and sediment. In computing royalties all gravities shall be taken on the basis of oil containing not in excess of three percent (3%) water and other basic sediment. If Lessee sells said oil to an unaffiliated third party, market price shall be deemed and said royalty shall be paid on the basis of the gross proceeds thereof.

7.3. **Royalty on Gas.** Lessee shall pay to Lessor the royalty share of the gross proceeds received from the sale of any gas (excluding residual dry gas from extraction of casinghead gasoline), while the same is being sold off said land, or from any payment pursuant to a gas contract for gas not actually taken, but nothing herein contained shall require Lessee to save or market gas from said land unless there shall be surplus above fuel requirements and a market at the well for the same. Where the Lessee utilizes gas off the Leased Land, or where, due to Lessee's operations, gas shall be lost from the said lands in volumes that would have been marketable had such volumes been captured, the royalty share shall be based upon the market price of such gas at the wellhead.

If casinghead gasoline is extracted from the Leased Land or lands pooled or unitized therewith by Lessee from the natural gas produced from wells on said lands, then Lessee shall pay to Lessor as royalty 50% of Lessor's royalty share of the market price of the gasoline and 50% of the market price of other hydrocarbons (including residual dry gas) credited to this lease from the gas so treated.

7.4. **Royalty on Other Substances.** Lessee shall pay Lessor as royalty the market price on the Leased Land, in the condition as produced, of the royalty share of any substance covered by this Lease, other than oil and/or gas and the products thereof, which Lessee may elect to produce and save or market or utilize from the Leased Land.

7.5. **Royalty to be Free of Certain Costs.** Notwithstanding anything herein to the contrary, all royalties herein shall be computed without any deduction or charge on account of any tax, cost or expense of exploration, development, extraction or production, cleaning, dehydration, treatment, processing, extraction, compression, transportation or delivery, or any other deduction or charge whatsoever, whether of the same or a different character but shall bear its proportionate part of any ad valorem real property tax or possessory interest tax which may be levied against the mineral rights leased to Lessee hereunder.

7.6. **Payment of Royalties.** Within one hundred twenty (120) days following the first sale of oil and/or gas from the lands described herein or lands pooled therewith, but in no event more than two hundred forty (240) days after the date of first production or loss of marketable quantities of any such substances from said lands, Lessee shall pay, or cause to be paid, to Lessor such sums as shall have accrued to Lessor as royalties under this lease and thereafter such payments shall be made monthly, on or before the last day of the month following the month of production thereto for oil and on or before the last day of the second month following production for gas, without the necessity of the execution by Lessor, or any other party, of a division or transfer order. Notwithstanding anything herein to the contrary, in the event such amounts accruing to Lessor as royalty total less than one hundred dollars ($100.00) such amounts may be remitted the earlier of annually or when such amounts shall exceed one hundred dollars ($100.00). All sums not paid timely shall bear interest at the highest lawful rate from the date they are due until the date payment is received by Lessor. Lessee shall reimburse Lessor for all reasonable attorneys' fees, court costs, filing fees, and other costs or expenses incurred in connection with any legal action or other collection effort initiated by Lessor due to Lessee's failure to pay royalties hereunder in a timely manner in which Lessor is found to be entitled to recover any royalties and/or interest. In the event of a conflict between the terms and conditions of any division or transfer order as Lessor may execute and this Lease, the latter shall prevail and shall not be amended thereby. Lessee shall furnish Lessor monthly statements showing the computation of royalties.

7.7 **Payment of a Portion of Incremental Increased Royalties to the Puente Hills Landfill Native Habitat Preservation Authority.** If and to the extent that an incremental increased royalty becomes payable to Lessor hereunder, Lessor may direct Lessee by written notice to Lessee, to pay a portion thereof directly to the Puente Hills Landfill Native habitat Preservation Authority.

7.8. **Minimum Royalty.** To the extent contemplated in the following sentence, upon completion of a well or wells on the Leased Land capable of producing gas or oil in paying quantities, Lessee shall pay Lessor a minimum royalty hereunder of an amount equal to, and not less than, fifty dollars ($50.00) (minimum royalty) per acre annually for the total acreage held subject to this lease irrespective of the operation or suspension of operations of any such well or wells, or the curtailment of production therefrom. If at the expiration of any full calendar year following the Primary Term hereof, Lessor shall not have received royalties above an amount equal to the minimum royalty per acre as aforesaid, Lessee shall on or before the twenty-fifth (25th) day of January next succeeding pay to Lessor an amount equal to the difference between said royalties paid during the preceding calendar year and such minimum royalty per acre.

The minimum royalty payments provided for herein shall be deemed the equivalent of production and shall constitute performance under this Lease if Lessee shall make a diligent effort to obtain commencement of production from any gas and/or oil well completed on the Leased Land; provided, however, that Lessee shall not be privileged, in any event, to hold this Lease by actual production plus adjustment to minimum royalty, or by payment of minimum royalty alone, for more than three (3) years, cumulatively.

8. **Ownership.**

8.1. **No Warranty of Title.** This Lease is made without warranty of any kind as to title. Lessee accepts as satisfactory to itself the title of Lessor in the Leased Land and agrees that Lessor shall not be liable or responsible to Lessee in damages or otherwise by reason of any defects in or any liens or encumbrances on Lessor's title or any want of title in Lessor to the Leased Land, or any portion thereof, or to any hydrocarbons therein contained or found or produced thereon or taken therefrom. If any third party asserts any claim against Lessor on account of Lessee's extraction or removal of hydrocarbons from the Leased Land or other operations of Lessee thereon (including, without limiting the generality of the foregoing, any governmental or other action or proceeding for the abatement of a nuisance or the cleanup, removal or other protection against a hazardous waste as now or hereafter defined), Lessee will defend and indemnify and hold Lessor harmless from all such claims except such portion

thereof as represents a claim to Lessor's royalty, provided that upon receiving notice thereof, Lessor shall notify Lessee with reasonable promptness of the bringing of any action or the assertion of any such claim and shall allow Lessee to have Lessee's attorneys appear therein, either alone or in association with Lessor's attorneys (as Lessor may elect), in defending any such action on behalf of Lessor, each party paying the expenses of its own attorneys. Lessee shall promptly notify Lessor in writing of any judicial proceeding brought to the attention of Lessee, and affecting or purporting to affect, Lessee's possession or rights hereunder.

8.2. **Proportionate Reduction**. If Lessor owns a lesser interest in the oil, gas and other hydrocarbons in the Leased Land than the entire undivided fee simple estate therein, then any royalties, rentals and other payments herein provided for shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee; provided, however, that Lessor shall have no obligation to reimburse Lessee, retroactively, for any payments already made by Lessee to Lessor.

9. **Taxes**.

9.1. **Payment by Lessee**. Lessee shall at its own expense and without any reimbursement by Lessor pay and discharge before delinquency (a) all taxes, assessments and other governmental charges which, during the term of this Lease, shall be levied upon or assessed or charged against (1) the improvements and personal property constructed or placed upon the Leased Land by or for Lessee under this Lease; and (2) the Leased Land or any part thereof or any minerals or mineral rights or other rights therein; (b) all other taxes, assessments and other governmental charges upon or referable to any operations or acts of Lessee or on its behalf on the Leased Land; (c) all other assessments, charges and obligations of any kind whatever that by reason of any operation of Lessee may be or might become a lien upon or charge against the Leased Land, or any part thereof, or any well thereon, and that are created by or shall arise under or by reason of any present or future law, ordinance, regulation or order whatever; and (d) all taxes, assessments and governmental charges levied by or arising under any present or future law, ordinance, or regulation upon or with respect to this Lease, the execution or delivery hereof, or the leasing of the Leased Land hereunder.

Lessee shall, and hereby agrees that after hydrocarbons are discovered in paying quantities hereunder it will pay, to Lessor promptly upon demand, as supplemental royalty hereunder, an amount equal to each such tax, assessment and other governmental charge so paid by Lessor (including the portion thereof for the unexpired part of the fiscal year in which the discovery is made, prorated as of the completion date of the discovery well), except any portion of any such charge which is referable to personal property or major improvements of Lessor or to minerals not then subject to this Lease and being produced by Lessor or any third party.

9.2. **Tax Liens**. If any tax lien for taxes of the nature referenced in paragraph 9.1., above, is filed against the Leased Land and is not removed or released within thirty (30) days of the date the tax lien is recorded in the Official Records of the relevant County, this Lease, without notice or demand by Lessor, shall automatically terminate in its entirety.

10. **Insurance**. Lessee shall maintain in full force and effect, at its own expense, a policy or policies of worker's compensation insurance as required by the State of California, a policy or policy of Employer's Liability with limits of at least $1,000,000.00 per occurrence, a policy or policies of Automobile Liability covering all owned, non-owned and hired vehicles, with limits of at least $5,000,000.00 per occurrence, and a policy or policies of commercial general liability insurance insuring Lessee and Lessor as an additional insured (and such other persons, firms or corporations as are designated by Lessor as having an interest in the Leased Land) against any liability for death, personal injury or property damage arising out of or resulting from Lessee's operations hereunder. Such general liability insurance shall have an initial combined single event coverage of not less than Five Million Dollars ($5,000,000.00).

Upon request Lessee will furnish Lessor valid certificates of insurance certifying the above coverage or evidence satisfactory to Lessor that Lessee is qualified to self-insure. In the event Lessor should determine that Lessee is qualified to self-insure, it is agreed between Lessee and Lessor that the intent of the provisions noted above concerning additional insured and waiver of subrogation shall apply to such self-insurance.

Lessee agrees that the insurance required by this Agreement shall not be materially changed, cancelled, or allowed to lapse for any reason, without thirty (30) days advance written notice to Lessor. As long as the respective insurers so

permit, each insurance policy obtained shall provide that issuing insurance company waives all right of recovery by way of subrogation against Lessor. Lessee's failure to acquire and/or maintain the required insurance coverages with at least the specified limits, or failure to provide any requested certification thereof within thirty (30) days following receipt of a written request from Lessor, or any successor, shall be grounds to withhold or deny any assignment and/or terminate this Agreement as to all of the said lands not then assigned to Lessee at Lessor's election.

11. Surrender and Forfeiture.

11.1. **Removal of Equipment and Restoration.** Lessee shall have the right at any time to remove from the Leased Land any machinery, rigs, piping, casing and other property and improvements belonging to or furnished by Lessee, including that installed in wells or otherwise affixed to the land; provided that, if this Lease terminates in its entirety, such removal shall be completed within one hundred twenty (120) days thereafter and, in the event of the termination of this Lease as to a portion of the Leased Land, all such property not needed by Lessee for its operations on land retained under this Lease shall be removed from the land as to which this Lease is terminated within one hundred twenty (120) days after such partial termination and the remainder shall be removed within one hundred twenty (120) days after the termination of this Lease in its entirety. Lessee, after termination of this Lease, shall drain and fill all sump holes and other excavations made by it on the Leased Land and in all other respects restore the Leased Land as nearly to its condition existing on the date hereof as is reasonably practical and in accordance with the terms and conditions of any Conditional Use Permit issued therefore (including, without limitation, any revegetation and habitat restoration therein required), but Lessee shall not be obligated to restore anything for which it may theretofore have made payment acceptable to Lessor for damages. The obligation of Lessee to restore the Leased Land (set forth above) shall include the obligation to remediate any contamination arising from Lessee's exercise of any rights granted hereunder.

11.2. **Lessee's Right to Surrender.** Lessee, at its option, may at any time quitclaim and surrender all of the Leased Land, in which event this Lease shall terminate and Lessee shall be relieved of all obligations hereunder save and except the obligation to pay rents and royalties theretofore accrued and any obligation hereby imposed for removal of equipment and restoration or remediation of the Leased Land, and any tax or assessment which Lessee would be obligated otherwise to pay under Paragraph 9, hereof, prorated for any of the tax or assessment year for which Lessee held the Leased Land. Lessee, at its option, may at any time after drilling on the Leased Land or on land properly pooled with all or a portion of the Leased Land and from time to time thereafter, quitclaim and surrender any part of the Leased Land not desired by it (but only to all depths and strata in the surrendered acreage), and in such event the amount of any rental or minimum royalty provided for in this Lease shall thereafter accrue only on the basis of the land not so quitclaimed, and the number of wells to be drilled before the land may be deemed fully drilled shall be determined by the acreage retained. Land so quitclaimed, and any portion of the Leased Lands released pursuant to the partial termination provisions of this lease, shall remain subject to the easements and rights-of-way herein provided for so long as necessary to accommodate operations by Lessee on the retained part of the Leased Land or lands pooled therewith, including the right to dispose of produced water through Disposal Wells. Anything to the contrary herein notwithstanding, Lessee prior to drilling may make no partial release or quitclaim as provided under this Paragraph comprising less than forty (40) acres.

Lessee may at any time with respect to all of the Leased Land or, at any time or from time to time after drilling with respect to a designated part of the Leased Land subject to the acreage limitation provided herein, (a) surrender its right to produce oil, or (b) surrender its right to produce gas. A surrender of the right to produce oil shall include a surrender of the right to produce the gas that may be produced therewith. A surrender of the right to produce gas shall include a surrender of the right to produce associated liquids which may be produced therewith. A surrender of oil or gas rights in all the Leased Land will relieve Lessee of further obligation to drill wells for the released substance. A surrender of oil or gas rights in a part only of the Leased Land will reduce the number of required oil or gas wells to a number determined by the acreage as to which oil or gas rights are retained by Lessee. A surrender of oil rights shall have no effect on obligations to drill for the substance for which Lessee has retained its rights.

11.3. **Lessee's Obligation to Release Deep Rights.** One year following the later of the expiration of the primary term or the termination of the continuous development program, this lease shall terminate for all depths 100 feet and more below the stratagraphic equivalent of the deepest horizon from which a well drilled in the Leased Lands is then capable (without further drilling operations) of producing oil and/or gas, or either of them, in paying quantities.

11.4. **Lessee's Obligation to Surrender Undeveloped or Non-Producing Acreage.** One year following the later of the date on which the Leased Land is fully developed or Lessee has completed or abandoned its continuous development program under Paragraph 4, Lessee shall surrender and quitclaim to Lessor all of the Leased Land except as to Well Tracts surrounding (i) oil and gas wells then producing or capable of producing and on which reworking operations are timely performed and (ii) Injection Wells. Thereafter as to producing wells, if production ceases and there shall have been no production of hydrocarbons in paying quantities hereunder from a Well Tract retained by Lessee for a continuous period of one hundred eighty (180) days and in such time Lessee has not commenced and diligently prosecutes operations to convert such producing well into an Injection Well, this lease as to the subject Well Tract shall terminate and Lessee shall promptly surrender each such Well Tract to Lessor. With respect to Well Tracts held by an Injection Well, such Well Tract shall terminate at such time as Lessee permanently abandons injection operations at such well.

11.5 **Joint Use of Drill and Well Sites, Production Support Site, Access and Pipeline and Utility Routes Upon Partial Surrender or Termination of Lease.** In the event of the partial surrender or termination of this Lease, Lessee agrees that its rights to use of such drill and well sites and access and pipeline and utility routes as may be permitted by issuance of one or more Conditional Use Permits issued by the City of Whittier shall be nonexclusive, and that such sites and routes will be available for use by any oil and gas lessee obtaining an oil and gas lease from the City of Whittier or its successor for the exploration for and development of oil, gas or other hydrocarbons in the lands so released from this Lease, provided that: (i) such joint use would not unreasonably interfere with the remaining operations of Lessee under this Lease; (ii) that any such subsequent oil and gas lessee applies for and obtains a Conditional Use Permit therefore from the City of Whittier; and (iii) that any such subsequent oil and gas lessee shall not be entitled to utilize any tanks, pipelines or other production, transportation, marketing, treatment or sales physical facilities installed by Lessee unless there is adequate surplus capacity to the needs of Lessee and any such subsequent oil and gas lessee pays to Lessee fair value for such joint use of physical facilities of Lessee, including value for a proportionate part of the abandonment obligations hereunder.

12. **Force Majeure.**

12.1. **Suspension of Obligations During Force Majeure.** Performance of covenants and conditions imposed upon Lessee hereunder shall be excused while, and to the extent that, Lessee is hindered in or prevented from complying therewith, in whole or in part, by war, riots, strikes, lockouts, natural disasters, accidents, inability (after a thirty (30) day attempt) to obtain materials or services in the open market or to obtain transportation therefor, laws, rules, and regulations of any federal, state, municipal or other governmental agency or any other cause beyond the control of the Lessee, whether similar or dissimilar to those herein specifically enumerated and without regard to whether such cause exists at the date hereof or hereafter arises; provided, however, that (i) Lessee shall provide written notice to Lessor of any claim of suspension or excuse of Lessee's obligations under this Paragraph, specifying with particularity the act, event, or condition giving rise to such claim of suspension or excuse and specifying the date on which such act, event, or condition arose; and (ii) in the case of any governmental approval, Lessee shall have applied for such approval sufficiently in advance to reasonably obtain such approval prior to Lessee's obligation to perform under the covenants and conditions herein. The obligations of Lessee under this Lease shall not be suspended or excused pursuant to this Paragraph unless and until such written notice to Lessor is given and shall not be suspended or excused by any act, event, or condition as to which Lessor has not been so notified. Lessee shall diligently pursue the removal or lifting of such act, event, or condition in such manner as may be reasonably practicable throughout the course of its existence. Notwithstanding anything herein contained to the contrary, the obligations of Lessee hereunder shall not be suspended or excused by reason of failure to obtain any permit for the drilling of the initial well unless such permit shall have been applied for at least six (6) months prior to the expiration of primary term hereof, and such application shall have been diligently pursued. The failure to obtain any other governmental permit or entitlement shall not be deemed an event of force majeure unless Lessee shall have submitted a timely and complete application therefor and such application shall have been diligently pursued; in which event Lessee's obligations shall not be suspended hereunder for a period of longer than one (1) year from the date a completed application was filed.

13. **Default.** In addition to all other rights and remedies of Lessor under this Lease or the law, if Lessee shall be in default in the performance of any of Lessee's covenants under this Lease, and if for a period of fifteen (15) business days as to the payment of undisputed (not challenged in court by Lessee) royalties (or fifteen (15) days after

resolution of any dispute thereover), including minimum royalties or thirty (30) days as to other undisputed defaults (or thirty (30) days after resolution of any dispute thereover), after written notice by Lessor of such default except for Lessee's failure to give a notice under Paragraph 20, hereof (for which Lessee shall pay to Lessor $100.00 for each day or portion thereof such notice is not given), Lessee shall fail to commence and thereafter diligently and in good faith to prosecute the remedying of such default then, at the option of Lessor this Lease shall forthwith cease and terminate and all rights of Lessee in and to the Leased Land shall be at an end, save and except as to any wells theretofore drilled or being drilled and in respect to which Lessee is not in default and the applicable Well Tracts and appurtenances therefore. Upon termination of this Lease by default, Lessor, without notice or demand, may reenter the Leased Land or any part thereof, and expel, remove and put out Lessee or any person or persons occupying the Leased Land, and, if not removed by Lessee under the provisions of Paragraph 11 hereof, Lessor may (i) remove all property therefrom using such force as may be necessary to again repossess and enjoy the Leased Land as before this demise, and (ii) to restore and remediate the Leased Land or affected portion thereof to return it to as near as original condition as practical, without prejudice to any other remedies to which Lessor might be entitled and without liability to Lessee or any third party for damages sustained by reason of such removal, provided that no default in the performance of any of the conditions or provisions hereof as to any well or wells shall affect the right of Lessee to continue Lessee's possession and operation of any other well or wells (to depths and portions of the Leased Land earned) in regard to which Lessee is not in default, together with the Well Tract earned and the surface well site parcel for each such drilling or producing oil or gas well, and rights-of-way and easements necessary for Lessee's operation thereof. In the event that Lessor properly exercises the above right to expel Lessee, remove equipment, or restore and remediate the Leased Land or any portion thereof, Lessee shall protect, defend, indemnify and hold Lessor harmless from any cost, risk, expense or other liability associated with the exercise of such rights. In order for the written notice required herein for termination of this Lease to be effective, such notice shall be delivered by certified mail, set forth the specific allegations of the breach and contain in bold, conspicuous print that failure to take action will result in termination of the lease. The time periods set forth above shall be calculated from the date of receipt of such notice.

In addition, without limiting in any way Lessor's remedies upon default, any amount due under this Lease which is not paid when due, unless excused pursuant to Paragraph 12 hereof, shall bear interest at the highest lawful rate for debts of that kind and character from the date said amount became due until the date payment in full shall be received by Lessor.

14. **Assignment**. This Lease and each and all of its provisions shall be binding upon and shall inure to the benefit of the heirs, administrators, executors, successors and assigns of the respective parties hereto. Lessee shall not, however, sublet the demised premises or any part thereof, or assign, transfer, or otherwise convey this Lease or any of its rights hereunder or any of its interest in or to the demised premises, or enter into any partnership overriding royalty or participation agreement with respect to rights of Lessee hereunder, without the prior written consent of Lessor which may be granted, withheld or conditioned at Lessor's sole discretion up until the expiration of the Primary Term. Thereafter such consent shall not be unreasonably withheld by Lessor. Without limiting the generality of the foregoing, Lessor may withhold such consent if the proposed assignee or transferee does not demonstrate to the reasonable satisfaction of Lessor that it meets the Minimum Qualifications for Bidders which was attached as Exhibit "B" to the Resolution of Intention to Lease adopted by the City Counsel of the City of Whittier on August 26, 2008. In the event that Lessee shall sublet, assign, transfer, otherwise convey the Leased Land or its rights and interest hereunder, or any part thereof, or enter into any partnership, overriding royalty or participation agreement with respect to rights of Lessee hereunder, or attempt to do so, in violation of the foregoing provision and if after the primary term Lessee has not contested the reasonableness of Lessor's withholding of consent and thereafter established that the withholding of such consent was unreasonable, to assign by Lessor consent would be reasonable, then, in addition to any and all other rights and remedies available to it, Lessor may at its option, by written notice to Lessee within ninety (90) days after receiving actual knowledge of such event, declare such sublease, assignment, transfer, mortgage, conveyance, encumbrance or agreement void. Notwithstanding the foregoing, assignment of overriding royalty interest(s) in the leasehold in an amount not to exceed in the agregate10% of 8/8ths of production and lease shall be permitted under the terms hereof without the consent of Lessor. In the event that Lessee shall file a voluntary petition in bankruptcy or shall be adjudged a bankrupt in any involuntary bankruptcy proceeding, or in the event that any voluntary or involuntary proceeding for the reorganization of Lessee shall be instituted by anyone other than Lessor under any of the provisions of the bankruptcy laws of the United States, or in the event that (except in proceedings instituted by Lessor) a receiver or judicial trustee or custodian shall be appointed for, or any lien or any writ of attachment, garnishment, execution or distraint shall be

levied upon, any of Lessee's rights or interest under this Lease, or in the event that there shall be any assignment of any of Lessee's rights or interest under this Lease by operation of law, then, in addition to any and all other rights and remedies available to it, Lessor may at its option, by written notice to Lessee within ninety (90) days after receiving actual knowledge of such event, terminate this Lease and all rights and interest of Lessee and all other persons under this Lease. Lessee shall be entitled to enter into financing arrangements whereby its interest is conveyed into a partnership or other entity controlled by Lessee and otherwise entitled to encumber all but Lessor's royalty share of production, or the proceeds of sale thereof, from the Leased Land without the prior written consent of Lessor for the purpose of financing its operations on the Leased Land, but not otherwise without Lessor's prior written consent, which shall not be unreasonably withheld. Any consent of Lessor to any sublease, assignment, transfer, conveyance, encumbrance or agreement shall not be or be deemed or construed as a consent to any other, different or subsequent sublease, assignment, transfer, mortgage, conveyance, encumbrance or agreement, nor as a waiver or exhaustion of any of the provisions of this Paragraph. The provisions and agreements contained in this Paragraph with respect to Lessee shall be applicable to any and all subleases, assignees, transferees, mortgagees and other persons holding or claiming any of the rights or interest of Lessee under this Lease as well as to Lessee originally named herein. The term "Lessee" as used in this article includes any individual, partnership or corporation who is a lessee hereunder even though several individuals, partnerships or corporations are such and includes each partner of any partnership which is a lessee hereunder. Notwithstanding the foregoing, Lessee may assign all or part of its interests in the lease to an affiliate (defined as an entity owned or controlled by Lessee) thereof without the consent of Lessor.

15. Pooling and Unitization. Lessee shall have the right at its option, at any time, either before or after the discovery of oil, gas or other substances on the Leased Land to present to Lessor a specific proposal to combine and pool all or any part of the Leased Land or interest therein into one or more operating units with any other lands or interests therein (whether held by Lessee or others and whether or not the surface of such other land may be used for oil or gas development purposes). Lessor may, at its sole discretion, either consent in writing to the formation of such pool or operating unit, or withhold its consent, and no pool or operating unit may be formed without the prior specific written consent of Lessor. Each operating unit created hereunder with the consent of Lessor shall be created by and shall become effective upon the execution by Lessee and the recording in the office of the appropriate County Recorder of a Declaration of Pooling setting forth the exterior boundaries of the unit so created and describing the lands pooled thereunder, followed by the prompt mailing of a copy thereof to Lessor. If there are any lands or interests in lands within the exterior boundaries of any operating unit which are not pooled therein, Lessee may, with Lessor's prior written consent which may be withheld for any reason, at any time after creation of such unit, add any or all such additional lands or interest to such unit by executing a Supplemental Declaration of Pooling, but no retroactive adjustment of royalties shall be made. Promptly after execution of each Declaration of Pooling and each Supplemental Declaration of Pooling, Lessee shall give written notice thereof to Lessor. Any operating unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced, and within the meaning of the requirements of the Lease any such well or operations, if off the Leased Land, shall be considered as having been commenced immediately after the effective date of such pooling. Production, drilling or reworking operations anywhere on the operating unit created hereunder shall be treated as production, drilling or reworking operations on that portion of the Leased Land properly included in such operating unit. Any portion of the Leased Land included in an operating unit pursuant to this Lease shall thereafter during the term of such operating unit be deemed to be segregated from the balance of the Leased Land and any portion of the Leased Land not included within such unit shall be subject to further rental, development or release in accordance with the terms of this Lease, and Lessee shall not be entitled to hold any land not so included by virtue of drilling upon or production from land included in such unit. There shall be allocated to the Leased Land the proportion of the pooled production from any such operating unit (whether or not such production is from the Leased Land) that the number of surface acres covered by this Lease and included in such unit bears to the total number of surface acres in such unit; royalties shall be paid hereunder only upon that portion of such production so allocated, and as to pooled production from land in such unit such royalties shall be in lieu of any other royalties. Lessee may at any time quitclaim to the persons entitled thereto all or any part of the land in any such operating unit and no owner of land in such unit not owning any interest in quitclaimed land, except by virtue of such pooling, shall have any interest in such quitclaimed land after the quitclaim is delivered or recorded. Allocation of production as aforesaid from any such operating unit, whether to the Leased Land or in like manner to other lands therein, shall continue notwithstanding any quitclaim or other termination, either in whole or in part, of this or any other lease covering lands in such unit until such time as the owner of such land shall (or shall give others the right to) drill for or produce any of the pooled substances from any pooled part of such lands, whereupon all such lands formerly included in such unit and as to

which the Lease covering the same shall have been terminated, shall be excluded in determining the production to be allocated to the respective lands in such units and in prorating taxes; and in the event of the failure of Lessor's or any other owner's title as to any portion of the land included in any such operating unit; such portion of such land shall likewise be excluded from such unit; provided that Lessee shall not be held to account for any production allocated to any lands excluded from any such operating unit unless and until Lessee has actual knowledge of the aforesaid circumstances requiring such exclusion. Lessee may, at any time either before or after the commencement of the drilling of a well on lands included in any such operating unit but prior to the discovery thereon of the substance for which the unit was formed, or at any time after the abandonment of all wells drilled on such unit, wholly dissolve such unit by executing and recording in the office of the appropriate County Recorder a Declaration of Dissolution.

Promptly after execution of such Declaration of Dissolution Lessee shall give written notice thereof to Lessor. Upon the dissolution of any such operating unit, whether or not this Lease or any other Lease involved therein remains in effect, all rights of Lessor hereunder to royalty on pooled substances produced from the lands which were so pooled (other than the Leased Land) shall cease and terminate; but such dissolution shall not otherwise affect or impair any of Lessee's rights or obligations under this Lease, including its right upon obtaining the prior written consent of Lessor to create a new operating unit or units out of the lands previously pooled pursuant to this Paragraph, or constitute a surrender of any part of or any interest in the leasehold estate created hereby. The sale, conveyance or other transfer of, or of any interest in, any portion or portions of the Leased Land which are at the time of such transfer subject to an operating unit shall (unless the instrument effecting such transfer expressly provides otherwise) be deemed to include and shall operate as a transfer and assignment of all of the transferor's interest, rights and benefits under this Lease (including the right to royalty on allocated production from the lands subject to any such unit) insofar as such interest, rights and benefits pertain to or are allocated hereunder to the portion or portions of the Leased Land or interest therein so transferred. For the purpose of determining drilling obligations in such unit, which shall be equal to the drilling obligations set forth hereinabove in this Lease, the entire acreage so pooled shall be treated as if it were covered by one Lease and the drilling of a well in any part of such unit, whether or not on land covered by this Lease, shall fulfill Lessee's drilling obligations under the Lease to the same extent as if such well were drilled on land covered by this Lease and no offset obligations shall accrue with respect to the tracts of and included within any pooled unit as a result of wells drilled therein.

16. **Seismic Activities.** Lessor hereby grants to Lessee or to Lessee's nominee, for Lessee's benefit, subject to Lessee obtaining a Conditional Use Permit therefore as provided in Paragraph 6.1, above, permission to conduct seismic or geophysical surveys on said land by any method, whether now known or not, provided that Lessee, or Lessee's nominee shall pay the party or parties entitled thereto for any and all damages to person or property, including damage to water wells located on said land, resulting from the making of such surveys. Notwithstanding anything herein to the contrary, nothing contained in this Lease is intended to grant to Lessee the exclusive right to conduct seismic and other geophysical operations across the Leased Land from and after the point in time at which portions (by depth or otherwise) of the Leased Land are released or surrendered to Lessor, such that such operations may be conducted by others to evaluate the released or surrendered portions of the Leased Land. In the event Lessee shall conduct seismic or other geophysical surveys over the Leased Land, Lessor shall be entitled to receive a copy thereof including any such data in digital form at such time as such data is available to Lessee.

Lessor expressly reserves the right to conduct seismic and other geophysical operations across the Leased Land on its own behalf and to grant such right to third parties from time to time and at any time. Any rights, data, fees and revenues attributable to the exercise by Lessor of such rights shall be the sole property of Lessor or its licensee, and Lessee shall not be entitled to see such data or share in such revenues or fees.

Additionally, Lessor, its affiliates, successors, assigns or agents, shall have the right to review and inspect during normal business hours upon ten (10) days written notice, all geophysical and seismic data obtained by Lessee under this Paragraph.

17. **Definitions.** The following terms or phrases, and variations thereof, except where the context requires a different meaning, shall have the following meanings in this Lease:

(a) The words "drilling operations" as used herein shall mean the location of a drilling rig on the Leased Land or lands pooled therewith and the spudding of a well both of which must have occurred before "drilling operations" will be deemed to have commenced.

(b) Lessee shall have met its minimum development program under Paragraph 4 and the Leased Land shall be deemed "fully drilled" when there has been drilled a sufficient number of oil and/or gas wells to earn Well Tracts, as hereinafter defined, to encompass all of the Leased Land.

(c) The term "suitable offset location" as used in Paragraph 5 of this Lease shall mean a location within a distance from the boundary line separating the properties equal to the distance from the well to be offset to said boundary line (though the offset well need not in any event be closer than 200 feet from said boundary line) and within one-half (1/2) of such distance from a line drawn at right angles to such boundary line from the well to be offset through such boundary line and extended through the Leased Land.

(d) A "Well Tract" as used herein shall mean the following:

i. In the case of an oil well producing from a depth of 4,000 feet or less - forty (40) acres;

ii. In the case of an oil well producing from a depth of 4,001 feet to 8,000 feet - eighty (80) acres;

iii. In the case of an oil well producing from 8,001 feet or deeper – one hundred twenty (120) acres;

iv. In the case of a gas well producing from a depth of 8,000 feet or less - one hundred sixty (160) acres;

v. In the case of a gas well producing from 8,001 feet to 12,000 feet - three hundred twenty (320) acres;

vi. In the case of a gas well producing from below 12,000 feet - six hundred forty (640) acres;

vii. In the case of a horizontal well – 240 acres in compact shape evenly spaced on either side of the horizontal or near horizontal portion thereof open to production.

viii. In the case of substantially deviated well – the greater of eighty (80) acres, or the acreage earned by the depth of the producing interval thereof, or if such well is of the type described in subparagraph ix., below, the acreage therein provided for.

ix. In the case of a well drilled into multiple, separate, accumulations of oil or gas which are reasonably determined to be capable of production in paying quantities, 660' on either side and 330' on either end of that portion of the well bore from the first such accumulation encountered to the last such accumulation encountered and open to production.

x. In the case of a well which meets the criteria of subparagraph ix, above, and is also a horizontal well, the greater of the acreage provided under subparagraph vii or ix, above.

(e) The term "oil well" is any well

i. which produces crude petroleum oil not associated with gas at the time of production, or

ii. which produces one barrel or more of crude petroleum oil to each 2,000 cubic feet of natural gas, or

iii. which produces crude petroleum oil from a formation or producing horizon productive of oil only, encountered in a well bore through which gas also is produced through the inside of another string of casing.

(f) The term "gas well" is any well

i. which produces natural gas not associated with or blended with crude petroleum oil at the time of production, or

ii. which produces more than 2,000 cubic feet of natural gas to each barrel of crude petroleum oil from the same producing horizon, or

iii. which produces natural gas only encountered in well bore through which crude petroleum oil also is produced through the inside of another string of casing.

(g) For purposes hereof, a horizontal well shall mean a well drilled, completed or recompleted in a manner in which the horizontal or near horizontal component of the completion interval in the geological formation exceeds the vertical or near vertical component thereof and exceeds 300 feet in such formation.

(h) For purposes hereof a substantially deviated well shall mean a well for which the producing interval is located at least One Thousand Three Hundred Twenty (1,320) feet distant, horizontally, from the surface drillsite thereof.

(i) The term "paying quantities" as used herein, shall mean production in quantities sufficient to yield a return in excess of operating costs.

(j) The term "Injection Well" as used herein shall mean a well used to inject water or gas for the purposes of maintaining reservoir pressure or waterflooding a formation in connection with secondary recovery operations.

(k) The term "Disposal Well" as used herein shall mean a well used to inject produced water from the Leased Lands for purposes of disposing of such water.

(l) The term "market price" as used herein if oil is not sold or is sold to an affiliate of Lessor, shall mean the highest posted price available in the vicinity of the Leased Land for oil of like quality as that produced hereunder.

18. **Waiver.** The waiver by Lessor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition for any subsequent breach of the same or any other term, covenant or condition herein contained. The subsequent acceptance by Lessor of any sum due under this Lease shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this Lease, other than the failure of Lessee to pay the particular sum accepted.

19. **Authority to Execute.** If Lessee is a corporation, each individual executing this Lease on behalf of said corporation represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of said corporation in accordance with a duly adopted resolution of the Board of Directors of said corporation or in accordance with the bylaws of said corporation, and that this Lease is binding upon said corporation in accordance with its terms.

Upon request, Lessee shall supply a copy of an adopted resolution or the bylaws which empower the party executing this to act on behalf of the corporation.

20. **Notice Periods.** In addition to the notice requirements set forth elsewhere in this Lease, Lessee shall give Lessor oral notice by telephone or in person, followed by prompt written confirmation, at the telephone number and address set forth in Paragraph 4 above, as follows:

(a) Notice at least seventy-two (72) hours prior to entry on the Leased Land with a drilling rig;

(b) Notice at least seventy-two (72) hours prior to spudding any well drilled on the Leased Land or on land pooled therewith;

(c) Notice within seventy-two (72) hours of the release of a drilling rig from any well on the Leased Land or any land pooled therewith;

(d) Notice within seventy-two (72) hours of completion of any well drilled on the Leased Land or on land pooled therewith;

(e) Notice at least seventy-two (72) hours prior to abandonment of any well drilled on the Leased Land or on land pooled therewith;

(f) Notice at least seventy-two (72) hours prior to conducting any geological, geophysical or seismic activities on the Leased Land or pursuant to this Lease;

(g) Notice within seventy-two (72) hours of the first sale of any substance from a well drilled on the Leased Land or on land pooled therewith;

(h) Notice of cessation of production accompanied by a description of the reasons therefor, within fifteen (15) consecutive days following any such cessation;

(i) Notice within ten (10) days of the completion of any well with a producing interval within 1320 feet of an exterior boundary of the Leased Land in which Lessee has any economic interest upon adjacent lands that are not pooled with the Leased Land and in which Lessor is not a mineral Owner, which notice shall include a description of such well, its producing zone(s) and surface drill site and bottom hole location.

21. **Attorneys' Fees and Court Costs.** The substantially prevailing party in any action regarding this Lease shall be entitled to its reasonable attorneys' fees and court costs (which shall include the cost of staff time or expert witnesses) including, but not limited to, appeals, if any.

22. **Hazardous Waste.** (a) Lessee acknowledges that Lessor shall not be deemed to have made (and Lessor hereby disclaims) any representation or warranty, express or implied, as to the condition of the Leased Land or any improvements located thereon.

(b) If Lessee uses, generates, manufactures, produces, stores, releases, discharges, or disposes of on, under or about the Leased Land or transports to or from the Leased Land any hazardous substance or allows any other person or entity to do so, it will do so in strict accordance with applicable requirements of state, federal, or local laws, regulations, ordinances, rules or guidelines. Such requirements include, but are not limited to, containment systems and administrative controls.

(c) Lessee shall give written notice to Lessor within twenty-four (24) hours of:

i. any spill or release that is required to be reported to the California Governor's Office of Emergency Services ("OES") and/or the Environmental Protection Agency ("EPA");

ii. any proceeding or inquiry by any governmental or regulatory authority with respect to the presence of any hazardous substance on the Leased Land or the migration thereof from or to other property;

iii. all claims made or threatened by any third-party against the Leased Land relating to any loss or injury resulting from any hazardous substance; and

iv. Lessee's discovery of any occurrence or condition on any real property adjoining or in the vicinity of the Leased Land that could cause the Leased Land or any part thereof to be subject to any restrictions on ownership, occupancy, transferability or use under any environmental law.

(d) Lessor shall have the right to join and participate in, as a party if it so elects, any legal proceedings or actions initiated in connection with any environmental law or regulations.

(e) Lessee hereby agrees to protect, defend, indemnify and hold harmless Lessor, its directors, officers, employees, agents, successors and assigns, against and from any and all costs, claims, loss or liability, including third-party claims and, regardless of legal theory, arising directly or indirectly out of or attributable to any soil or ground water contamination on, under or adjacent to the Leased Land or the storage, release, threatened release or

disposal of wastes of any kind on the Leased Land (the "Contamination"), including without limitation costs of clean-up, civil penalties assessed for any such contamination, disposal or other remedial or preventative action. This indemnity and hold harmless agreement shall apply to any contamination caused by Lessee, its affiliates, successors, assigns, employees, agents, consultants, contractors or subcontractors and shall survive the termination or expiration of this lease; provided, however, this indemnity shall not pertain to any such Contamination in any way associated with the activities of Lessor, its agents or contractors related in any way to the landfill operated on the Leased Lands.

(f) In the event that any investigation, site monitoring, containment, cleanup, removal, restoration or other remedial work of any kind or nature (the "Remedial Work") is reasonably necessary under any applicable local, state or federal law or regulation, any judicial order, or by any governmental or non-governmental entity or person because of Lessee's operations, or in connection with Lessee's operations, the current or future presence, suspected presence, release or suspected release of a hazardous substance into the air, soil, groundwater, surface water or soil vapor at, on, about, under or within the Leased Land (or any portion thereof), Lessee shall within the time provided by applicable law, regulation, order or agreement and if none then within thirty (30) days after written demand for performance thereof by Lessor, commence to perform, or cause to be commenced, and thereafter diligently prosecuted to completion, all such Remedial Work. All Remedial Work shall be performed by one or more contractors, approved in advance in writing by Lessor and under the supervision of a qualified consultant approved in advance in writing by Lessor. All costs and expenses of such Remedial Work shall be paid by Lessee including, without limitation, the charges of such contractor(s) and/or the qualified consultant, and Lessor's reasonable attorney's fees and costs incurred in connection with monitoring or review of such Remedial Work. In the event Lessee shall fail to timely commence, or cause to be commenced, or fail to diligently prosecute to completion, such Remedial Work, Lessor may, but shall not be required to, cause such Remedial Work to be performed and all costs and expenses thereof, or incurred in connection therewith, shall become part of Lessee's obligations under this Lease. Nothing herein contained shall be construed to impose obligation upon Lessee pertaining to the operation of the landfill located on the Leased Premises by or on behalf of Lessor.

(g) Lessor is authorized by itself, its agents, employees or workmen to enter at any reasonable time with at least 24 hour notice to Lessee upon any part of the Leased Land for the purposes of inspecting the same for hazardous substances and Lessee's compliance with this Paragraph and such inspections may include, without limitation, subsurface soil or water sampling and/or analysis. Any such testing shall be conducted at Lessor's sole risks and expense and Lessee shall not be responsible for any costs in connection with the foregoing. Any such testing shall not occur more frequently than once every five years.

(h) Nothing in this Paragraph 22 shall limit any rights of Lessor or obligations of Lessee under this Lease, but shall be in addition to all such rights and obligations.

23. **Keeping and Inspection of Records.**

23.1. **Well Data.** Lessee shall provide Lessor's attorney, without charge, all geologic and well information set forth in Exhibit "B" attached hereto and made a part hereof for any wells drilled upon the Leased Land or lands pooled therewith and all data and information (geological and otherwise) obtained by Lessee in the course of its drilling, development and producing operations on the Leased Land or lands pooled therewith having to do with the mechanical histories of wells, the thickness, character and content of the formations penetrated and the amount and kind of production obtained, including but not limited to, the following: all logs, electric logs, electric surveys, directional surveys, well histories, core records, daily or weekly drilling reports, well completion reports, notices and reports to the Division of Oil, Gas and Geothermal Resources or other public authority and all replies, responses or comments thereon by said Division or authority, detailed fossil assemblage in each well bore, oriented cores, dipmeter and directional survey data, records of core analyses and of results obtained in all formation tests, potential tests, water witch runs and pressure determinations, and all other factual data or information in any way relating to subsurface conditions, and also all production records relating to the quantity or nature of the production obtained from wells on the demised premises or lands pooled therewith and, upon request, analyses in the possession of Lessee of the hydrocarbons produced. Such production records shall be furnished to Lessor at least as often as once each month. Lessee shall keep Lessor promptly and fully advised in writing as to the extent, nature and progress of all work on the demised premises or lands pooled therewith. The foregoing requirements of this section shall not be construed to require Lessee to develop any data or information but only to require Lessee to make available whatever

data or information may come into its possession, except that Lessee shall run at least one (1) electric log to as near total depth as is practicable in each well drilled by Lessee on the Leased Land or lands pooled therewith.

Lessor agrees to assert confidential status for all such information not otherwise in the public domain under the California Public Records Act and as attorney-client privileged information for a period of three (3) years from the date of receipt thereof. Upon request, Lessee shall advise Lessor fully as to the progress of all work upon the Leased Land. Nothing in this provision shall be construed as authorization to receive interpretative data.

23.2. **Copies of Lessee's Contracts.** Within thirty (30) days after entering into any contract or agreement for the treatment, processing, extraction, transportation, sale or delivery of any hydrocarbons produced from the Leased Land or lands pooled therewith (excepting contracts for the refining of oil), or any amendment, modification, extension or renewal of any such contract or agreement, Lessee shall deliver a copy of it to Lessor. Notwithstanding the foregoing, sales of production for periods not exceeding one (1) year shall be provided only upon written request of Lessor.

23.3. **Records and Accounts.** Lessee shall keep true, full and correct books of account, showing its account of the production of oil, gas and other hydrocarbon substances from the Leased Land or lands pooled or unitized therewith, and shall maintain such records for the term of this Lease and for three years thereafter. Such books, together with all other records of Lessee relating to the performance by Lessee of the covenants hereof, shall be open for audit, copying and inspection by Lessor or its agent at all reasonable times throughout such period. Lessee shall furnish Lessor monthly written statements of the total production from the Leased Land or lands pooled or unitized therewith and the deliveries of oil, gas or other hydrocarbons therefrom during the preceding calendar month and the royalties payable in respect thereto and the data upon which the amount of such royalties is computed, and also copies of the run tickets covering such deliveries.

23.4. **Records of Division of Oil, Gas and Geothermal Resources**. Lessee hereby authorizes Lessor its representatives or agents, to examine and take copies of all records of the Division of Oil, Gas and Geothermal Resources of the State of California (including all officers, deputies and agents thereof) and all records of any other public authorities relating to any wells drilled upon the Leased Land or lands pooled therewith, including, but not limited to, all reports, records, notices and statements filed by Lessee. Lessor agrees to keep all such records, contracts and logs confidential if, to the extent, and during the period that they are on confidential status with the Division of Oil, Gas and Geothermal Resources. Except as to the foregoing confidentiality, Lessee hereby waives all restrictions now or hereafter imposed by statute or otherwise upon the use of such records by the Lessor as evidence in any litigation by or against Lessee.

23.5. **Statement to Lessor**. The receipt by Lessor of any statement, or any payment of royalty for any period, shall not bind Lessor or Lessee as to the correctness of the statement or payment. Lessor shall also be entitled, from time to time, to one or more independent audits of the records by a certified public accountant designated by Lessor for the purpose of determining compliance with this Lease. Such audit shall be conducted during usual business hours at Lessee's place of business within the State of California. If the audit shows that there is a deficiency in the payment of royalty, the deficient shall be immediately due and payable. The costs of the audit shall be paid by Lessor unless the final adjudicated or agreed audit shows that Lessee understated proper royalty payments to Lessor by more than ten percent (10%), in which event Lessee shall pay all costs of the audit.

23.6. **Inspection by Lessor.** Lessor, at its sole cost, risk and expense, shall have the right, without hindrance, (a) to enter upon the Leased Land and to examine the work done and in progress thereon and to take samples of production, (b) to inspect Lessee's works, tanks and appliances, and (c) to examine, gauge and meter any or all of the hydrocarbons produced from the Leased Land or lands pooled therewith. Lessor agrees to make a reasonable attempt to contact Lessee prior to entry onto Leased Land or lands pooled therewith for the purposes set forth above. Lessor shall indemnify Lessee from and against any claims, damages, awards arising by virtue of its exercise of the rights granted in this paragraph or paragraph 22 (g).

24. **Lessor Option to Take Produced Water.** Lessor shall have the option at any time and from time to time to elect by written notice to Lessee to take any quantity of produced water from wells operated by Lessee on the Leased Land at no charge to Lessor, but into storage facilities and/or pipeline to be provided by Lessor and not

required or useful by Lessee for its operations on the Leased Land or lands pooled therewith for Lessor's use or treatment and use.

25. **Lessor's Option to Purchase.** Lessor shall have the option, exercisable within the first one hundred eighty days of the twenty-fourth (24th) year of this Lease if it is then still in effect, exercisable by written notice from Lessor to Lessee, to purchase all of Lessee's right, title and interest in this Lease and in all wells thereon and operating equipment and pipelines associated therewith at the fair market value thereof.

26. **Savings Provision.** It is the intent of the Lessor that this lease is executed in accordance with its authority as a Charter Rule City and that the secondary term as stated herein is in the best interest of the City, provided, however, in the event that the term of this lease, if any beyond the Primary Term, violates any law existing on the date of this lease or the City's Charter as it exists on the date of this lease with respect to the term of the lease, then this lease shall be automatically amended to provide that the secondary term shall in no event extend beyond the maximum term allowed by law.

27. **Amendment.** This Lease may be amended without further bidding; but only by mutual written agreement of the parties hereto.

28. **Counterpart Execution.** This Lease may be executed in multiple counterparts, all of which, taken together, shall constitute one single Lease.

LESSEE:

By:_____
Signature (title)

_____
Printed Name

LESSOR:

CITY OF WHITTIER

By:_____
Stephen W. Helvey, City Manager

APPROVED AS TO FORM:

By:_____
City Attorney

Date:_____

Exhibit "B" Attached to and a part of that certain Oil, Gas, and Mineral Lease dated _____, 2008, by and between the CITY OF WHITTIER, as Lessor, and _____, as Lessee.

Well Information

IN DRILLING WELL(S) LESSEE SHALL:

(i) Test as a prudent operator any formation that either before or after logging as hereinafter provided appears favorable to Lessor for the production of oil and/or gas.

(ii) Conduct all operations with approved and accepted practices prevailing in the area where the well is drilled for wells of similar depth and testing similar formations.

(iii) Make adequate evaluation and tests to Lessor's satisfaction to determine if the well is capable of producing oil and/or gas from any formation encountered. This evaluation shall include, but not be limited to, a Dual Induction and/or Lateral Log, a BHC Sonic Log and a Compensated Neutron-Density Log over all zones of interest.

(iv) Afford Lessor, at its sole risk and expense, access to the derrick floor and full and free access to the well and the records thereof at any and all times.

(v) Give Lessor notice, pursuant to the notice provisions of this Lease, to have a representative present before any testing, coring or logging of a prospective oil or gas zone, or plugging and abandoning the well.

(vi) Advise Lessor, in writing, before commencing operations, of the name and address of the geologist and/or engineer servicing the well.

(vii) Furnish Lessor's attorney, without cost, the following reports, data and information in PDF or Microsoft Office compatible format, with the exception of electric logs which shall be provided as a hard copy:

DURING THE DRILLING OF THE WELL

(a) One (1) copy of any core analyses prepared by or for Lessee..

(b) Water samples, on request.

(c) One (1) copy of all correspondence, forms and reports filed with State and/or Federal agencies and one (1) copy of all correspondence, reports, permits or other documents issued to Lessee by State and/or Federal agencies.

UPON COMPLETION OF THE WELL

(d) One (1) copy of the chronological log and history of the well (well records and information record), not later than thirty (30) days after completion of well.
(e) One (1) final print of all logging surveys undertaken.
(f) A certified copy or photoprint of the plugging record required by the governmental office or body having jurisdiction over the premises, if the test well is a dry hole.
(g) One (1) copy of any core analysis and three (3)-copies of any core report.
(h) One (1) copy of any bottom hole survey pressure taken.
(i) One (1) copy of any directional survey, if run.
(j) One (1) copy of drillstem test charts and analysis, if taken.
(k) One (1) copy of gas-oil ratio test, if taken.
(l) One (1) copy of open flow potential and shut-in test, if gas well.
(m) One (1) copy of any electrical log analysis.
(n) One (1) copy of geologic report, if performed, with properly annotated drilling time charts.
(o) One (1) copy of all correspondence, or other documents issued to Lessee by State and/or Federal agencies previously provided during the drilling of the well and all correspondence forms and reports filed with State and/or Federal agencies, not previously provided to Lessor's attorney during the drilling of the well.

Prior to the commencement of operations and after completion of any well as a well capable of producing oil or gas, all notices shall be delivered as provided in Section 20 of this Lease.

OIL EXPLORATION AT THE FORMER CHEVRON PROPERTY
LIST OF POTENTIAL MITIGATION MEASURES

The following list of mitigation measures are meant to address project-specific impacts of the proposed oil extraction project. The mitigation measures partially consider potential impacts to sensitive species and habitats, but also consider impacts (including habitat fragmentation) to open space including the Core Habitat Management Zone, as designated in the Puente Hills Landfill Native Habitat Preservation Authority's (Habitat Authority) 2007 Resource Management Plan (RMP), and the overall biological integrity of the Puente/Whittier Hills. These measures take into account State and Federal regulations, including the California Environmental Quality Act (CEQA). However, in many cases these measures may go beyond traditional regulatory and CEQA expectations in order to minimize and more than adequately offset impacts to biological resources (both sensitive and otherwise). Mitigation measures are identified for all actual and potential impacts, and not just those that would be considered "potentially significant" pursuant to CEQA. The broader goal should be to ensure that the long-term intent of the Resource Management Plan (RMP) is realized.

To the extent that the proposed extraction project will fragment the landscape and result in direct and indirect impacts to native habitats and associated species, the Habitat Authority is dedicated to having mitigation measures implemented that will substantially increase the amount of native habitats within the property. The purpose of some mitigation measures is to substantially enhance existing avoided areas within the Preserve, in order to more than offset impacts associated with the proposed project.

Examples of mitigation measures (discussed in more detail below) intended to offset fragmentation and loss of habitat values include (but are not limited to) the substantial enhancement of existing native vegetation through restoration, and ongoing mitigation funding for operational oversight, exotic eradication/habitat enhancement, property acquisition or other activities at the discretion of the Habitat Authority . Further measures to address indirect impacts to wildlife adjacent to proposed facilities (e.g., noise, lighting, toxics, runoff, etc.) are suggested to preserve core habitat values to the maximum extend possible.

Habitat Mitigation/Restoration

- **Permanent Impacts** – The project proponent shall mitigate for all permanent impacts to native vegetation (including coastal sage scrub, riparian, and native grassland) by restoring degraded areas elsewhere at the property (or within the Habitat Authority managed lands) at a minimum 3:1 ratio. Mitigation areas will be identified by the Habitat Authority. If mitigation needs to occur outside the leased area for oil operations then standard access fees applied by the Habitat Authority will apply (see Habitat Authority website for details.)
- **Temporary Impacts** – The project proponent shall restore all temporarily impacted areas. For temporary impacts to native vegetation, temporary impact areas shall be restored to the same type of native vegetation. For non-native vegetation, temporary impacts areas shall be restored to appropriate native vegetation. When oil operations

have ceased at the property, facilities will be removed and restored to appropriate native habitats.

- **Ongoing Exotic Eradication/Habitat Enhancement** – The project proponent shall implement an exotic eradication/habitat enhancement program within designated priority areas within the oil field. This may include, but not be limited to the removal of eucalyptus trees, pepper trees, castor bean, tree tobacco, hemlock, fennel, thistle, and non-native grasses. The eradication program will be reviewed and approved by the Habitat Authority.
- **Impacts to Jurisdictional Waters** – For any impacts to jurisdictional waters, the project proponent will obtain all necessary regulatory permits prior to the issuance of a grading permit, including if necessary a Section 404 permit, Section 401 Water Quality Certification, and a Section 1602 Streambed Alteration Agreement. Impacts to jurisdictional waters (and any associated riparian vegetation and/or wetlands) will be mitigated for at a minimum 3:1 ratio, or as required by the regulatory agencies (whichever is higher). If mitigation needs to occur outside the leased area for oil operations then standard access fees applied by the Habitat Authority will apply (see Habitat Authority website for details.)

Seasonal Measures

- **Nesting birds**
  - All vegetation clearing, test drilling, or other major activities related to the construction of facilities or initial drilling shall be conducted outside of the nesting season (February 1 to August 31) to avoid impacts to nesting birds.
- **California gnatcatcher**
  - All activities proposed within, adjacent to, or in the vicinity of occupied habitat will be subject to consultation with the U.S. Fish and Wildlife Service (Service), pursuant to either Sections 7 or 10 of the Federal Endangered Species Act (ESA).
  - If California gnatcatchers are identified within coastal sage scrub in the vicinity of the proposed facilities, the project proponent shall hire a qualified biologist to monitor all construction activities adjacent to any occupied habitat during the breeding season. Measures such as this would be expected to be included in any incidental take authorization issued by the Service.

Wildlife Movement

- For access roads to be re-graded for the project or for existing roads with significant increased activity, the proponent shall install corrugated pipe culverts to facilitate the movement of smaller vertebrates, including rodents, reptiles, and amphibians; as directed and approved by the Habitat Authority Ecologist.
- For new access roads (refers to an alignment that historically did not exist before), a separate set of mitigation requirements to be determined at a later date will be applied to take into consideration site specific habitat disturbance, fragmentation or isolation (i.e.: Constructing a new road to connect proposed oil drilling sites E to A).

Fuel Modification

- All fuel modification will be contained within the project footprint. Impacts to native habitats as a result of fuel modification (including thinning) will be treated as a permanent impact subject to mitigation requirements.
- All plantings within fuel modification zones will consist of non-invasive species, with priority given to native species.
- Access roads will be cleared of vegetation on a regular basis for purposes of fuel modification in accordance with fire department requirements at the expense of the oil operator.

Indirect Impacts

- **Noise**
  - During construction, including drilling, activities adjacent to sensitive habitats, including potential nesting gnatcatchers, raptors, etc., will be monitored using permanently installed noise meters. If actual levels (measured from the edge of the leased area) exceed allowable levels (e.g. 60 db or to be determined), construction activities may be temporarily halted until additional measures can be implemented to further reduce noise levels. Noise restrictions may also be imposed by regulatory agencies (e.g., Service, CDFG, etc.) as part of any regulatory permits and/or take authorizations.
  - Noise levels attributed to operations will be minimized to the maximum extent feasible. Facilities shall be constructed to eliminate noise impacts on surrounding habitats, or at least minimize noise projected into adjacent open space. A standard for noise shall be set to regulate noise projected from the edge of the leased area (e.g., 60 db hourly average or to be determined).
  - To avoid impacts to nesting birds and other wildlife, no new drilling or construction shall be allowed during the breeding season (February 1 through August 31). If the area involves impacting raptors as determined by a survey of the adjacent area, activity will be restricted starting January 15.
  - Vehicle traffic shall be restricted to defined access routes, and using approved equipment for specific areas.
  - With the exception of delivering construction and other equipment, access to construction/drilling sites will be using approved vehicles only. It is recommended that the project proponent use hybrid (electric or other low noise) vehicles for all non-construction equipment access.
- **Light**
  - The use of lighting will be minimized to the maximum extent feasible.
  - Night lighting will not be used, except for emergency lighting and motion-sensor activated lighting to deter unauthorized access at night. All necessary lighting will be directed away from natural areas and will be shielded in order to direct lighting down towards project facilities. Lighting will be used only to illuminate specific areas for access and operations.
  - Emergency lighting will be used for the minimum time needed, and under defined circumstances.
- **Toxics**

- All pollutants generated by the project shall be contained on site, and shall not be allowed into enter adjacent streams. All runoff from the facilities shall be collected and treated (see below).

- **Drainage/Runoff**
  - All runoff generated by the project shall be treated prior to discharge into a stream. The project shall utilize a treatment train (in-line system of multiple treatments) for the treatment of all runoff; which may include bioswales, catch basins and filters, etc.
  - The project shall utilize measures during and after construction to reduce erosion, including the use of sandbags.
- **Invasives**
  - Fuel modification areas will use non-native invasive plant species. Native species will be used to the maximum extent feasible.
- **Unauthorized Access**
  - Unauthorized access into the Preserve will not be allowed. Personnel must remain inside the leased areas and identified roadways at all times.

Miscellaneous Mitigation Measures

- Determine other biological mitigation measures as appropriate after analysis of surveys and/or CEQA process. (e.g., Mitigation measures for impacts to bats to be determined once oil sites are located.)
- Determine other non-biological mitigation measures as appropriate after analysis of proposed sites and/or CEQA process. (e.g., Viewshed impacts or impacts to recreational use)
- Ongoing mitigation funds will be made available to the managing agency (i.e., the Habitat Authority) for operational oversight (i.e. staff/ranger time to manage leased area), exotic eradication/habitat enhancement program (mentioned earlier), land acquisition, and/or other activities at the discretion of the Habitat Authority.
- Conservation easement placed over remaining City-owned land. Oil leased area will be defined and separate from conservation easement.

Other Considerations

- Speed limits will be imposed strictly on all construction-related equipment, and all other vehicles in support of operations.
- Any unauthorized activities within the jurisdiction of the regulatory agencies (e.g.: CDFG, ACOE, and RWQCB), such as fill placed within a stream and/or the removal of riparian vegetation, will first be reported to the Habitat Authority. Any filings made with these agencies will be reviewed by the Habitat Authority (and approved by the City if required).
- All operations shall occur within the defined lease area. All temporary staging areas, including the placement of construction trailers, shall be reviewed with the Habitat Authority to minimize biological impacts. Temporary use areas outside the leased area require a permit through the Habitat Authority (and approved by the City if required).

- All vehicles on the property shall carry two-way radios, fire extinguishers, and other emergency equipment.
- There will be no access for oil operators after sunset, unless during temporary new drilling operations, for emergency or safety purposes.
- In addition to clearance for annual fuel modification, roads will be maintained for safe and functional use at all times.
- If damaged due to natural events such as earthquakes or floods, any leased area shall be repaired to previous or comparable conditions.
- Leased areas shall remain in safe conditions at all times including conducting any necessary site adjacent work with the review and approval of the City and Habitat Authority to stabilize the leased areas at the expense of the oil operator (i.e. Pay for all costs associated with stabilizing an adjacent slope outside the leased area to guarantee safe site conditions or to reduce potential property damages.)
- Any physical change to the property after initial operations are in place within or outside the leased area needs to be reviewed and approved by the Habitat Authority.
- Quarterly written, emailed, or verbal reports to the City and Habitat Authority will be required.
- All liter and debris should be promptly removed.

EXHIBIT G

LEASE AGREEMENT

WHITTIER MAIN 2008 MINERAL EXTRACTION
OIL, GAS AND MINERAL LEASE

THIS OIL, GAS AND MINERAL LEASE (hereinafter "Lease") is, made and entered into this 28th day of October, 2008, by and between the **CITY OF WHITTIER**, a charter municipality of the State of California with a mailing address at 13230 Penn Street, Whittier, CA 90602 (hereinafter called "Lessor"), and Matrix Oil Corporation, a California corporation (as to an undivided 25%), with a mailing address at 104 Anapamu, Santa Barbara, CA 93101 and Clayton Williams Energy, Inc., a Delaware corporation (as to an undivided 75%), with a mailing address at 6 Desta Drive, Suite 6500, Midland, TX 79705 (hereinafter called "Lessee").

WITNESSETH: Lessor, for and in consideration of the rental paid upon execution hereof, receipt of which is hereby acknowledged, and Lessee's covenants and agreements hereinafter contained, does hereby lease, let and demise unto Lessee the land hereinafter described (hereinafter called the "Leased Land"), subject to the covenants, conditions and limitations hereinafter set forth, for the purposes and with the exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land, similar to the above-mentioned substances except for water (but not excepting water which may be produced in association with leased substances which may be used by Lessee in its operations on the Leased Land, but not sold) and geothermal resources (hereinafter collectively called "substances") and producing, extracting, taking, treating, storing of oil, removing and disposing of such substances from the Leased Land together with the right to construct, erect, maintain, operate, use, repair, replace and remove pipelines, telephone, telegraph and power lines, tanks, machinery, appliances, buildings, and other structures, useful, necessary or proper for carrying on its operation on the Leased Land, and rights-of-way for passage over, upon and across and ingress and egress to and from the leased land, or neighboring lands pooled therewith for any or all of the above-mentioned purposes. Lessor shall have the right to occupy and use the leased land in any manner and to any extent not inconsistent with Lessee's rights or in interference with Lessee's operations hereunder. The land hereby leased is situated in the County of Los Angeles, State of California, and described in Exhibit "A", attached hereto and incorporated herein by this reference, and containing 1,280 acres, more or less.

The parties hereby agree as follows:

1. Term. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

2. Rental, Management Fee and Habitat Enhancement Fee.

2.1 **Rental**. Lessee has paid to Lessor rental in full hereunder for the first twelve months of the term hereof. If Lessee has not commenced drilling operations on the leased land or terminated this lease within that time, Lessee, commencing with the earlier to occur of (i) the expiration thereof or (ii) Lessee's entry on the leased land to commence operations pursuant to any Conditional Use Permit which may be issued therefore by the City of Whittier shall pay or tender to Lessor in advance, as rental for the remaining two (2) years of the primary term hereof, the sum of One Hundred Forty Dollars ($140.00) per acre for so much of the said land as may then still be held under this lease at the time of payment which payment or tender shall operate as rental and as consideration for deferring the commencement of drilling operations for a period of two (2) years from the expiration of that period for which and advance rental has been paid. The commencement of drilling operations may then be deferred for up to but not beyond the balance of the paid up primary term hereof.

2.2 **Management Fee and Habitat Enhancement Fee**. Lessee shall pay the following management fee and habitat enhancement fee to the Puente Hills Landfill Native Habitat Preservation Authority:

(a) Management Fee. The sum of Five Thousand Dollars ($5,000.00) per month commencing on the date of acceptance in writing by Lessee of a Conditional Use Permit issued by the City of Whittier in accordance with the provisions of Paragraph 6.1, hereof, which management fee shall be increased to Seven Thousand Dollars ($7,000.00) per month commencing on the commencement of drilling operations (as defined in Paragraph 17.(a), hereof), and continuing annually thereafter on or before each anniversary of such date.

(b) Habitat Enhancement Fee. The sum of One Hundred Thousand Dollars ($100,000.00) per year commencing on the date of commencement of drilling operations (as defined in Paragraph 17.(a), hereof) on the Leased Land pursuant to an issued and accepted Conditional Use Permit and continuing annually thereafter on or before each next ensuing anniversary of the date of Lessee's acceptance of such Conditional Use Permit.

(c) CPI Adjustment of Management Fee and Habitat Enhancement Fee. The foregoing management and habitat enhancement fees shall be increased annually in a percentage equal to the percentage increase, if any, in the U.S. Department of Labor Consumer Price Index, All Goods-All Consumers, for the Los Angeles Metropolitan Area (or a reasonably equivalent replacement index to be selected by Lessor if such index is no longer published) commencing on the second anniversary of the date on which both such fees were paid.

(d) Credit for Portion of Incremental Royalty. If and to the extent that Lessee pays a portion of an incremental increase in royalty hereunder to the Puente Hills Landfill Native Habitat Preservation Authority pursuant to Paragraph 7.7, hereof, such incremental royalty amount paid each year to the Puente Hills Landfill Native Habitat Preservation Authority shall be a credit against the next ensuing management fee and habitat enhancement fee.

3. Payments and Notice.

3.1. **Payments**. The payments required to be paid by Lessee hereunder shall be made by check made payable to, and mailed to:

To the City of Whittier:

City of Whittier
ATTN: David Pelser
13230 Penn Street
Whittier, CA 90602

To the Puente Hills Landfill Native Habitat Preservation Authority:

Puente Hills Landfill Native Habitat Preservation Authority
ATTN: Andrea Gullo, Executive Director
7702 Walnut Street, Suite C
Whittier, CA 90602

3.2. **Notice**. Any notice to be given by either party to the other hereunder may be delivered in person or by registered or certified mail, postage prepaid, addressed to the party for whom intended as follows:

To Lessor at:

City of Whittier
ATTN: David Pelser
13230 Penn Street
Whittier, CA 90602

To Lessee at:

Matrix Oil Corporation
ATTN: Michael D. McCaskey,
Vice President
104 Anapamu
Santa Barbara, CA 93101

And to:

Clayton Williams Energy, Inc.
ATTN: T. Mark Tisdale,
Vice President and General Counsel
6 Desta Drive, Suite 6500
Midland, TX 79705

Either party may from time to time, by written notice to the other, designate a different address which shall be substituted for the one above specified. If any notice from one party to the other is given by registered or certified mail, service of notice will be considered made on the date of mailing if properly addressed and postage is fully prepaid.

4. Drilling Schedule.

4.1. **Drilling Within Primary Term.** Subject to the terms of Paragraph 2 above and Paragraph 6.1, below, Lessee shall, on or before the expiration of the Primary Term, commence and diligently prosecute the drilling of at least three wells to a depth adequate to test the Miocene Puente Formation, (the "Initial Test Wells") failing in which this Lease shall terminate, save and except for the Well Tract for such well theretofore drilled and completed as a well capable of producing in paying quantities, together with continuing nonexclusive rights to utilize the drill or well site and routes of ingress and egress and pipeline purposes therefor. Thereafter, Lessee shall engage in continuous drilling operations as provided in Paragraph 4.2, below.

4.2. **Continuous Operations**. If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at any one time, the continuous development obligation shall not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production.

Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled.

5. Offset Wells.

5.1. **Offset Distances**. If, after the date of this lease, a well is drilled and completed as a well capable of producing in paying quantities on adjoining property in which Lessor has no interest and the producing interval location thereof is at that time ascertainable and within 1320 feet of the exterior limits of any land embraced in this lease, or, if the producing interval location of such well is not ascertainable at that time, but the surface location thereof is within 1320 feet of the exterior limits of any land at the time embraced in this Lease, and gas (unassociated with oil) but not oil, is capable of being produced therefrom in paying quantities, or within 660 feet and oil is capable of being produced therefrom in paying quantities, unless a well offsetting the same has been completed or is being

drilled by Lessee on the Leased Land, Lessee, subject to its right to quitclaim as herein provided, within forty-five (45) days after it is ascertained that the production of oil or gas from the well to be offset is occurring in paying quantities shall commence drilling operations at a suitable offset location, as hereinafter defined, to offset such well and drill and complete the same diligently to protect the Leased Land from drainage.

5.2. **Zonal Offset**. Lessee shall offset such outside well by drilling to the same producing formation or zone as the well to be offset, and no well existing or being drilled on the Leased Land shall satisfy this offset requirement unless drilled to the same producing formation or zone from which oil or gas is being produced by the well to be offset, and at a suitable offset location as hereinafter defined. The requirements of Paragraph 4 shall not relieve Lessee of this obligation to offset any producing well in a different strata or zone from that in which production is obtained on the Leased Land. For the purpose of satisfying obligations hereunder, an offset well or wells shall be considered as other wells required to be drilled hereunder.

5.3. **Additional Offset**. Notwithstanding anything in this Lease to the contrary, the offset requirements contained in Paragraph 5 shall constitute a minimum offset requirement only. Lessee shall drill and produce competitively offset wells at such times, to such depths, and at such locations upon the Leased Land as may be necessary to protect all zones remaining subject to this Lease from drainage by wells on other lands.

5.4 **Optional Compensatory Royalty in the Event of Lessee's Offset Default**. In addition to any other remedies available to Lessor under this Lease or under California law, should Lessee fail to quitclaim or drill and produce an offset well within the time provided in this Paragraph 5 or in the manner provided in this Paragraph 5, at Lessor's election to be exercised by written notice from Lessor to Lessee, Lessee shall be obligated to pay to Lessor a compensatory royalty in the royalty share provided in Paragraph 7.1 hereof, at the highest price being paid in the vicinity for substances being produced in the well to be offset, upon one-half of the production volume of the well to be offset until such time as Lessee has complied with the provisions of Paragraph 5 of this Lease. Provided, however, nothing contained in this Article 5 shall require the drilling of a well, or payment of compensatory royalties, to offset a well in which Lessee holds no interest whose reasonably anticipated production will not pay the actual costs of drilling, completing and producing of such well.

6. Operations.

6.1. **No Surface Entry Unless and Until Conditional Use Permit Obtained and CEQA Complied With**. Lessee shall not be entitled to make any surface entry on the Leased Land (other than for visual inspection or surveying purposes in support of an application for a Conditional Use Permit) unless and until: (i) a Conditional Use Permit has been applied for at the City of Whittier for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes and, if desired by Lessee, for the conduct of a seismic survey, (ii) environmental review under the California Environmental Quality Act ("CEQA") has been conducted and paid for by Lessee, (iii) a Conditional Use Permit has been issued by the City of Whittier, in its sole and absolute discretion; and accepted in writing by Lessee within a period of ten (10) days of the date of its issuance, and (iv) no Conditional Use Permit will be issued by the City of Whittier until Lessor has obtained a release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. The terms and conditions of any Conditional Use Permit which may be issued by the City of Whittier, including any mitigation measures and monitoring plans which may arise in the cause of any CEQA review thereunder, shall be deemed incorporated into this Lease as terms and conditions thereof.

6.2. **Lessee to Use Good Oil Field Practice**. Except as herein otherwise provided, Lessee shall drill and operate each well in accordance with good oil field practice, and in material compliance with any conservation or curtailment programs imposed by law or governmental agency with jurisdiction over operations on the Leased Lands. Lessee shall comply in all material respects with all state, federal and local laws and with the rules, regulations and orders of any federal, state or other governmental agency having jurisdiction in the Leased Land with respect to the spacing, drilling or producing of wells, or other operations for oil or gas, and if there be any conflict between the same and provisions of this lease, such laws, rules, regulations and orders shall modify or supersede, as the case may be, the relevant provisions of this lease.

6.3 **Protection of Leased Land From Liens/Indemnification**. Lessee shall at its own risk and expense provide and promptly pay for all labor, equipment and supervision of whatever kind or nature that may be needed to carry on the operations hereunder and to perform the requirements of this Lease, and nothing herein contained shall obligate Lessor to reimburse Lessee for any costs incurred by it hereunder or to return to or repay to Lessee at any time any sums paid to Lessor pursuant to the provisions of this Lease. Lessee agrees to pay all damages, losses and expenses incurred by Lessor and to defend, indemnify and to hold Lessor and the Leased Land free and harmless of and from all damages, losses, expenses (including attorneys' fees in any action arising out of matters herein set forth), liens, liability to or claims of others (including, but not limited to, surface owners, if other than Lessor, surface tenants and other oil and gas lessees) or injury to the Leased Land which result from or, in anyway arise out of or in connection with (a) any of the operations of Lessee on said lands, (b) the exercise by Lessee of any of its rights hereunder, (c) the doing of any labor or the furnishing of any materials or supplies to or for Lessee, (d) any act or failure to act on the part of Lessee or of any contractor engaged in doing work for Lessee, (e) any breach by any contractor engaged in doing work for Lessee, (f) any breach by Lessee or its contractors of any of the provisions of this Lease, or (g) the Lessee's release or threatened release of pollutants, contaminates, hazardous substances, gas or petroleum on, under, about or from the Leased Land. This obligation to defend and indemnify shall not be subject to, reduced or barred by any theory of consent, assumption of the risk, contributory or comparative negligence, not amounting to gross negligence on the part of Lessor or its agents, employees, contractors, or invitees (but not including any commercial lessees of Lessor hereunder), or any other risk or loss shifting theory at law or in equity. This obligation to defend and indemnify and hold harmless shall survive any termination or expiration of the lease or assignment of the Lease by Lessee, without limitation, and shall not be limited in any manner by the insurance requested in Paragraph 10., hereof.

6.4. **Enhanced Recovery Operations**. Lessee shall not engage or participate in any steam injection or or tertiary recovery operation upon or affecting the Leased Land without first submitting a detailed plan of

the proposed operation to Lessor and obtaining Lessor's written consent thereto, which consent may be granted, withheld or conditioned at Lessor's sole discretion. With respect to any secondary recovery operations such as waterflood or pressure maintenance operations, Lessee shall submit a detailed plan of the proposed operation to Lessor and obtain Lessor's written consent thereto, which consent shall not be unreasonably withheld; provided, however, that if it is determined that a Conditional Use Permit is required for such flood, pressure maintenance or other enhanced recovery operation, such Conditional Use Permit must be applied for and obtained and Lessor's discretion as to the issuance of such Conditional Use Permit shall not be limited in such manner.

6.5 **Plugging and Abandonment and Site Restoration Fund or Bond**. The cost of plugging and abandoning any well drilled by Lessee and the cost of abandoning a well site which may be permitted by issuance of a Conditional Use Permit, together with the cost of site restoration and revegetation and habitat restoration shall be established to the reasonable satisfaction of the City of Whittier through the Conditional Use Permit issuance process, and, if a Conditional Use Permit is issued, Lessee shall establish out of Lessee's share of production of leased substances, without impact on Lessor's royalty share, a segregated sinking fund to cover the costs thereof, or in lieu thereof a bond reasonably acceptable to the City of Whittier, in accordance with the terms and conditions of any such issued Conditional Use Permit.

6.6 **Request for Additional Sites**. In the event that Lessee has drilled six wells on the Leased Lands, then Lessee shall have the right to request from Lessor one or more additional drillsites, subject to Lessee applying for and obtaining a Conditional Use Permit therefor and obtaining a release of any such additional sites from protected area status from the Los Angeles County Proposition A District. Lessor may in its sole discretion and for any reason deny or grant Lessee the right to construct any such additional site.

7. Royalty.

7.1. **Royalty Share**. The term "royalty share" as used herein means:

Thirty percent (30%) on the first $1,500,000.00 in market price (if leased substances are produced but not sold) or gross proceeds of sale of leased substances produced in any calendar month, plus an additional One and One-Quarter percent of One Hundred percent (1.25% of 100%) on each incremental $250,000.00 in market price (if leased substances are produced but not sold) or gross proceeds of sale of leased substances produced in any calendar month; provided, however, that the highest total royalty to be paid shall not exceed Fifty percent (50%).

7.2. **Royalty on Oil**. Lessee shall pay Lessor as royalty on oil the market price of said royalty share of all oil produced or lost from the Leased Land after making customary adjustment or deductions for temperature, water and sediment. In computing royalties all gravities shall be taken on the basis of oil containing not in excess of three percent (3%) water and other basic sediment. If Lessee sells said oil to an unaffiliated third party, market price shall be deemed and said royalty shall be paid on the basis of the gross proceeds thereof.

7.3. **Royalty on Gas**. Lessee shall pay to Lessor the royalty share of the gross proceeds received from the sale of any gas (excluding residual dry gas from extraction of casinghead gasoline), while the same is being sold off said land, or from any payment pursuant to a gas contract for gas not actually taken, but nothing herein contained shall require Lessee to save or market gas from said land unless there shall be surplus above fuel requirements and a market at the well for the same. Where the Lessee utilizes gas off the Leased Land, or where, due to Lessee's operations, gas shall be lost from the said lands in volumes that would have been marketable had such volumes been captured, the royalty share shall be based upon the market price of such gas at the wellhead.

If casinghead gasoline is extracted from the Leased Land or lands pooled or unitized therewith by Lessee from the natural gas produced from wells on said lands, then Lessee shall pay to Lessor as royalty 50% of Lessor's royalty share of the market price of the gasoline and 50% of the market price of other hydrocarbons (including residual dry gas) credited to this lease from the gas so treated.

7.4. **Royalty on Other Substances**. Lessee shall pay Lessor as royalty the market price on the Leased Land, in the condition as produced, of the royalty share of any substance covered by this Lease, other than oil and/or gas and the products thereof, which Lessee may elect to produce and save or market or utilize from the Leased Land.

7.5. **Royalty to be Free of Certain Costs**. Notwithstanding anything herein to the contrary, all royalties herein shall be computed without any deduction or charge on account of any tax, cost or expense of exploration, development, extraction or production, cleaning, dehydration, treatment, processing, extraction, compression, transportation or delivery, or any other deduction or charge whatsoever, whether of the same or a different character but shall bear its proportionate part of any ad valorem real property tax or possessory interest tax which may be levied against the mineral rights leased to Lessee hereunder.

7.6. **Payment of Royalties**. Within one hundred twenty (120) days following the first sale of oil and/or gas from the lands described herein or lands pooled therewith, but in no event more than two hundred forty (240) days after the date of first production or loss of marketable quantities of any such substances from said lands, Lessee shall pay, or cause to be paid, to Lessor such sums as shall have accrued to Lessor as royalties under this lease and thereafter such payments shall be made monthly, on or before the last day of the month following the month of production thereto for oil and on or before the last day of the second month following production for gas, without the necessity of the execution by Lessor, or any other party, of a division or transfer order. Notwithstanding anything herein to the contrary, in the event such amounts accruing to Lessor as royalty total less than one hundred dollars ($100.00) such amounts may be remitted the earlier of annually or when such amounts shall exceed one hundred dollars ($100.00). All sums not paid timely shall bear interest at the highest lawful rate from the date they are due until the date payment is received by Lessor. Lessee shall reimburse Lessor for all reasonable attorneys' fees, court costs, filing fees, and other costs or expenses incurred in connection with any legal action or other collection effort initiated by Lessor due to Lessee's failure to pay royalties hereunder in a timely manner in which

Lessor is found to be entitled to recover any royalties and/or interest. In the event of a conflict between the terms and conditions of any division or transfer order as Lessor may execute and this Lease, the latter shall prevail and shall not be amended thereby. Lessee shall furnish Lessor monthly statements showing the computation of royalties.

7.7 **Payment of a Portion of Incremental Increased Royalties to the Puente Hills Landfill Native Habitat Preservation Authority**. If and to the extent that an incremental increased royalty becomes payable to Lessor hereunder, Lessor may direct Lessee by written notice to Lessee, to pay a portion thereof directly to the Puente Hills Landfill Native habitat Preservation Authority.

7.8. **Minimum Royalty**. To the extent contemplated in the following sentence, upon completion of a well or wells on the Leased Land capable of producing gas or oil in paying quantities, Lessee shall pay Lessor a minimum royalty hereunder of an amount equal to, and not less than, fifty dollars ($50.00) (minimum royalty) per acre annually for the total acreage held subject to this lease irrespective of the operation or suspension of operations of any such well or wells, or the curtailment of production therefrom. If at the expiration of any full calendar year following the Primary Term hereof, Lessor shall not have received royalties above an amount equal to the minimum royalty per acre as aforesaid, Lessee shall on or before the twenty-fifth (25th) day of January next succeeding pay to Lessor an amount equal to the difference between said royalties paid during the preceding calendar year and such minimum royalty per acre.

The minimum royalty payments provided for herein shall be deemed the equivalent of production and shall constitute performance under this Lease if Lessee shall make a diligent effort to obtain commencement of production from any gas and/or oil well completed on the Leased Land; provided, however, that Lessee shall not be privileged, in any event, to hold this Lease by actual production plus adjustment to minimum royalty, or by payment of minimum royalty alone, for more than three (3) years, cumulatively.

8. Ownership.

8.1. **No Warranty of Title.** This Lease is made without warranty of any kind as to title. Lessee accepts as satisfactory to itself the title of Lessor in the Leased Land and agrees that Lessor shall not be liable or responsible to Lessee in damages or otherwise by reason of any defects in or any liens or encumbrances on Lessor's title or any want of title in Lessor to the Leased Land, or any portion thereof, or to any hydrocarbons therein contained or found or produced thereon or taken therefrom. If any third party asserts any claim against Lessor on account of Lessee's extraction or removal of hydrocarbons from the Leased Land or other operations of Lessee thereon (including, without limiting the generality of the foregoing, any governmental or other action or proceeding for the abatement of a nuisance or the cleanup, removal or other protection against a hazardous waste as now or hereafter defined), Lessee will defend and indemnify and hold Lessor harmless from all such claims except such portion thereof as represents a claim to Lessor's royalty, provided that upon receiving notice thereof, Lessor shall notify Lessee with reasonable promptness of the bringing of any action or the assertion of any such claim and shall allow Lessee to have Lessee's attorneys appear therein, either alone or in association with Lessor's attorneys (as Lessor may elect), in defending any such action on behalf of Lessor, each party paying the expenses of its own attorneys. Lessee shall promptly notify Lessor in writing of any judicial proceeding brought to the attention of Lessee, and affecting or purporting to affect, Lessee's possession or rights hereunder.

8.2. **Proportionate Reduction**. If Lessor owns a lesser interest in the oil, gas and other hydrocarbons in the Leased Land than the entire undivided fee simple estate therein, then any royalties, rentals and other payments herein provided for shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee; provided, however, that Lessor shall have no obligation to reimburse Lessee, retroactively, for any payments already made by Lessee to Lessor.

9. Taxes.

9.1. **Payment by Lessee.** Lessee shall at its own expense and without any reimbursement by Lessor pay and discharge before delinquency (a) all taxes, assessments and other governmental charges which, during the term of this Lease, shall be levied upon or assessed or charged against (1) the improvements and personal property constructed or placed upon the Leased Land by or for Lessee under this Lease; and (2) the Leased Land or any part thereof or any minerals or mineral rights or other rights therein; (b) all other taxes, assessments and other governmental charges upon or referable to any operations or acts of Lessee or on its behalf on the Leased Land; (c) all other assessments, charges and obligations of any kind whatever that by reason of any operation of Lessee may be or might become a lien upon or charge against the Leased Land, or any part thereof, or any well thereon, and that are created by or shall arise under or by reason of any present or future law, ordinance, regulation or order whatever; and (d) all taxes, assessments and governmental charges levied by or arising under any present or future law, ordinance, or regulation upon or with respect to this Lease, the execution or delivery hereof, or the leasing of the Leased Land hereunder.

Lessee shall, and hereby agrees that after hydrocarbons are discovered in paying quantities hereunder it will pay, to Lessor promptly upon demand, as supplemental royalty hereunder, an amount equal to each such tax, assessment and other governmental charge so paid by Lessor (including the portion thereof for the unexpired part of the fiscal year in which the discovery is made, prorated as of the completion date of the discovery well), except any portion of any such charge which is referable to personal property or major improvements of Lessor or to minerals not then subject to this Lease and being produced by Lessor or any third party.

9.2. **Tax Liens**. If any tax lien for taxes of the nature referenced in paragraph 9.1., above, is filed against the Leased Land and is not removed or released within thirty (30) days of the date the tax lien is recorded in the Official Records of the relevant County, this Lease, without notice or demand by Lessor, shall automatically terminate in its entirety.

10. Insurance. Lessee shall maintain in full force and effect, at its own expense, a policy or policies of worker's compensation insurance as required by the State of California, a policy or policy of Employer's Liability with limits of at least $1,000,000.00 per occurrence, a policy or policies of Automobile Liability covering all owned, non-owned

and hired vehicles, with limits of at least $5,000,000.00 per occurrence, and a policy or policies of commercial general liability insurance insuring Lessee and Lessor as an additional insured (and such other persons, firms or corporations as are designated by Lessor as having an interest in the Leased Land) against any liability for death, personal injury or property damage arising out of or resulting from Lessee's operations hereunder. Such general liability insurance shall have an initial combined single event coverage of not less than Five Million Dollars ($5,000,000.00).

Upon request Lessee will furnish Lessor valid certificates of insurance certifying the above coverage or evidence satisfactory to Lessor that Lessee is qualified to self-insure. In the event Lessor should determine that Lessee is qualified to self-insure, it is agreed between Lessee and Lessor that the intent of the provisions noted above concerning additional insured and waiver of subrogation shall apply to such self-insurance.

Lessee agrees that the insurance required by this Agreement shall not be materially changed, cancelled, or allowed to lapse for any reason, without thirty (30) days advance written notice to Lessor. As long as the respective insurers so permit, each insurance policy obtained shall provide that issuing insurance company waives all right of recovery by way of subrogation against Lessor. Lessee's failure to acquire and/or maintain the required insurance coverages with at least the specified limits, or failure to provide any requested certification thereof within thirty (30) days following receipt of a written request from Lessor, or any successor, shall be grounds to withhold or deny any assignment and/or terminate this Agreement as to all of the said lands not then assigned to Lessee at Lessor's election.

11. Surrender and Forfeiture.

11.1. **Removal of Equipment and Restoration.** Lessee shall have the right at any time to remove from the Leased Land any machinery, rigs, piping, casing and other property and improvements belonging to or furnished by Lessee, including that installed in wells or otherwise affixed to the land; provided that, if this Lease terminates in its entirety, such removal shall be completed within one hundred twenty (120) days thereafter and, in the event of the termination of this Lease as to a portion of the Leased Land, all such property not needed by Lessee for its operations on land retained under this Lease shall be removed from the land as to which this Lease is terminated within one hundred twenty (120) days after such partial termination and the remainder shall be removed within one hundred twenty (120) days after the termination of this Lease in its entirety. Lessee, after termination of this Lease, shall drain and fill all sump holes and other excavations made by it on the Leased Land and in all other respects restore the Leased Land as nearly to its condition existing on the date hereof as is reasonably practical and in accordance with the terms and conditions of any Conditional Use Permit issued therefore (including, without limitation, any revegetation and habitat restoration therein required), but Lessee shall not be obligated to restore anything for which it may theretofore have made payment acceptable to Lessor for damages. The obligation of Lessee to restore the Leased Land (set forth above) shall include the obligation to remediate any contamination arising from Lessee's exercise of any rights granted hereunder.

11.2. **Lessee's Right to Surrender.** Lessee, at its option, may at any time quitclaim and surrender all of the Leased Land, in which event this Lease shall terminate and Lessee shall be relieved of all obligations hereunder save and except the obligation to pay rents and royalties theretofore accrued and any obligation hereby imposed for removal of equipment and restoration or remediation of the Leased Land, and any tax or assessment which Lessee would be obligated otherwise to pay under Paragraph 9, hereof, prorated for any of the tax or assessment year for which Lessee held the Leased Land. Lessee, at its option, may at any time after drilling on the Leased Land or on land properly pooled with all or a portion of the Leased Land and from time to time thereafter, quitclaim and surrender any part of the Leased Land not desired by it (but only to all depths and strata in the surrendered acreage), and in such event the amount of any rental or minimum royalty provided for in this Lease shall thereafter accrue only on the basis of the land not so quitclaimed, and the number of wells to be drilled before the land may be deemed fully drilled shall be determined by the acreage retained. Land so quitclaimed, and any portion of the Leased Lands released pursuant to the partial termination provisions of this lease, shall remain subject to the easements and rights-of-way herein provided for so long as necessary to accommodate operations by Lessee on the retained part of the Leased Land or lands pooled therewith, including the right to dispose of produced water through Disposal Wells. Anything to the contrary herein notwithstanding, Lessee prior to drilling may make no partial release or quitclaim as provided under this Paragraph comprising less than forty (40) acres.

Lessee may at any time with respect to all of the Leased Land or, at any time or from time to time after drilling with respect to a designated part of the Leased Land subject to the acreage limitation provided herein, (a) surrender its right to produce oil, or (b) surrender its right to produce gas. A surrender of the right to produce oil shall include a surrender of the right to produce the gas that may be produced therewith. A surrender of the right to produce gas shall include a surrender of the right to produce associated liquids which may be produced therewith. A surrender of oil or gas rights in all the Leased Land will relieve Lessee of further obligation to drill wells for the released substance. A surrender of oil or gas rights in a part only of the Leased Land will reduce the number of required oil or gas wells to a number determined by the acreage as to which oil or gas rights are retained by Lessee. A surrender of oil rights shall have no effect on obligations to drill for the substance for which Lessee has retained its rights.

11.3. **Lessee's Obligation to Release Deep Rights.** One year following the later of the expiration of the primary term or the termination of the continuous development program, this lease shall terminate for all depths 100 feet and more below the stratagraphic equivalent of the deepest horizon from which a well drilled in the Leased Lands is then capable (without further drilling operations) of producing oil and/or gas, or either of them, in paying quantities.

11.4. **Lessee's Obligation to Surrender Undeveloped or Non-Producing Acreage.** One year following the later of the date on which the Leased Land is fully developed or Lessee has completed or abandoned its continuous development program under Paragraph 4, Lessee shall surrender and quitclaim to Lessor all of the Leased Land except as to Well Tracts surrounding (i) oil and gas wells then producing or capable of producing and on which reworking operations are timely performed and (ii) Injection Wells. Thereafter as to producing wells, if production ceases and there shall have been no production of hydrocarbons in paying quantities hereunder from a Well Tract retained by Lessee for a continuous period of one hundred eighty (180) days and in such time Lessee has not commenced and diligently prosecutes operations to convert such producing well into an Injection Well, this lease as to the subject Well Tract shall terminate and Lessee shall promptly surrender each such Well Tract to Lessor.

With respect to Well Tracts held by an Injection Well, such Well Tract shall terminate at such time as Lessee permanently abandons injection operations at such well.

11.5 **Joint Use of Drill and Well Sites, Production Support Site, Access and Pipeline and Utility Routes Upon Partial Surrender or Termination of Lease.** In the event of the partial surrender or termination of this Lease, Lessee agrees that its rights to use of such drill and well sites and access and pipeline and utility routes as may be permitted by issuance of one or more Conditional Use Permits issued by the City of Whittier shall be nonexclusive, and that such sites and routes will be available for use by any oil and gas lessee obtaining an oil and gas lease from the City of Whittier or its successor for the exploration for and development of oil, gas or other hydrocarbons in the lands so released from this Lease, provided that: (i) such joint use would not unreasonably interfere with the remaining operations of Lessee under this Lease; (ii) that any such subsequent oil and gas lessee applies for and obtains a Conditional Use Permit therefore from the City of Whittier; and (iii) that any such subsequent oil and gas lessee shall not be entitled to utilize any tanks, pipelines or other production, transportation, marketing, treatment or sales physical facilities installed by Lessee unless there is adequate surplus capacity to the needs of Lessee and any such subsequent oil and gas lessee pays to Lessee fair value for such joint use of physical facilities of Lessee, including value for a proportionate part of the abandonment obligations hereunder.

12. Force Majeure.

12.1. **Suspension of Obligations During Force Majeure.** Performance of covenants and conditions imposed upon Lessee hereunder shall be excused while, and to the extent that, Lessee is hindered in or prevented from complying therewith, in whole or in part, by war, riots, strikes, lockouts, natural disasters, accidents, inability (after a thirty (30) day attempt) to obtain materials or services in the open market or to obtain transportation therefor, laws, rules, and regulations of any federal, state, municipal or other governmental agency or any other cause beyond the control of the Lessee, whether similar or dissimilar to those herein specifically enumerated and without regard to whether such cause exists at the date hereof or hereafter arises; provided, however, that (i) Lessee shall provide written notice to Lessor of any claim of suspension or excuse of Lessee's obligations under this Paragraph, specifying with particularity the act, event, or condition giving rise to such claim of suspension or excuse and specifying the date on which such act, event, or condition arose; and (ii) in the case of any governmental approval, Lessee shall have applied for such approval sufficiently in advance to reasonably obtain such approval prior to Lessee's obligation to perform under the covenants and conditions herein. The obligations of Lessee under this Lease shall not be suspended or excused pursuant to this Paragraph unless and until such written notice to Lessor is given and shall not be suspended or excused by any act, event, or condition as to which Lessor has not been so notified. Lessee shall diligently pursue the removal or lifting of such act, event, or condition in such manner as may be reasonably practicable throughout the course of its existence. Notwithstanding anything herein contained to the contrary, the obligations of Lessee hereunder shall not be suspended or excused by reason of failure to obtain any permit for the drilling of the initial well unless such permit shall have been applied for at least six (6) months prior to the expiration of primary term hereof, and such application shall have been diligently pursued. The failure to obtain any other governmental permit or entitlement shall not be deemed an event of force majeure unless Lessee shall have submitted a timely and complete application therefor and such application shall have been diligently pursued; in which event Lessee's obligations shall not be suspended hereunder for a period of longer than one (1) year from the date a completed application was filed.

13. Default. In addition to all other rights and remedies of Lessor under this Lease or the law, if Lessee shall be in default in the performance of any of Lessee's covenants under this Lease, and if for a period of fifteen (15) business days as to the payment of undisputed (not challenged in court by Lessee) royalties (or fifteen (15) days after resolution of any dispute thereover), including minimum royalties or thirty (30) days as to other undisputed defaults (or thirty (30) days after resolution of any dispute thereover), after written notice by Lessor of such default except for Lessee's failure to give a notice under Paragraph 20, hereof (for which Lessee shall pay to Lessor $100.00 for each day or portion thereof such notice is not given), Lessee shall fail to commence and thereafter diligently and in good faith to prosecute the remedying of such default then, at the option of Lessor this Lease shall forthwith cease and terminate and all rights of Lessee in and to the Leased Land shall be at an end, save and except as to any wells theretofore drilled or being drilled and in respect to which Lessee is not in default and the applicable Well Tracts and appurtenances therefore. Upon termination of this Lease by default, Lessor, without notice or demand, may reenter the Leased Land or any part thereof, and expel, remove and put out Lessee or any person or persons occupying the Leased Land, and, if not removed by Lessee under the provisions of Paragraph 11 hereof, Lessor may (i) remove all property therefrom using such force as may be necessary to again repossess and enjoy the Leased Land as before this demise, and (ii) to restore and remediate the Leased Land or affected portion thereof to return it to as near as original condition as practical, without prejudice to any other remedies to which Lessor might be entitled and without liability to Lessee or any third party for damages sustained by reason of such removal, provided that no default in the performance of any of the conditions or provisions hereof as to any well or wells shall affect the right of Lessee to continue Lessee's possession and operation of any other well or wells (to depths and portions of the Leased Land earned) in regard to which Lessee is not in default, together with the Well Tract earned and the surface well site parcel for each such drilling or producing oil or gas well, and rights-of-way and easements necessary for Lessee's operation thereof. In the event that Lessor properly exercises the above right to expel Lessee, remove equipment, or restore and remediate the Leased Land or any portion thereof, Lessee shall protect, defend, indemnify and hold Lessor harmless from any cost, risk, expense or other liability associated with the exercise of such rights. In order for the written notice required herein for termination of this Lease to be effective, such notice shall be delivered by certified mail, set forth the specific allegations of the breach and contain in bold, conspicuous print that failure to take action will result in termination of the lease. The time periods set forth above shall be calculated from the date of receipt of such notice.

In addition, without limiting in any way Lessor's remedies upon default, any amount due under this Lease which is not paid when due, unless excused pursuant to Paragraph 12 hereof, shall bear interest at the highest lawful rate for debts of that kind and character from the date said amount became due until the date payment in full shall be received by Lessor.

14. Assignment. This Lease and each and all of its provisions shall be binding upon and shall inure to the benefit of the heirs, administrators, executors, successors and assigns of the respective parties hereto. Lessee shall not, however, sublet the demised premises or any part thereof, or assign, transfer, or otherwise convey this

Lease or any of its rights hereunder or any of its interest in or to the demised premises, or enter into any partnership overriding royalty or participation agreement with respect to rights of Lessee hereunder, without the prior written consent of Lessor which may be granted, withheld or conditioned at Lessor's sole discretion up until the expiration of the Primary Term. Thereafter such consent shall not be unreasonably withheld by Lessor. Without limiting the generality of the foregoing, Lessor may withhold such consent if the proposed assignee or transferee does not demonstrate to the reasonable satisfaction of Lessor that it meets the Minimum Qualifications for Bidders which was attached as Exhibit "B" to the Resolution of Intention to Lease adopted by the City Counsel of the City of Whittier on August 26, 2008. In the event that Lessee shall sublet, assign, transfer, otherwise convey the Leased Land or its rights and interest hereunder, or any part thereof, or enter into any partnership, overriding royalty or participation agreement with respect to rights of Lessee hereunder, or attempt to do so, in violation of the foregoing provision and if after the primary term Lessee has not contested the reasonableness of Lessor's withholding of consent and thereafter established that the withholding of such consent was unreasonable, to assign by Lessor consent would be reasonable, then, in addition to any and all other rights and remedies available to it, Lessor may at its option, by written notice to Lessee within ninety (90) days after receiving actual knowledge of such event, declare such sublease, assignment, transfer, mortgage, conveyance, encumbrance or agreement void. Notwithstanding the foregoing, assignment of overriding royalty interest(s) in the leasehold in an amount not to exceed in the agregate10% of 8/8ths of production and lease shall be permitted under the terms hereof without the consent of Lessor. In the event that Lessee shall file a voluntary petition in bankruptcy or shall be adjudged a bankrupt in any involuntary bankruptcy proceeding, or in the event that any voluntary or involuntary proceeding for the reorganization of Lessee shall be instituted by anyone other than Lessor under any of the provisions of the bankruptcy laws of the United States, or in the event that (except in proceedings instituted by Lessor) a receiver or judicial trustee or custodian shall be appointed for, or any lien or any writ of attachment, garnishment, execution or distraint shall be levied upon, any of Lessee's rights or interest under this Lease, or in the event that there shall be any assignment of any of Lessee's rights or interest under this Lease by operation of law, then, in addition to any and all other rights and remedies available to it, Lessor may at its option, by written notice to Lessee within ninety (90) days after receiving actual knowledge of such event, terminate this Lease and all rights and interest of Lessee and all other persons under this Lease. Lessee shall be entitled to enter into financing arrangements whereby its interest is conveyed into a partnership or other entity controlled by Lessee and otherwise entitled to encumber all but Lessor's royalty share of production, or the proceeds of sale thereof, from the Leased Land without the prior written consent of Lessor for the purpose of financing its operations on the Leased Land, but not otherwise without Lessor's prior written consent, which shall not be unreasonably withheld. Any consent of Lessor to any sublease, assignment, transfer, conveyance, encumbrance or agreement shall not be or be deemed or construed as a consent to any other, different or subsequent sublease, assignment, transfer, mortgage, conveyance, encumbrance or agreement, nor as a waiver or exhaustion of any of the provisions of this Paragraph. The provisions and agreements contained in this Paragraph with respect to Lessee shall be applicable to any and all subleases, assignees, transferees, mortgagees and other persons holding or claiming any of the rights or interest of Lessee under this Lease as well as to Lessee originally named herein. The term "Lessee" as used in this article includes any individual, partnership or corporation who is a lessee hereunder even though several individuals, partnerships or corporations are such and includes each partner of any partnership which is a lessee hereunder. Notwithstanding the foregoing, Lessee may assign all or part of its interests in the lease to an affiliate (defined as an entity owned or controlled by Lessee) thereof without the consent of Lessor.

15. **Pooling and Unitization.** Lessee shall have the right at its option, at any time, either before or after the discovery of oil, gas or other substances on the Leased Land to present to Lessor a specific proposal to combine and pool all or any part of the Leased Land or interest therein into one or more operating units with any other lands or interests therein (whether held by Lessee or others and whether or not the surface of such other land may be used for oil or gas development purposes). Lessor may, at its sole discretion, either consent in writing to the formation of such pool or operating unit, or withhold its consent, and no pool or operating unit may be formed without the prior specific written consent of Lessor. Each operating unit created hereunder with the consent of Lessor shall be created by and shall become effective upon the execution by Lessee and the recording in the office of the appropriate County Recorder of a Declaration of Pooling setting forth the exterior boundaries of the unit so created and describing the lands pooled thereunder, followed by the prompt mailing of a copy thereof to Lessor. If there are any lands or interests in lands within the exterior boundaries of any operating unit which are not pooled therein, Lessee may, with Lessor's prior written consent which may be withheld for any reason, at any time after creation of such unit, add any or all such additional lands or interest to such unit by executing a Supplemental Declaration of Pooling, but no retroactive adjustment of royalties shall be made. Promptly after execution of each Declaration of Pooling and each Supplemental Declaration of Pooling, Lessee shall give written notice thereof to Lessor. Any operating unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced, and within the meaning of the requirements of the Lease any such well or operations, if off the Leased Land, shall be considered as having been commenced immediately after the effective date of such pooling. Production, drilling or reworking operations anywhere on the operating unit created hereunder shall be treated as production, drilling or reworking operations on that portion of the Leased Land properly included in such operating unit. Any portion of the Leased Land included in an operating unit pursuant to this Lease shall thereafter during the term of such operating unit be deemed to be segregated from the balance of the Leased Land and any portion of the Leased Land not included within such unit shall be subject to further rental, development or release in accordance with the terms of this Lease, and Lessee shall not be entitled to hold any land not so included by virtue of drilling upon or production from land included in such unit. There shall be allocated to the Leased Land the proportion of the pooled production from any such operating unit (whether or not such production is from the Leased Land) that the number of surface acres covered by this Lease and included in such unit bears to the total number of surface acres in such unit; royalties shall be paid hereunder only upon that portion of such production so allocated, and as to pooled production from land in such unit such royalties shall be in lieu of any other royalties. Lessee may at any time quitclaim to the persons entitled thereto all or any part of the land in any such operating unit and no owner of land in such unit not owning any interest in quitclaimed land, except by virtue of such pooling, shall have any interest in such quitclaimed land after the quitclaim is delivered or recorded. Allocation of production as aforesaid from any such operating unit, whether to the Leased Land or in like manner to other lands therein, shall continue notwithstanding any quitclaim or other termination, either in whole or in part, of this or any other lease covering lands in such unit until such time as the owner of such land shall (or shall give others the right to) drill for or produce any of the pooled substances from any pooled part of such lands, whereupon all such lands formerly included in such unit and as to which the Lease covering the same shall have been terminated, shall be excluded in determining the production to be allocated to the respective lands in such units and in prorating taxes; and in the event of the failure of Lessor's or any

other owner's title as to any portion of the land included in any such operating unit; such portion of such land shall likewise be excluded from such unit; provided that Lessee shall not be held to account for any production allocated to any lands excluded from any such operating unit unless and until Lessee has actual knowledge of the aforesaid circumstances requiring such exclusion. Lessee may, at any time either before or after the commencement of the drilling of a well on lands included in any such operating unit but prior to the discovery thereon of the substance for which the unit was formed, or at any time after the abandonment of all wells drilled on such unit, wholly dissolve such unit by executing and recording in the office of the appropriate County Recorder a Declaration of Dissolution.

Promptly after execution of such Declaration of Dissolution Lessee shall give written notice thereof to Lessor. Upon the dissolution of any such operating unit, whether or not this Lease or any other Lease involved therein remains in effect, all rights of Lessor hereunder to royalty on pooled substances produced from the lands which were so pooled (other than the Leased Land) shall cease and terminate; but such dissolution shall not otherwise affect or impair any of Lessee's rights or obligations under this Lease, including its right upon obtaining the prior written consent of Lessor to create a new operating unit or units out of the lands previously pooled pursuant to this Paragraph, or constitute a surrender of any part of or any interest in the leasehold estate created hereby. The sale, conveyance or other transfer of, or of any interest in, any portion or portions of the Leased Land which are at the time of such transfer subject to an operating unit shall (unless the instrument effecting such transfer expressly provides otherwise) be deemed to include and shall operate as a transfer and assignment of all of the transferor's interest, rights and benefits under this Lease (including the right to royalty on allocated production from the lands subject to any such unit) insofar as such interest, rights and benefits pertain to or are allocated hereunder to the portion or portions of the Leased Land or interest therein so transferred. For the purpose of determining drilling obligations in such unit, which shall be equal to the drilling obligations set forth hereinabove in this Lease, the entire acreage so pooled shall be treated as if it were covered by one Lease and the drilling of a well in any part of such unit, whether or not on land covered by this Lease, shall fulfill Lessee's drilling obligations under the Lease to the same extent as if such well were drilled on land covered by this Lease and no offset obligations shall accrue with respect to the tracts of and included within any pooled unit as a result of wells drilled therein.

16. **Seismic Activities.** Lessor hereby grants to Lessee or to Lessee's nominee, for Lessee's benefit, subject to Lessee obtaining a Conditional Use Permit therefore as provided in Paragraph 6.1, above, permission to conduct seismic or geophysical surveys on said land by any method, whether now known or not, provided that Lessee, or Lessee's nominee shall pay the party or parties entitled thereto for any and all damages to person or property, including damage to water wells located on said land, resulting from the making of such surveys. Notwithstanding anything herein to the contrary, nothing contained in this Lease is intended to grant to Lessee the exclusive right to conduct seismic and other geophysical operations across the Leased Land from and after the point in time at which portions (by depth or otherwise) of the Leased Land are released or surrendered to Lessor, such that such operations may be conducted by others to evaluate the released or surrendered portions of the Leased Land. In the event Lessee shall conduct seismic or other geophysical surveys over the Leased Land, Lessor shall be entitled to receive a copy thereof including any such data in digital form at such time as such data is available to Lessee.

Lessor expressly reserves the right to conduct seismic and other geophysical operations across the Leased Land on its own behalf and to grant such right to third parties from time to time and at any time. Any rights, data, fees and revenues attributable to the exercise by Lessor of such rights shall be the sole property of Lessor or its licensee, and Lessee shall not be entitled to see such data or share in such revenues or fees.

Additionally, Lessor, its affiliates, successors, assigns or agents, shall have the right to review and inspect during normal business hours upon ten (10) days written notice, all geophysical and seismic data obtained by Lessee under this Paragraph.

17. **Definitions.** The following terms or phrases, and variations thereof, except where the context requires a different meaning, shall have the following meanings in this Lease:

(a) The words "drilling operations" as used herein shall mean the location of a drilling rig on the Leased Land or lands pooled therewith and the spudding of a well both of which must have occurred before "drilling operations" will be deemed to have commenced.

(b) Lessee shall have met its minimum development program under Paragraph 4 and the Leased Land shall be deemed "fully drilled" when there has been drilled a sufficient number of oil and/or gas wells to earn Well Tracts, as hereinafter defined, to encompass all of the Leased Land.

(c) The term "suitable offset location" as used in Paragraph 5 of this Lease shall mean a location within a distance from the boundary line separating the properties equal to the distance from the well to be offset to said boundary line (though the offset well need not in any event be closer than 200 feet from said boundary line) and within one-half (1/2) of such distance from a line drawn at right angles to such boundary line from the well to be offset through such boundary line and extended through the Leased Land.

(d) A "Well Tract" as used herein shall mean the following:

i. In the case of an oil well producing from a depth of 4,000 feet or less - forty (40) acres;

ii. In the case of an oil well producing from a depth of 4,001 feet to 8,000 feet - eighty (80) acres;

iii. In the case of an oil well producing from 8,001 feet or deeper – one hundred twenty (120) acres;

iv. In the case of a gas well producing from a depth of 8,000 feet or less - one hundred sixty (160) acres;

v. In the case of a gas well producing from 8,001 feet to 12,000 feet - three hundred twenty (320) acres;

vi. In the case of a gas well producing from below 12,000 feet - six hundred forty (640) acres;

vii. In the case of a horizontal well – 240 acres in compact shape evenly spaced on either side of the horizontal or near horizontal portion thereof open to production.

viii. In the case of substantially deviated well – the greater of eighty (80) acres, or the acreage earned by the depth of the producing interval thereof, or if such well is of the type described in subparagraph ix., below, the acreage therein provided for.

ix. In the case of a well drilled into multiple, separate, accumulations of oil or gas which are reasonably determined to be capable of production in paying quantities, 660' on either side and 330' on either end of that portion of the well bore from the first such accumulation encountered to the last such accumulation encountered and open to production.

x. In the case of a well which meets the criteria of subparagraph ix, above, and is also a horizontal well, the greater of the acreage provided under subparagraph vii or ix, above.

(e) The term "oil well" is any well

i. which produces crude petroleum oil not associated with gas at the time of production, or

ii. which produces one barrel or more of crude petroleum oil to each 2,000 cubic feet of natural gas, or

iii. which produces crude petroleum oil from a formation or producing horizon productive of oil only, encountered in a well bore through which gas also is produced through the inside of another string of casing.

(f) The term "gas well" is any well

i. which produces natural gas not associated with or blended with crude petroleum oil at the time of production, or

ii. which produces more than 2,000 cubic feet of natural gas to each barrel of crude petroleum oil from the same producing horizon, or

iii. which produces natural gas only encountered in well bore through which crude petroleum oil also is produced through the inside of another string of casing.

(g) For purposes hereof, a horizontal well shall mean a well drilled, completed or recompleted in a manner in which the horizontal or near horizontal component of the completion interval in the geological formation exceeds the vertical or near vertical component thereof and exceeds 300 feet in such formation.

(h) For purposes hereof a substantially deviated well shall mean a well for which the producing interval is located at least One Thousand Three Hundred Twenty (1,320) feet distant, horizontally, from the surface drillsite thereof.

(i) The term "paying quantities" as used herein, shall mean production in quantities sufficient to yield a return in excess of operating costs.

(j) The term "Injection Well" as used herein shall mean a well used to inject water or gas for the purposes of maintaining reservoir pressure or waterflooding a formation in connection with secondary recovery operations.

(k) The term "Disposal Well" as used herein shall mean a well used to inject produced water from the Leased Lands for purposes of disposing of such water.

(l) The term "market price" as used herein if oil is not sold or is sold to an affiliate of Lessor, shall mean the highest posted price available in the vicinity of the Leased Land for oil of like quality as that produced hereunder.

18. **Waiver.** The waiver by Lessor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition for any subsequent breach of the same or any other term, covenant or condition herein contained. The subsequent acceptance by Lessor of any sum due under this Lease shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this Lease, other than the failure of Lessee to pay the particular sum accepted.

19. **Authority to Execute.** If Lessee is a corporation, each individual executing this Lease on behalf of said corporation represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of said corporation in accordance with a duly adopted resolution of the Board of Directors of said corporation or in accordance with the bylaws of said corporation, and that this Lease is binding upon said corporation in accordance with its terms.

Upon request, Lessee shall supply a copy of an adopted resolution or the bylaws which empower the party executing this to act on behalf of the corporation.

20. **Notice Periods.** In addition to the notice requirements set forth elsewhere in this Lease, Lessee shall give Lessor oral notice by telephone or in person, followed by prompt written confirmation, at the telephone number and address set forth in Paragraph 4 above, as follows:

(a) Notice at least seventy-two (72) hours prior to entry on the Leased Land with a drilling rig;

(b) Notice at least seventy-two (72) hours prior to spudding any well drilled on the Leased Land or on land pooled therewith;

(c) Notice within seventy-two (72) hours of the release of a drilling rig from any well on the Leased Land or any land pooled therewith;

(d) Notice within seventy-two (72) hours of completion of any well drilled on the Leased Land or on land pooled therewith;

(e) Notice at least seventy-two (72) hours prior to abandonment of any well drilled on the Leased Land or on land pooled therewith;

(f) Notice at least seventy-two (72) hours prior to conducting any geological, geophysical or seismic activities on the Leased Land or pursuant to this Lease;

(g) Notice within seventy-two (72) hours of the first sale of any substance from a well drilled on the Leased Land or on land pooled therewith;

(h) Notice of cessation of production accompanied by a description of the reasons therefor, within fifteen (15) consecutive days following any such cessation;

(i) Notice within ten (10) days of the completion of any well with a producing interval within 1320 feet of an exterior boundary of the Leased Land in which Lessee has any economic interest upon adjacent lands that are not pooled with the Leased Land and in which Lessor is not a mineral Owner, which notice shall include a description of such well, its producing zone(s) and surface drill site and bottom hole location.

21. **Attorneys' Fees and Court Costs.** The substantially prevailing party in any action regarding this Lease shall be entitled to its reasonable attorneys' fees and court costs (which shall include the cost of staff time or expert witnesses) including, but not limited to, appeals, if any.

22. **Hazardous Waste.** (a) Lessee acknowledges that Lessor shall not be deemed to have made (and Lessor hereby disclaims) any representation or warranty, express or implied, as to the condition of the Leased Land or any improvements located thereon.

(b) If Lessee uses, generates, manufactures, produces, stores, releases, discharges, or disposes of on, under or about the Leased Land or transports to or from the Leased Land any hazardous substance or allows any other person or entity to do so, it will do so in strict accordance with applicable requirements of state, federal, or local laws, regulations, ordinances, rules or guidelines. Such requirements include, but are not limited to, containment systems and administrative controls.

(c) Lessee shall give written notice to Lessor within twenty-four (24) hours of:

i. any spill or release that is required to be reported to the California Governor's Office of Emergency Services ("OES") and/or the Environmental Protection Agency ("EPA");

ii. any proceeding or inquiry by any governmental or regulatory authority with respect to the presence of any hazardous substance on the Leased Land or the migration thereof from or to other property;

iii. all claims made or threatened by any third-party against the Leased Land relating to any loss or injury resulting from any hazardous substance; and

iv. Lessee's discovery of any occurrence or condition on any real property adjoining or in the vicinity of the Leased Land that could cause the Leased Land or any part thereof to be subject to any restrictions on ownership, occupancy, transferability or use under any environmental law.

(d) Lessor shall have the right to join and participate in, as a party if it so elects, any legal proceedings or actions initiated in connection with any environmental law or regulations.

(e) Lessee hereby agrees to protect, defend, indemnify and hold harmless Lessor, its directors, officers, employees, agents, successors and assigns, against and from any and all costs, claims, loss or liability, including third-party claims and, regardless of legal theory, arising directly or indirectly out of or attributable to any soil or ground water contamination on, under or adjacent to the Leased Land or the storage, release, threatened release or disposal of wastes of any kind on the Leased Land (the "Contamination"), including without limitation costs of clean-up, civil penalties assessed for any such contamination, disposal or other remedial or preventative action. This indemnity and hold harmless agreement shall apply to any contamination caused by Lessee, its affiliates, successors, assigns, employees, agents, consultants, contractors or subcontractors and shall survive the termination or expiration of this lease; provided, however, this indemnity shall not pertain to any such Contamination in any way associated with the activities of Lessor, its agents or contractors related in any way to the landfill operated on the Leased Lands.

(f) In the event that any investigation, site monitoring, containment, cleanup, removal, restoration or other remedial work of any kind or nature (the "Remedial Work") is reasonably necessary under any applicable local, state or federal law or regulation, any judicial order, or by any governmental or non-governmental entity or person because of Lessee's operations, or in connection with Lessee's operations, the current or future presence, suspected presence, release or suspected release of a hazardous substance into the air, soil, groundwater, surface water or soil vapor at, on, about, under or within the Leased Land (or any portion thereof), Lessee shall within the time provided by applicable law, regulation, order or agreement and if none then within thirty (30) days after written demand for performance thereof by Lessor, commence to perform, or cause to be commenced, and thereafter diligently prosecuted to completion, all such Remedial Work. All Remedial Work shall be performed by one or more contractors, approved in advance in writing by Lessor and under the supervision of a qualified consultant approved in advance in writing by Lessor. All costs and expenses of such Remedial Work shall be paid by Lessee including,

without limitation, the charges of such contractor(s) and/or the qualified consultant, and Lessor's reasonable attorney's fees and costs incurred in connection with monitoring or review of such Remedial Work. In the event Lessee shall fail to timely commence, or cause to be commenced, or fail to diligently prosecute to completion, such Remedial Work, Lessor may, but shall not be required to, cause such Remedial Work to be performed and all costs and expenses thereof, or incurred in connection therewith, shall become part of Lessee's obligations under this Lease. Nothing herein contained shall be construed to impose obligation upon Lessee pertaining to the operation of the landfill located on the Leased Premises by or on behalf of Lessor.

(g) Lessor is authorized by itself, its agents, employees or workmen to enter at any reasonable time with at least 24 hour notice to Lessee upon any part of the Leased Land for the purposes of inspecting the same for hazardous substances and Lessee's compliance with this Paragraph and such inspections may include, without limitation, subsurface soil or water sampling and/or analysis. Any such testing shall be conducted at Lessor's sole risks and expense and Lessee shall not be responsible for any costs in connection with the foregoing. Any such testing shall not occur more frequently than once every five years.

(h) Nothing in this Paragraph 22 shall limit any rights of Lessor or obligations of Lessee under this Lease, but shall be in addition to all such rights and obligations.

23. Keeping and Inspection of Records.

23.1. **Well Data.** Lessee shall provide Lessor's attorney, without charge, all geologic and well information set forth in Exhibit "B" attached hereto and made a part hereof for any wells drilled upon the Leased Land or lands pooled therewith and all data and information (geological and otherwise) obtained by Lessee in the course of its drilling, development and producing operations on the Leased Land or lands pooled therewith having to do with the mechanical histories of wells, the thickness, character and content of the formations penetrated and the amount and kind of production obtained, including but not limited to, the following: all logs, electric logs, electric surveys, directional surveys, well histories, core records, daily or weekly drilling reports, well completion reports, notices and reports to the Division of Oil, Gas and Geothermal Resources or other public authority and all replies, responses or comments thereon by said Division or authority, detailed fossil assemblage in each well bore, oriented cores, dipmeter and directional survey data, records of core analyses and of results obtained in all formation tests, potential tests, water witch runs and pressure determinations, and all other factual data or information in any way relating to subsurface conditions, and also all production records relating to the quantity or nature of the production obtained from wells on the demised premises or lands pooled therewith and, upon request, analyses in the possession of Lessee of the hydrocarbons produced. Such production records shall be furnished to Lessor at least as often as once each month. Lessee shall keep Lessor promptly and fully advised in writing as to the extent, nature and progress of all work on the demised premises or lands pooled therewith. The foregoing requirements of this section shall not be construed to require Lessee to develop any data or information but only to require Lessee to make available whatever data or information may come into its possession, except that Lessee shall run at least one (1) electric log to as near total depth as is practicable in each well drilled by Lessee on the Leased Land or lands pooled therewith.

Lessor agrees to assert confidential status for all such information not otherwise in the public domain under the California Public Records Act and as attorney-client privileged information for a period of three (3) years from the date of receipt thereof. Upon request, Lessee shall advise Lessor fully as to the progress of all work upon the Leased Land. Nothing in this provision shall be construed as authorization to receive interpretative data.

23.2. **Copies of Lessee's Contracts.** Within thirty (30) days after entering into any contract or agreement for the treatment, processing, extraction, transportation, sale or delivery of any hydrocarbons produced from the Leased Land or lands pooled therewith (excepting contracts for the refining of oil), or any amendment, modification, extension or renewal of any such contract or agreement, Lessee shall deliver a copy of it to Lessor. Notwithstanding the foregoing, sales of production for periods not exceeding one (1) year shall be provided only upon written request of Lessor.

23.3. **Records and Accounts.** Lessee shall keep true, full and correct books of account, showing its account of the production of oil, gas and other hydrocarbon substances from the Leased Land or lands pooled or unitized therewith, and shall maintain such records for the term of this Lease and for three years thereafter. Such books, together with all other records of Lessee relating to the performance by Lessee of the covenants hereof, shall be open for audit, copying and inspection by Lessor or its agent at all reasonable times throughout such period. Lessee shall furnish Lessor monthly written statements of the total production from the Leased Land or lands pooled or unitized therewith and the deliveries of oil, gas or other hydrocarbons therefrom during the preceding calendar month and the royalties payable in respect thereto and the data upon which the amount of such royalties is computed, and also copies of the run tickets covering such deliveries.

23.4. **Records of Division of Oil, Gas and Geothermal Resources.** Lessee hereby authorizes Lessor its representatives or agents, to examine and take copies of all records of the Division of Oil, Gas and Geothermal Resources of the State of California (including all officers, deputies and agents thereof) and all records of any other public authorities relating to any wells drilled upon the Leased Land or lands pooled therewith, including, but not limited to, all reports, records, notices and statements filed by Lessee. Lessor agrees to keep all such records, contracts and logs confidential if, to the extent, and during the period that they are on confidential status with the Division of Oil, Gas and Geothermal Resources. Except as to the foregoing confidentiality, Lessee hereby waives all restrictions now or hereafter imposed by statute or otherwise upon the use of such records by the Lessor as evidence in any litigation by or against Lessee.

23.5. **Statement to Lessor.** The receipt by Lessor of any statement, or any payment of royalty for any period, shall not bind Lessor or Lessee as to the correctness of the statement or payment. Lessor shall also be entitled, from time to time, to one or more independent audits of the records by a certified public accountant designated by Lessor for the purpose of determining compliance with this Lease. Such audit shall be conducted during usual business hours at Lessee's place of business within the State of California. If the audit shows that there is a deficiency in the payment of royalty, the deficient shall be immediately due and payable. The costs of the audit

shall be paid by Lessor unless the final adjudicated or agreed audit shows that Lessee understated proper royalty payments to Lessor by more than ten percent (10%), in which event Lessee shall pay all costs of the audit.

23.6. **Inspection by Lessor**. Lessor, at its sole cost, risk and expense, shall have the right, without hindrance, (a) to enter upon the Leased Land and to examine the work done and in progress thereon and to take samples of production, (b) to inspect Lessee's works, tanks and appliances, and (c) to examine, gauge and meter any or all of the hydrocarbons produced from the Leased Land or lands pooled therewith. Lessor agrees to make a reasonable attempt to contact Lessee prior to entry onto Leased Land or lands pooled therewith for the purposes set forth above. Lessor shall indemnify Lessee from and against any claims, damages, awards arising by virtue of its exercise of the rights granted in this paragraph or paragraph 22 (g).

24. **Lessor Option to Take Produced Water**. Lessor shall have the option at any time and from time to time to elect by written notice to Lessee to take any quantity of produced water from wells operated by Lessee on the Leased Land at no charge to Lessor, but into storage facilities and/or pipeline to be provided by Lessor and not required or useful by Lessee for its operations on the Leased Land or lands pooled therewith for Lessor's use or treatment and use.

25. **Lessor's Option to Purchase**. Lessor shall have the option, exercisable within the first one hundred eighty days of the twenty-fourth (24th) year of this Lease if it is then still in effect, exercisable by written notice from Lessor to Lessee, to purchase all of Lessee's right, title and interest in this Lease and in all wells thereon and operating equipment and pipelines associated therewith at the fair market value thereof.

26. **Savings Provision**. It is the intent of the Lessor that this lease is executed in accordance with its authority as a Charter Rule City and that the secondary term as stated herein is in the best interest of the City, provided, however, in the event that the term of this lease, if any beyond the Primary Term, violates any law existing on the date of this lease or the City's Charter as it exists on the date of this lease with respect to the term of the lease, then this lease shall be automatically amended to provide that the secondary term shall in no event extend beyond the maximum term allowed by law.

27. **Amendment**. This Lease may be amended without further bidding; but only by mutual written agreement of the parties hereto.

28. **Counterpart Execution**. This Lease may be executed in multiple counterparts, all of which, taken together, shall constitute one single Lease.

LESSEE:

MATRIX OIL CORPORATION

By: Johnny Jordan - President
Signature (title)

Johnny Jordan
Printed Name

CLAYTON WILLIAMS ENERGY, INC.

By: T. Mark Tisdale
T. Mark Tisdale, Vice President & General Counsel

Printed Name

LESSOR:

CITY OF WHITTIER

By: Stephen W. Helvey
Stephen W. Helvey, City Manager

APPROVED AS TO FORM:

By:
City Attorney

Date: 11/7/08

EXHIBIT "A"

All of those lands located in the incorporated area of the City of Whittier acquired by the City of Whittier under the following Deeds:

1. Grant Deed from Mountains Recreation and Conservation Authority to the City of Whittier dated December 20, 1995, and recorded on December 26, 1995, as Instrument Number 95-2043171, Los Angeles County Official Records; and

2. Grant Deed from The Trust for Public Land to the City of Whittier dated September 20, 1995, and recorded on October 16, 1995, as Instrument Number 95-1666829, Los Angeles County Official Records.

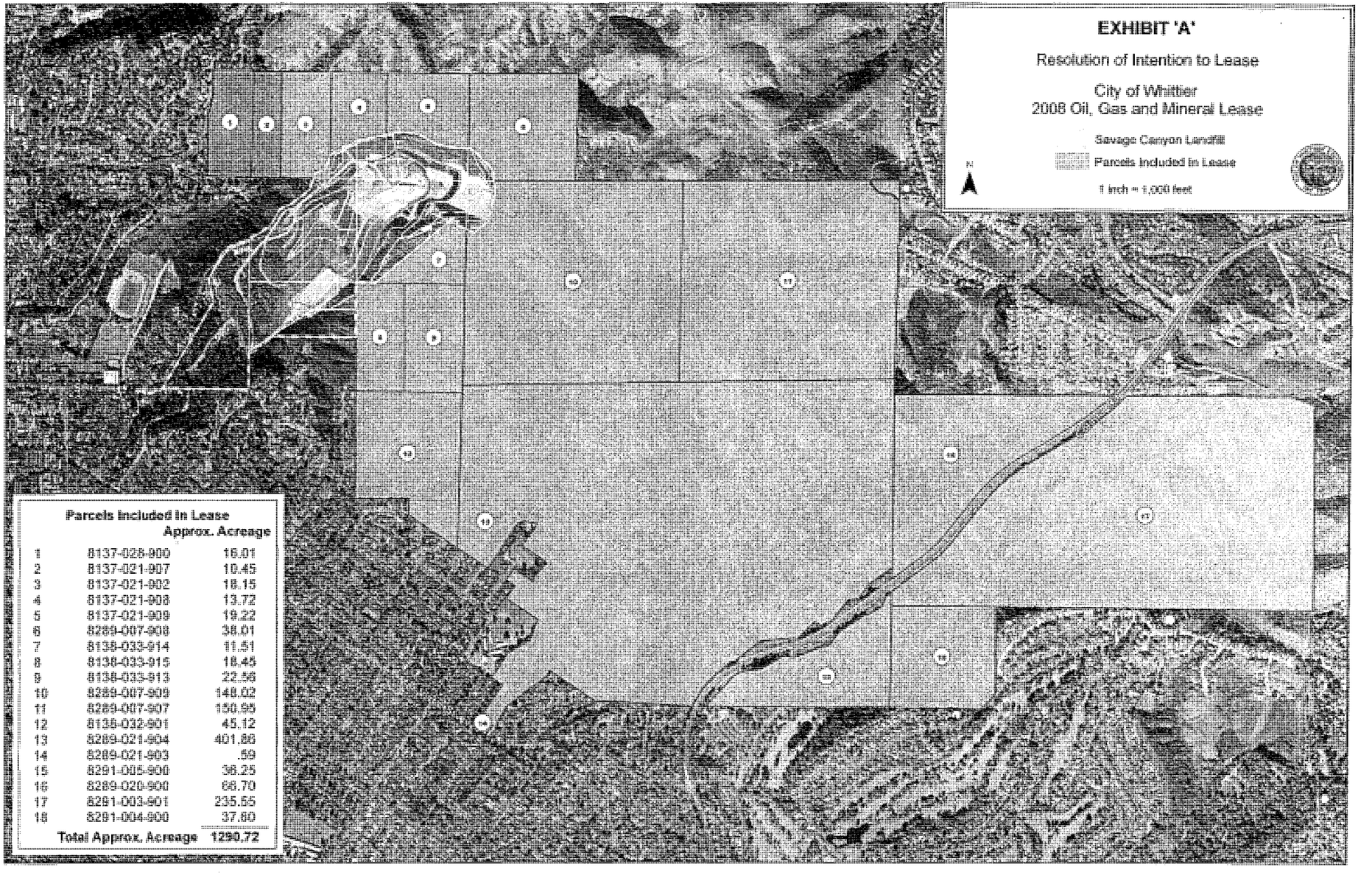
APN's:

1. 8137-028-900, Approximately 16.01 acres
   8137-021-907, Approximately 10.45 acres
   8137-021-902, Approximately 18.15 acres
   8137-021-908, Approximately 13.72 acres
   8139-021-909, Approximately 19.22 acres
   8289-007-908, Approximately 38.01 acres
   8138-033-914, Approximately 11.51 acres
   8138-033-915, Approximately 18.45 acres
   8138-033-913, Approximately 22.56 acres
   8289-007-909, Approximately 148.02 acres
   8289-007-907, Approximately 150.95 acres
   8138-032-901, Approximately 45.12 acres
   8289-021-904, Approximately 401.86 acres
   8289-021-903, Approximately 0.59 acres
   8291-005-900, Approximately 36.25 acres
   8291-004-900, Approximately 37.60 acres

2. 8289-020-900, Approximately 66.70 acres
   8291-003-901, Approximately 235.55 acres

Total Approximate Area 1290.72 acres

{00907522.2}



Parcels Included in Lease

		Approx. Acreage
1	8137-028-900	16.01
2	8137-021-907	10.45
3	8137-021-902	18.15
4	8137-021-908	13.72
5	8137-021-909	19.22
6	8289-007-908	38.01
7	8138-033-914	11.51
8	8138-033-915	18.45
9	8138-033-913	22.56
10	8289-007-909	148.02
11	8289-007-907	150.95
12	8138-032-901	45.12
13	8289-021-904	401.86
14	8289-021-903	.59
15	8291-005-900	38.25
16	8289-020-900	66.70
17	8291-003-901	235.55
18	8291-004-900	37.60
Total Approx. Acreage		1290.72

Exhibit "B" Attached to and a part of that certain Oil, Gas, and Mineral Lease dated October 28, 2008, by and between the CITY OF WHITTIER, as Lessor, and Matrix Oil Corporation and Clayton Williams Energy, Inc. as Lessee.

Well Information

IN DRILLING WELL(S) LESSEE SHALL:

(i) Test as a prudent operator any formation that either before or after logging as hereinafter provided appears favorable to Lessor for the production of oil and/or gas.

(ii) Conduct all operations with approved and accepted practices prevailing in the area where the well is drilled for wells of similar depth and testing similar formations.

(iii) Make adequate evaluation and tests to Lessor's satisfaction to determine if the well is capable of producing oil and/or gas from any formation encountered. This evaluation shall include, but not be limited to, a Dual Induction and/or Lateral Log, a BHC Sonic Log and a Compensated Neutron-Density Log over all zones of interest.

(iv) Afford Lessor, at its sole risk and expense, access to the derrick floor and full and free access to the well and the records thereof at any and all times.

(v) Give Lessor notice, pursuant to the notice provisions of this Lease, to have a representative present before any testing, coring or logging of a prospective oil or gas zone, or plugging and abandoning the well.

(vi) Advise Lessor, in writing, before commencing operations, of the name and address of the geologist and/or engineer servicing the well.

(vii) Furnish Lessor's attorney, without cost, the following reports, data and information in PDF or Microsoft Office compatible format, with the exception of electric logs which shall be provided as a hard copy:

DURING THE DRILLING OF THE WELL

(a) One (1) copy of any core analyses prepared by or for Lessee..

(b) Water samples, on request.

(c) One (1) copy of all correspondence, forms and reports filed with State and/or Federal agencies and one (1) copy of all correspondence, reports, permits or other documents issued to Lessee by State and/or Federal agencies.

UPON COMPLETION OF THE WELL

(d) One (1) copy of the chronological log and history of the well (well records and information record), not later than thirty (30) days after completion of well.
(e) One (1) final print of all logging surveys undertaken.
(f) A certified copy or photoprint of the plugging record required by the governmental office or body having jurisdiction over the premises, if the test well is a dry hole.
(g) One (1) copy of any core analysis and three (3) copies of any core report.
(h) One (1) copy of any bottom hole survey pressure taken.
(i) One (1) copy of any directional survey, if run.
(j) One (1) copy of drillstem test charts and analysis, if taken.
(k) One (1) copy of gas-oil ratio test, if taken.
(l) One (1) copy of open flow potential and shut-in test, if gas well.
(m) One (1) copy of any electrical log analysis.
(n) One (1) copy of geologic report, if performed, with properly annotated drilling time charts.
(o) One (1) copy of all correspondence, or other documents issued to Lessee by State and/or Federal agencies previously provided during the drilling of the well and all correspondence forms and reports filed with State and/or Federal agencies, not previously provided to Lessor's attorney during the drilling of the well.

Prior to the commencement of operations and after completion of any well as a well capable of producing oil or gas, all notices shall be delivered as provided in Section 20 of this Lease.

EXHIBIT H

OCTOBER 28, 2010 CITY COUNCIL MINUTES AND AGENDA FOR AWARD OF THE BID

Agenda Report

Date: October 28, 2008

To: Stephen W. Helvey, City Manager

From: David A. Pelser, Director of Public Works

Subject: Whittier Main 2008 Mineral Extraction Lease – Award

RECOMMENDATION

It is recommended the City Council:

1. Award the bid for the Whittier Main 2008 Mineral Extraction Lease to Matrix Oil Corporation of Santa Barbara, California; and
2. Approve and authorize the City Manager to sign the Whittier Main 2008 Mineral Extraction Lease and the Whittier Main 2008 Short Form Lease.

BACKGROUND

On August 26, 2008, the City Council adopted a Resolution of Intention (ROI) to lease property for the production of oil, gas and other hydrocarbons. A proposed Oil, Gas, and Mineral Lease Agreement form was also approved by the Council at that time. The ROI served as a type of request for proposals for the lease. In compliance with State law, the ROI was published four consecutive weeks in the Daily News prior to bid opening. On October 2, 2008 at 2:00 p.m. in the Council Chamber, proposals were publicly opened. The City Clerk received one proposal from Matrix Oil Corporation of Santa Barbara, California with Clayton Williams Energy, Inc. of Midland, Texas as Project Guarantor. This proposal was reviewed by the City's staff and a team of consultants for compliance with requirements of the ROI.

The remaining paragraphs of this Background Section essentially repeats the information provided in the August 26 staff report.

The City owns approximately 1300 acres of former oil fields in the hills north of the developed areas of the City (see Exhibit A to the Resolution of Intention). This was commonly known as the Whittier Main Field which was in oil production for over 100 years. The majority of this land was purchased from Chevron and Unocal with Measure A funds in order to preserve this land as open space and wildlife habitat. This land is managed for the City by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority), a joint powers agency with members including the City of Whittier, County of Lo Angeles, Los Angeles County Sanitation Districts, and Hacienda Heights Improvement Association. When oil production stopped, the oil was worth about $12 per barrel. Today, the oil is valued at approximately $100 per barrel. If the oil could be successfully extracted now, the City could receive a new source of revenue for its General Fund in the form of royalty payments from an oil company. In addition to the change in value of the remaining oil deposits, technology has also changed. New methods of drilling and pumping are much less invasive to the surface land uses and

Agenda Item No.: 9.A

the environment. We estimate the same 1300 acres of oil deposits could now be developed from approximately three surface sites of 2-3 acres each (less than half of 1% of the land). Furthermore, most of the drilling and pumping equipment can be placed in soundproof underground vaults that would not be visible. Therefore, it now appears feasible to access the valuable oil and gas resources while continuing to preserve our precious open space and wildlife habitat.

Project Concept

Extracting oil and natural gas will require an experienced oil company to partner with the City. The relationship with the oil company will be in the form of a mineral lease in which with the City will lease its mineral rights to the land and the oil company will pay the city royalties on the oil and natural gas produced. Under State law, the City must use a competitive process to solicit bids for the mineral lease. The highest qualified bidder will then have the opportunity to explore and extract the oil and natural gas. The request for bids is accomplished in the form of a resolution of intention. Attached is a proposed RESOLUTION OF INTENTION TO LEASE PROPERTY FOR PRODUCTION OF OIL, GAS AND OTHER HYDROCARBONS and a proposed OIL, GAS AND MINERAL LEASE.

The successful bidder on the mineral lease must still apply to the City for a Conditional Use Permit (CUP) in order to do any work on the ground surface such as set up a drill rig, pumps, and other equipment required to actually extract the minerals. The CUP application will describe exactly what the oil company plans to do, and will define the "project" that will be subject to review under the California Environmental Quality Act (CEQA) which will require an Environmental Impact Report (EIR). The Draft EIR will be circulated for public comment. The proposed OIL, GAS AND MINERAL LEASE has no guarantee that the successful bidder will be able to obtain a CUP once the environmental impacts are presented in the EIR. Also, if a CUP is issued, it will contain many specific requirements and mitigation measures for the oil company to follow. City staff and the Habitat Authority have already given this much thought and cooperated to provide the attached List of Potential Mitigation Measures in order to inform potential bidders and the public of the extent of environmental protections expected to be include in any future CUP. While it is unusual to anticipate mitigation measures prior to preparing an EIR, staff wants the public and the bidders to be aware of the high value the City places on the open space and wildlife habitat uses of this land. The actual mitigation measures and CUP conditions will be determined later by the City Council following public review of potential environmental impacts disclosed in the EIR.

Public Involvement

The public will have multiple opportunities to be informed and to comment while the process unfolds. Already, the City Council has heard a staff report at its meeting on April 22, 2008 and a presentation by Mayor Pro Tem Bob Henderson on June 24, 2008. Information was posted on the City's web site to keep the public informed. Several front page articles appeared in the Whittier Daily News. The CEQA process including

the preparation of an EIR will include multiple opportunities for public review and comment, as will the consideration of issuing a CUP. All through this process, there will be several government agencies which will have permitting and oversight authority to impose additional project requirements. For example, the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) has multiple regulations related to oil and natural gas exploration and production.

City Project Team

The City Manager assembled a team of key staff and consultants to work together in assessing the feasibility of a project to extract minerals from City-owned land in the Whittier Hills area. Specific staff members involved will vary according to the needs of the project at any particular time. During the preparation of the proposed RESOLUTION OF INTENTION and OIL, GAS AND MINERAL LEASE and during the review of the proposal received the City team included the following:

Bob Henderson, City Councilman and Chairman of the Board of the Puente Hills Landfill Native Habitat Authority
Steve Helvey, City Manager
Dick Jones, City Attorney
David Pelser, Public Works Director
Jeff Collier, Community Development Director
Rod Hill, Controller
Jim Day, Partner with Day Carter Murphy, LLP law firm
Kyle Rhorer, Vice President of RW Beck (finance and procurement specialist)
Tom Walker, Vice Pres. of Evans and Walker Consulting Petroleum Engineers

Request for Bids

Also in compliance with State law, there was only one variable on which to bid – royalty payments to the City. The Royalty payments were set at a minimum bid of 20% initial royalty plus an additional increment as price or production increases. Bidders were allowed to bid a higher initial royalty, a higher incremental royalty, or both. The royalty is based on either published market price or gross proceeds of sale per month. Royalty payments are made when production begins, even if it occurs during the Primary Term of the lease while rent payments are also paid.

Bidders were required to submit a check for $400,000 as initial deposit toward the City's costs including running the bid process and preparing an EIR. The deposit will be increased if City costs reach 90% ($360,000) of the initial deposit. Alternatively, a refund will be made to the Bidder if the City costs total less than the amount on deposit.

To protect the City from wasting time with unqualified bidders, the ROI includes Exhibit "B" - "Minimum Qualifications and Submittal Requirements". The bidders were required to demonstrate their technical, financial, and experience qualifications. Only bidders

that meet the minimum qualifications will be considered for award of a lease. The same minimum qualifications will be required as a condition of assignment of the lease should the successful bidder desire to assign the lease to another company at a later date.

Proposition A Compliance

The City's purchase of the Whittier Hills land subject to the proposed mineral lease was funded by a grant of Proposition A funds. Conditions of this funding prevent the City from using the land for anything other than open space. In order to make available for drilling and pumping approximately 8 acres of the surface in the 1300 acre mineral lease area, the City will have to either reimburse a portion of the Proposition A funds, or provide an additional comparable area of land that can be used for open space to compensate for that area used for surface facilities in oil production. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to compliance with this requirement. The proposed lease includes a provision that a CUP will not be issued by the City until a release from protected area status is obtained from the Proposition A District.

Limitations on Property Access

Prior to CEQA compliance and issuance of a CUP, the successful bidder will not be allowed to enter the property, except for visual inspections or surveys in support of preparing a CUP application.

Lease Payments During Primary Term

The Primary Term of the lease is three years, during which time CEQA compliance must be completed, a CUP issued, and drilling operations started. The first year's rental payment is $10.00 per acre (approximately $13,000) and is paid in advance with the proposal submittal. The rent for the next two years total is $140.00 per acre, or approximately $182,000.

Funding for Ecologist and Habitat Enhancement

The proposed lease requires the successful Bidder pay the Habitat Authority a monthly Management Fee of $5,000, increasing to $7,000 when drilling operations begin. The lease also requires payment to the Authority a Habitat Enhancement Fee of $100,000 annually upon starting drilling operations. Both of these fees will be adjusted over time by a consumer price index.

Payment of Taxes

The proposed lease requires the successful bidder pay all taxes including property taxes.

Insurance

The proposed lease requires workers compensation coverage, $1,000,000 in employer's liability insurance and $5,000,000 in both auto and general liability

insurance. It also provides for naming the City and the Habitat Authority as an additional insured.

Potential Mitigation Measures and CUP Conditions

The successful Bidder will have to apply to the City for a Conditional Use Permit. The CUP application will provide the basis for a project description that will be subject to CEQA review. Most likely, a full EIR will be required. CEQA compliance is likely to require mitigation measures be included in the proposed project. In addition, the City will likely have a number of conditions in a CUP. City staff and the Habitat Authority have already given this much thought and cooperated to provide a List of Potential Mitigation Measures in order to inform potential bidders and the public of the extent of environmental protections expected to be include in any future CUP. While it is unusual to anticipate mitigation measures prior to preparing an EIR, staff wanted the public and the bidders to be aware of the high value the City places on the open space and wildlife habitat uses of this land. The actual mitigation measures and CUP conditions will be determined later by the City Council following public review of potential environmental impacts disclosed in the EIR. The actual conditions adopted may be even more extensive than this List. The List is intended to serve as a starting point for public discussion and review. The List was made available to potential bidders and was attached to the August 26, 2008 staff report.

Hazardous Substances, Pollution, Well Abandonment, Restoration

While there are many safeguards that will be in place in the lease, in State regulations, and in various permits to assure safe and environmentally responsible operations, the lease also holds the successful Bidder responsible for all hazardous substances, waste materials, spills, and environmental pollution that may occur. The Bidder will be responsible for any cleanup and restoration due spills, pollution, and the like. Furthermore, the lease agreement includes reference to anticipated CUP conditions for establishment of a fund that will have sufficient moneys to pay for well abandonments and restoration of surface conditions upon completion of oil production operations.

DISCUSSION

At the appointed time and place City staff publicly opened the one bid received from Matrix Oil Corporation with Clayton Williams as Project Guarantor. City staff and the team of project consultants reviewed the proposal (s) submitted and found that it complies with the submittal requirements. The royalty amount bid was 30% which is well above the minimum 20% required. The team also determined that the Matrix and Clayton Williams team meets the qualifications requirements. The bid package included the required check for $400,000.00 (towards City costs) which was deposited and cleared by the bank.

FISCAL IMPACT

At this time, it is not possible to estimate with any certainty the fiscal impact of the proposed lease agreement. As described above the details of a proposed project to develop the mineral resources that are the subject of this lease will be included in an application for a Conditional Use Permit which is expected to result in preparation of an Environmental Impact Report. The $400,000 deposit by the bidder is expected to cover the City's costs of processing a CUP application including the cost of a consultant to prepare an EIR. If Matrix is successful in obtaining the necessary CUP and other permits, and if their oil exploration is successful, the City could benefit greatly over many years as a result of royalty payments made pursuant to the terms of the proposed lease agreement. The potential future royalty revenue to the City could be as much as millions of dollars annually for many years.

Submitted by:

David A. Pelser
Director of Public Works

Attachments:

A – Proposal Letter from Matrix Oil Corporation
B – Project Guarantor Acknowledgement Form by Clayton Williams Energy, Inc.
C – Whittier Main 2008 Mineral Extraction Lease Agreement
D – Whittier Main 2008 Mineral Extraction Short Form Lease Agreement

matrix oil corp
104 W. Anapamu Street, Suite C
Santa Barbara, CA 93101
Tel: 805 884-9000
Fax: 805 884-9000

October 2, 2008

VIA Hand Delivery
City of Whittier
13230 Penn St
Whittier, CA 90602

RE: Bid for Oil and Gas Lease
City of Whittier Resolution No 8155 (the "Resolution")

Ladies and Gentlemen:

Matrix Oil Corporation ("Matrix") as bidder and Clayton Williams Energy, Inc. ("Williams") as Project Guarantor hereby submit this bid for the Oil and Gas Lease described in the Resolution:

Bid:
Initial Royalty: 30%
Incremental Royalty: 1.25%
Highest Total Royalty not to exceed 50 %

Enclosed herewith is: (i) check in the amount of Four Hundred Thousand Dollars ($400,000.00) for the initial deposit; (ii) the Project Guarantor Acknowledgement form executed by Williams; and (iii) a notebook of documentation as required and set forth in Exhibit "B" to the Resolution.

As evidenced in the attachments hereto, Matrix and Williams together meet all of the requirements of a qualified bidder. Matrix has operated the adjoining West Whittier field since 2000. In 2006 Matrix and Williams commenced a successful development program in this field which increased production 278%. We firmly believe that our understanding of the geology and our operations at the Rideout Heights and Honolulu Terrace facilities demonstrate that the Matrix/Williams team are not only a qualified bidder, but the most qualified bidder.

If you need any additional information, please do not hesitate to call. We look forward to working together with the City on this project.

Respectfully Submitted,

Johnny Jordan

Johnny Jordan
President

ENCLOSURES

CLAYTON WILLIAMS ENERGY, INC.

PROJECT GUARANTOR ACKNOWLEDGEMENT

Matrix Oil Company ("Bidder") has submitted herewith a Bid in response to the City of Whittier, California ("City") to provide services under the Whittier Main 2008 Oil Extraction Project and the City's Oil, Gas, and Mineral Lease.

The Project Guarantor hereby certifies that it will irrevocably, absolutely and unconditionally guarantee the performance of all of the Bidder's obligations under the Oil, Gas, and Mineral Lease negotiated by the parties.

Name of Guarantor: Clayton Williams Energy, Inc

Name of Authorized Signatory:
T. Mark Tisdale

Signature: T. Mark Tisdale

Title: Vice President

CLAYDESTA CENTER SIX DESTA DRIVE SUITE 6500 MIDLAND, TEXAS 79705 432/682-6324 FAX 432/688-3247

OIL, GAS AND MINERAL LEASE

THIS OIL, GAS AND MINERAL LEASE (hereinafter "Lease") is, made and entered into this 28th day of October, 2008, by and between the **CITY OF WHITTIER**, a charter municipality of the State of California with a mailing address at 13230 Penn Street, Whittier, CA 90602 (hereinafter called "Lessor"), and Matrix Oil Corporation, a California corporation (as to an undivided 25%), with a mailing address at 104 Anapamu, Santa Barbara, CA 93101 and Clayton Williams Energy, Inc., a Delaware corporation (as to an undivided 75%), with a mailing address at 6 Desta Drive, Suite 6500, Midland, TX 79705 (hereinafter called "Lessee").

WITNESSETH: Lessor, for and in consideration of the rental paid upon execution hereof, receipt of which is hereby acknowledged, and Lessee's covenants and agreements hereinafter contained, does hereby lease, let and demise unto Lessee the land hereinafter described (hereinafter called the "Leased Land"), subject to the covenants, conditions and limitations hereinafter set forth, for the purposes and with the exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land, similar to the above-mentioned substances except for water (but not excepting water which may be produced in association with leased substances which may be used by Lessee in its operations on the Leased Land, but not sold) and geothermal resources (hereinafter collectively called "substances") and producing, extracting, taking, treating, storing of oil, removing and disposing of such substances from the Leased Land together with the right to construct, erect, maintain, operate, use, repair, replace and remove pipelines, telephone, telegraph and power lines, tanks, machinery, appliances, buildings, and other structures, useful, necessary or proper for carrying on its operation on the Leased Land, and rights-of-way for passage over, upon and across and ingress and egress to and from the leased land, or neighboring lands pooled therewith for any or all of the above-mentioned purposes. Lessor shall have the right to occupy and use the leased land in any manner and to any extent not inconsistent with Lessee's rights or in interference with Lessee's operations hereunder. The land hereby leased is situated in the County of Los Angeles, State of California, and described in Exhibit "A", attached hereto and incorporated herein by this reference, and containing 1,280 acres, more or less.

The parties hereby agree as follows:

1. **Term**. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

2. **Rental, Management Fee and Habitat Enhancement Fee.**

2.1 **Rental**. Lessee has paid to Lessor rental in full hereunder for the first twelve months of the term hereof. If Lessee has not commenced drilling operations on the leased land or terminated this lease within that time, Lessee, commencing with the earlier to occur of (i) the expiration thereof or (ii) Lessee's entry on the leased land to commence operations pursuant to any Conditional Use Permit which may be issued therefore by the City of Whittier shall pay or tender to Lessor in advance, as rental for the remaining two (2) years of the primary term hereof, the sum of One Hundred Forty Dollars ($140.00) per acre for so much of the said land as may then still be held under this lease at the time of payment which payment or tender shall operate as rental and as consideration for deferring the commencement of drilling operations for a period of two (2) years from the expiration of that period for which and advance rental has been paid. The commencement of drilling operations may then be deferred for up to but not beyond the balance of the paid up primary term hereof.

2.2 **Management Fee and Habitat Enhancement Fee**. Lessee shall pay the following management fee and habitat enhancement fee to the Puente Hills Landfill Native Habitat Preservation Authority:

(a) Management Fee. The sum of Five Thousand Dollars ($5,000.00) per month commencing on the date of acceptance in writing by Lessee of a Conditional Use Permit issued by the City of Whittier in accordance with the provisions of Paragraph 6.1, hereof, which management fee shall be increased to Seven Thousand Dollars ($7,000.00) per month commencing on the commencement of drilling operations (as defined in Paragraph 17.(a), hereof), and continuing annually thereafter on or before each anniversary of such date.

(b) Habitat Enhancement Fee. The sum of One Hundred Thousand Dollars ($100,000.00) per year commencing on the date of commencement of drilling operations (as defined in Paragraph 17.(a), hereof) on the Leased Land pursuant to an issued and accepted Conditional Use Permit and continuing annually thereafter on or before each next ensuing anniversary of the date of Lessee's acceptance of such Conditional Use Permit.

(c) CPI Adjustment of Management Fee and Habitat Enhancement Fee. The foregoing management and habitat enhancement fees shall be increased annually in a percentage equal to the percentage increase, if any, in the U.S. Department of Labor Consumer Price Index, All Goods-All Consumers, for the Los Angeles Metropolitan Area (or a reasonably equivalent replacement index to be selected by Lessor if such index is no longer published) commencing on the second anniversary of the date on which both such fees were paid.

(d) Credit for Portion of Incremental Royalty. If and to the extent that Lessee pays a portion of an incremental increase in royalty hereunder to the Puente Hills Landfill Native Habitat Preservation Authority pursuant to Paragraph 7.7, hereof, such incremental royalty amount paid each year to the Puente Hills Landfill Native Habitat Preservation Authority shall be a credit against the next ensuing management fee and habitat enhancement fee.

3. Payments and Notice.

3.1. **Payments**. The payments required to be paid by Lessee hereunder shall be made by check made payable to, and mailed to:

To the City of Whittier:

City of Whittier
ATTN: David Pelser
13230 Penn Street
Whittier, CA 90602

To the Puente Hills Landfill Native Habitat Preservation Authority:

Puente Hills Landfill Native Habitat Preservation Authority
ATTN: Andrea Gullo, Executive Director
7702 Walnut Street, Suite C
Whittier, CA 90602

3.2. **Notice**. Any notice to be given by either party to the other hereunder may be delivered in person or by registered or certified mail, postage prepaid, addressed to the party for whom intended as follows:

To Lessor at:

City of Whittier
ATTN: David Pelser
13230 Penn Street
Whittier, CA 90602

To Lessee at:

Matrix Oil Corporation
ATTN: Michael D. McCaskey,
Vice President
104 Anapamu
Santa Barbara, CA 93101

And to:

Clayton Williams Energy, Inc.
ATTN: T. Mark Tisdale,
Vice President and General Counsel
6 Desta Drive, Suite 6500
Midland, TX 79705

Either party may from time to time, by written notice to the other, designate a different address which shall be substituted for the one above specified. If any notice from one party to the other is given by registered or certified mail, service of notice will be considered made on the date of mailing if properly addressed and postage is fully prepaid.

4. Drilling Schedule.

4.1. **Drilling Within Primary Term.** Subject to the terms of Paragraph 2 above and Paragraph 6.1, below, Lessee shall, on or before the expiration of the Primary Term, commence and diligently prosecute the drilling of at least three wells to a depth adequate to test the Miocene Puente Formation, (the "Initial Test Wells") failing in which this Lease shall terminate, save and except for the Well Tract for such well theretofore drilled and completed as a well capable of producing in paying quantities, together with continuing nonexclusive rights to utilize the drill or well site and routes of ingress and egress and pipeline purposes therefor. Thereafter, Lessee shall engage in continuous drilling operations as provided in Paragraph 4.2, below.

4.2. **Continuous Operations.** If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at any one time, the continuous development obligation shall not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production.

Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled.

5. Offset Wells.

5.1. **Offset Distances.** If, after the date of this lease, a well is drilled and completed as a well capable of producing in paying quantities on adjoining property in which Lessor has no interest and the producing interval location thereof is at that time ascertainable and within 1320 feet of the exterior limits of any land embraced in this lease, or, if the producing interval location of such well is not ascertainable at that time, but the surface location thereof is within 1320 feet of the exterior limits of any land at the time embraced in this Lease, and gas (unassociated with oil) but not oil, is capable of being produced therefrom in paying quantities, or within 660 feet and oil is capable of being produced therefrom in paying quantities, unless a well offsetting the same has been completed or is being drilled by Lessee on the Leased Land, Lessee, subject to its right to quitclaim as herein provided, within forty-five (45) days after it is ascertained that the production of oil or gas from the well to be offset is occurring in paying quantities shall commence drilling operations at a suitable offset location, as hereinafter defined, to offset such well and drill and complete the same diligently to protect the Leased Land from drainage.

5.2. **Zonal Offset.** Lessee shall offset such outside well by drilling to the same producing formation or zone as the well to be offset, and no well existing or being drilled on the Leased Land shall satisfy this offset requirement unless drilled to the same producing formation or zone from which oil or gas is being produced by the well to be offset, and at a suitable offset location as hereinafter defined. The requirements of Paragraph 4 shall not relieve Lessee of this obligation to offset any producing well in a different strata or zone from that in which production is obtained on the Leased Land. For the purpose of satisfying obligations hereunder, an offset well or wells shall be considered as other wells required to be drilled hereunder.

5.3. **Additional Offset.** Notwithstanding anything in this Lease to the contrary, the offset requirements contained in Paragraph 5 shall constitute a minimum offset requirement only. Lessee shall drill and produce competitively offset wells at such times, to such depths, and at such locations upon the Leased Land as may be necessary to protect all zones remaining subject to this Lease from drainage by wells on other lands.

5.4 **Optional Compensatory Royalty in the Event of Lessee's Offset Default.** In addition to any other remedies available to Lessor under this Lease or under California law, should Lessee fail to quitclaim or drill and produce an offset well within the time provided in this Paragraph 5 or in the manner provided in this Paragraph 5, at Lessor's election to be exercised by written notice from Lessor to Lessee, Lessee shall be obligated to pay to Lessor a compensatory royalty in the royalty share provided in Paragraph 7.1 hereof, at the highest price being paid in the vicinity for substances being produced in the well to be offset, upon one-half of the production volume of the well to be offset until such time as Lessee has complied with the provisions of Paragraph 5 of this Lease. Provided, however, nothing contained in this Article 5 shall require the drilling of a well, or payment of compensatory royalties, to offset a well in which Lessee holds no interest whose reasonably anticipated production will not pay the actual costs of drilling, completing and producing of such well.

6. Operations.

6.1. **No Surface Entry Unless and Until Conditional Use Permit Obtained and CEQA Complied With**. Lessee shall not be entitled to make any surface entry on the Leased Land (other than for visual inspection or surveying purposes in support of an application for a Conditional Use Permit) unless and until: (i) a Conditional Use Permit has been applied for at the City of Whittier for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes and, if desired by Lessee, for the conduct of a seismic survey, (ii) environmental review under the California Environmental Quality Act ("CEQA") has been conducted and paid for by Lessee, (iii) a Conditional Use Permit has been issued by the City of Whittier, in its sole and absolute discretion; and accepted in writing by Lessee within a period of ten (10) days of the date of its issuance, and (iv) no Conditional Use Permit will be issued by the City of Whittier until Lessor has obtained a release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. The terms and conditions of any Conditional Use Permit which may be issued by the City of Whittier, including any mitigation measures and monitoring plans which may arise in the cause of any CEQA review thereunder, shall be deemed incorporated into this Lease as terms and conditions thereof.

6.2. **Lessee to Use Good Oil Field Practice**. Except as herein otherwise provided, Lessee shall drill and operate each well in accordance with good oil field practice, and in material compliance with any conservation or curtailment programs imposed by law or governmental agency with jurisdiction over operations on the Leased Lands. Lessee shall comply in all material respects with all state, federal and local laws and with the rules, regulations and orders of any federal, state or other governmental agency having jurisdiction in the Leased Land with respect to the spacing, drilling or producing of wells, or other operations for oil or gas, and if there be any conflict between the same and provisions of this lease, such laws, rules, regulations and orders shall modify or supersede, as the case may be, the relevant provisions of this lease.

6.3 **Protection of Leased Land From Liens/Indemnification**. Lessee shall at its own risk and expense provide and promptly pay for all labor, equipment and supervision of whatever kind or nature that may be needed to carry on the operations hereunder and to perform the requirements of this Lease, and nothing herein contained shall obligate Lessor to reimburse Lessee for any costs incurred by it hereunder or to return to or repay to Lessee at any time any sums paid to Lessor pursuant to the provisions of this Lease. Lessee agrees to pay all damages, losses and expenses incurred by Lessor and to defend, indemnify and to hold Lessor and the Leased Land free and harmless of and from all damages, losses, expenses (including attorneys' fees in any action arising out of matters herein set forth), liens, liability to or claims of others (including, but not limited to, surface owners, if other than Lessor, surface tenants and other oil and gas lessees) or injury to the Leased Land which result from or, in anyway arise out of or in connection with (a) any of the operations of Lessee on said lands, (b) the exercise by Lessee of any of its rights hereunder, (c) the doing of any labor or the furnishing of any materials or supplies to or for Lessee, (d) any act or failure to act on the part of Lessee or of any contractor engaged in doing work for Lessee, (e) any breach by any contractor engaged in doing work for Lessee, (f) any breach by Lessee or its contractors of any of the provisions of this Lease, or (g) the Lessee's release or threatened release of pollutants, contaminates, hazardous substances, gas or petroleum on, under, about or from the Leased Land. This obligation to defend and indemnify shall not be subject to, reduced or barred by any theory of consent, assumption of the risk, contributory or comparative negligence, not amounting to gross negligence on the part of Lessor or its agents, employees, contractors, or invitees (but not including any commercial lessees of Lessor hereunder), or any other risk or loss shifting theory at law or in equity. This obligation to defend and indemnify and hold harmless shall survive any termination or expiration of the lease or assignment of the Lease by Lessee, without limitation, and shall not be limited in any manner by the insurance requested in Paragraph 10., hereof.

6.4. **Enhanced Recovery Operations.** Lessee shall not engage or participate in any steam injection or or tertiary recovery operation upon or affecting the Leased Land without first submitting a detailed plan of the proposed operation to Lessor and obtaining Lessor's written consent thereto, which consent may be granted, withheld or conditioned at Lessor's sole discretion. With respect to any secondary recovery operations such as waterflood or pressure maintenance operations, Lessee shall submit a detailed plan of the proposed operation to Lessor and obtain Lessor's written consent thereto, which consent shall not be unreasonably withheld; provided, however, that if it is determined that a Conditional Use Permit is required for such flood, pressure maintenance or other enhanced recovery operation, such Conditional Use Permit must be applied for and obtained and Lessor's discretion as to the issuance of such Conditional Use Permit shall not be limited in such manner.

6.5 **Plugging and Abandonment and Site Restoration Fund or Bond.** The cost of plugging and abandoning any well drilled by Lessee and the cost of abandoning a well site which may be permitted by issuance of a Conditional Use Permit, together with the cost of site restoration and revegetation and habitat restoration shall be established to the reasonable satisfaction of the City of Whittier through the Conditional Use Permit issuance process, and, if a Conditional Use Permit is issued, Lessee shall establish out of Lessee's share of production of leased substances, without impact on Lessor's royalty share, a segregated sinking fund to cover the costs thereof, or in lieu thereof a bond reasonably acceptable to the City of Whittier, in accordance with the terms and conditions of any such issued Conditional Use Permit.

6.6 **Request for Additional Sites.** In the event that Lessee has drilled six wells on the Leased Lands, then Lessee shall have the right to request from Lessor one or more additional drillsites, subject to Lessee applying for and obtaining a Conditional Use Permit therefor and obtaining a release of any such additional sites from protected area status from the Los Angeles County Proposition A District. Lessor may in its sole discretion and for any reason deny or grant Lessee the right to construct any such additional site.

7. **Royalty.**

7.1. **Royalty Share**. The term "royalty share" as used herein means:

Thirty percent (30%) on the first $1,500,000.00 in market price (if leased substances are produced but not sold) or gross proceeds of sale of leased substances produced in any calendar month, plus an additional One and One-Quarter percent of One Hundred percent (1.25% of 100%) on each incremental $250,000.00 in market price (if leased substances are produced but not sold) or gross proceeds of sale of leased substances produced in any calendar month; provided, however, that the highest total royalty to be paid shall not exceed Fifty percent (50%).

7.2. **Royalty on Oil**. Lessee shall pay Lessor as royalty on oil the market price of said royalty share of all oil produced or lost from the Leased Land after making customary adjustment or deductions for temperature, water and sediment. In computing royalties all gravities shall be taken on the basis of oil containing not in excess of three percent (3%) water and other basic sediment. If Lessee sells said oil to an unaffiliated third party, market price shall be deemed and said royalty shall be paid on the basis of the gross proceeds thereof.

7.3. **Royalty on Gas.** Lessee shall pay to Lessor the royalty share of the gross proceeds received from the sale of any gas (excluding residual dry gas from extraction of casinghead gasoline), while the same is being sold off said land, or from any payment pursuant to a gas contract for gas not actually taken, but nothing herein contained shall require Lessee to save or market gas from said land unless there shall be surplus above fuel requirements and a market at the well for the same. Where the Lessee utilizes gas off the Leased Land, or where, due to Lessee's operations, gas shall be lost from the said lands in volumes that would have been marketable had such volumes been captured, the royalty share shall be based upon the market price of such gas at the wellhead.

If casinghead gasoline is extracted from the Leased Land or lands pooled or unitized therewith by Lessee from the natural gas produced from wells on said lands, then Lessee shall pay to Lessor as royalty 50% of Lessor's royalty share of the market price of the gasoline and 50% of the market price of other hydrocarbons (including residual dry gas) credited to this lease from the gas so treated.

7.4. **Royalty on Other Substances.** Lessee shall pay Lessor as royalty the market price on the Leased Land, in the condition as produced, of the royalty share of any substance covered by this Lease, other than oil and/or gas and the products thereof, which Lessee may elect to produce and save or market or utilize from the Leased Land.

7.5. **Royalty to be Free of Certain Costs.** Notwithstanding anything herein to the contrary, all royalties herein shall be computed without any deduction or charge on account of any tax, cost or expense of exploration, development, extraction or production, cleaning, dehydration, treatment, processing, extraction, compression, transportation or delivery, or any other deduction or charge whatsoever, whether of the same or a different character but shall bear its proportionate part of any ad valorem real property tax or possessory interest tax which may be levied against the mineral rights leased to Lessee hereunder.

7.6. **Payment of Royalties**. Within one hundred twenty (120) days following the first sale of oil and/or gas from the lands described herein or lands pooled therewith, but in no event more than two hundred forty (240) days after the date of first production or loss of marketable quantities of any such substances from said lands, Lessee shall pay, or cause to be paid, to Lessor such sums as shall have accrued to Lessor as royalties under this lease and thereafter such payments shall be made monthly, on or before the last day of the month following the month of production thereto for oil and on or before the last day of the second month following production for gas, without the necessity of the execution by Lessor, or any other party, of a division or transfer order. Notwithstanding anything herein to the contrary, in the event such amounts accruing to Lessor as royalty total less than one hundred dollars ($100.00) such amounts may be remitted the earlier of annually or when such amounts shall exceed one hundred dollars ($100.00). All sums not paid timely shall bear interest at the highest lawful rate from the date they are due until the date payment is received by Lessor. Lessee shall reimburse Lessor for all reasonable attorneys' fees, court costs, filing fees, and other costs or expenses incurred in connection with any legal action or other collection effort initiated by Lessor due to Lessee's failure to pay royalties hereunder in a timely manner in which Lessor is found to be entitled to recover any royalties and/or interest. In the event of a conflict between the terms and conditions of any division or transfer order as Lessor may execute and this Lease, the latter shall prevail and shall not be amended thereby. Lessee shall furnish Lessor monthly statements showing the computation of royalties.

7.7 **Payment of a Portion of Incremental Increased Royalties to the Puente Hills Landfill Native Habitat Preservation Authority**. If and to the extent that an incremental increased royalty becomes payable to Lessor hereunder, Lessor may direct Lessee by written notice to Lessee, to pay a portion thereof directly to the Puente Hills Landfill Native habitat Preservation Authority.

7.8. **Minimum Royalty**. To the extent contemplated in the following sentence, upon completion of a well or wells on the Leased Land capable of producing gas or oil in paying quantities, Lessee shall pay Lessor a minimum royalty hereunder of an amount equal to, and not less than, fifty dollars ($50.00) (minimum royalty) per acre annually for the total acreage held subject to this lease irrespective of the operation or suspension of operations of any such well or wells, or the curtailment of production therefrom. If at the expiration of any full calendar year following the Primary Term hereof, Lessor shall not have received royalties above an amount equal to the minimum royalty per acre as aforesaid, Lessee shall on or before the twenty-fifth (25th) day of January next succeeding pay to Lessor an amount equal to the difference between said royalties paid during the preceding calendar year and such minimum royalty per acre.

The minimum royalty payments provided for herein shall be deemed the equivalent of production and shall constitute performance under this Lease if Lessee shall make a diligent effort to obtain commencement of production from any gas and/or oil well completed on the Leased Land; provided, however, that Lessee shall not be privileged, in any event, to hold this Lease by actual production plus adjustment to minimum royalty, or by payment of minimum royalty alone, for more than three (3) years, cumulatively.

8. Ownership.

8.1. **No Warranty of Title.** This Lease is made without warranty of any kind as to title. Lessee accepts as satisfactory to itself the title of Lessor in the Leased Land and agrees that Lessor shall not be liable or responsible to Lessee in damages or otherwise by reason of any defects in or any liens or encumbrances on Lessor's title or any want of title in Lessor to the Leased Land, or any portion thereof, or to any hydrocarbons therein contained or found or produced thereon or taken therefrom. If any third party asserts any claim against Lessor on account of Lessee's extraction or removal of hydrocarbons from the Leased Land or other operations of Lessee thereon

(including, without limiting the generality of the foregoing, any governmental or other action or proceeding for the abatement of a nuisance or the cleanup, removal or other protection against a hazardous waste as now or hereafter defined), Lessee will defend and indemnify and hold Lessor harmless from all such claims except such portion thereof as represents a claim to Lessor's royalty, provided that upon receiving notice thereof, Lessor shall notify Lessee with reasonable promptness of the bringing of any action or the assertion of any such claim and shall allow Lessee to have Lessee's attorneys appear therein, either alone or in association with Lessor's attorneys (as Lessor may elect), in defending any such action on behalf of Lessor, each party paying the expenses of its own attorneys. Lessee shall promptly notify Lessor in writing of any judicial proceeding brought to the attention of Lessee, and affecting or purporting to affect, Lessee's possession or rights hereunder.

8.2. **Proportionate Reduction**. If Lessor owns a lesser interest in the oil, gas and other hydrocarbons in the Leased Land than the entire undivided fee simple estate therein, then any royalties, rentals and other payments herein provided for shall be paid to Lessor only in the proportion which Lessor's interest bears to the whole and undivided fee; provided, however, that Lessor shall have no obligation to reimburse Lessee, retroactively, for any payments already made by Lessee to Lessor.

9. Taxes.

9.1. **Payment by Lessee.** Lessee shall at its own expense and without any reimbursement by Lessor pay and discharge before delinquency (a) all taxes, assessments and other governmental charges which, during the term of this Lease, shall be levied upon or assessed or charged against (1) the improvements and personal property constructed or placed upon the Leased Land by or for Lessee under this Lease; and (2) the Leased Land or any part thereof or any minerals or mineral rights or other rights therein; (b) all other taxes, assessments and other governmental charges upon or referable to any operations or acts of Lessee or on its behalf on the Leased Land; (c) all other assessments, charges and obligations of any kind whatever that by reason of any operation of Lessee may be or might become a lien upon or charge against the Leased Land, or any part thereof, or any well thereon, and that are created by or shall arise under or by reason of any present or future law, ordinance, regulation or order whatever; and (d) all taxes, assessments and governmental charges levied by or arising under any present or future law, ordinance, or regulation upon or with respect to this Lease, the execution or delivery hereof, or the leasing of the Leased Land hereunder.

Lessee shall, and hereby agrees that after hydrocarbons are discovered in paying quantities hereunder it will pay, to Lessor promptly upon demand, as supplemental royalty hereunder, an amount equal to each such tax, assessment and other governmental charge so paid by Lessor (including the portion thereof for the unexpired part of the fiscal year in which the discovery is made, prorated as of the completion date of the discovery well), except any portion of any such charge which is referable to personal property or major improvements of Lessor or to minerals not then subject to this Lease and being produced by Lessor or any third party.

9.2. **Tax Liens**. If any tax lien for taxes of the nature referenced in paragraph 9.1., above, is filed against the Leased Land and is not removed or released within thirty (30) days of the date the tax lien is recorded in the Official Records of the relevant County, this Lease, without notice or demand by Lessor, shall automatically terminate in its entirety.

10. Insurance. Lessee shall maintain in full force and effect, at its own expense, a policy or policies of worker's compensation insurance as required by the State of California, a policy or policy of Employer's Liability with limits of at least $1,000,000.00 per occurrence, a policy or policies of Automobile Liability covering all owned, non-owned and hired vehicles, with limits of at least $5,000,000.00 per occurrence, and a policy or policies of commercial general liability insurance insuring Lessee and Lessor as an additional insured (and such other persons, firms or corporations as are designated by Lessor as having an interest in the Leased Land) against any liability for death, personal injury or property damage arising out of or resulting from Lessee's operations hereunder. Such general liability insurance shall have an initial combined single event coverage of not less than Five Million Dollars ($5,000,000.00).

Upon request Lessee will furnish Lessor valid certificates of insurance certifying the above coverage or evidence satisfactory to Lessor that Lessee is qualified to self-insure. In the event Lessor should determine that Lessee is qualified to self-insure, it is agreed between Lessee and Lessor that the intent of the provisions noted above concerning additional insured and waiver of subrogation shall apply to such self-insurance.

Lessee agrees that the insurance required by this Agreement shall not be materially changed, cancelled, or allowed to lapse for any reason, without thirty (30) days advance written notice to Lessor. As long as the respective insurers so

permit, each insurance policy obtained shall provide that issuing insurance company waives all right of recovery by way of subrogation against Lessor. Lessee's failure to acquire and/or maintain the required insurance coverages with at least the specified limits, or failure to provide any requested certification thereof within thirty (30) days following receipt of a written request from Lessor, or any successor, shall be grounds to withhold or deny any assignment and/or terminate this Agreement as to all of the said lands not then assigned to Lessee at Lessor's election.

11. Surrender and Forfeiture.

11.1. **Removal of Equipment and Restoration.** Lessee shall have the right at any time to remove from the Leased Land any machinery, rigs, piping, casing and other property and improvements belonging to or furnished by Lessee, including that installed in wells or otherwise affixed to the land; provided that, if this Lease terminates in its entirety, such removal shall be completed within one hundred twenty (120) days thereafter and, in the event of the termination of this Lease as to a portion of the Leased Land, all such property not needed by Lessee for its operations on land retained under this Lease shall be removed from the land as to which this Lease is terminated within one hundred twenty (120) days after such partial termination and the remainder shall be removed within one hundred twenty (120) days after the termination of this Lease in its entirety. Lessee, after termination of this Lease, shall drain and fill all sump holes and other excavations made by it on the Leased Land and in all other respects restore the Leased Land as nearly to its condition existing on the date hereof as is reasonably practical and in accordance with the terms and conditions of any Conditional Use Permit issued therefore (including, without limitation, any revegetation and habitat restoration therein required), but Lessee shall not be obligated to restore anything for which it may theretofore have made payment acceptable to Lessor for damages. The obligation of Lessee to restore the Leased Land (set forth above) shall include the obligation to remediate any contamination arising from Lessee's exercise of any rights granted hereunder.

11.2. **Lessee's Right to Surrender.** Lessee, at its option, may at any time quitclaim and surrender all of the Leased Land, in which event this Lease shall terminate and Lessee shall be relieved of all obligations hereunder save and except the obligation to pay rents and royalties theretofore accrued and any obligation hereby imposed for removal of equipment and restoration or remediation of the Leased Land, and any tax or assessment which Lessee would be obligated otherwise to pay under Paragraph 9, hereof, prorated for any of the tax or assessment year for which Lessee held the Leased Land. Lessee, at its option, may at any time after drilling on the Leased Land or on land properly pooled with all or a portion of the Leased Land and from time to time thereafter, quitclaim and surrender any part of the Leased Land not desired by it (but only to all depths and strata in the surrendered acreage), and in such event the amount of any rental or minimum royalty provided for in this Lease shall thereafter accrue only on the basis of the land not so quitclaimed, and the number of wells to be drilled before the land may be deemed fully drilled shall be determined by the acreage retained. Land so quitclaimed, and any portion of the Leased Lands released pursuant to the partial termination provisions of this lease, shall remain subject to the easements and rights-of-way herein provided for so long as necessary to accommodate operations by Lessee on the retained part of the Leased Land or lands pooled therewith, including the right to dispose of produced water through Disposal Wells. Anything to the contrary herein notwithstanding, Lessee prior to drilling may make no partial release or quitclaim as provided under this Paragraph comprising less than forty (40) acres.

Lessee may at any time with respect to all of the Leased Land or, at any time or from time to time after drilling with respect to a designated part of the Leased Land subject to the acreage limitation provided herein, (a) surrender its right to produce oil, or (b) surrender its right to produce gas. A surrender of the right to produce oil shall include a surrender of the right to produce the gas that may be produced therewith. A surrender of the right to produce gas shall include a surrender of the right to produce associated liquids which may be produced therewith. A surrender of oil or gas rights in all the Leased Land will relieve Lessee of further obligation to drill wells for the released substance. A surrender of oil or gas rights in a part only of the Leased Land will reduce the number of required oil or gas wells to a number determined by the acreage as to which oil or gas rights are retained by Lessee. A surrender of oil rights shall have no effect on obligations to drill for the substance for which Lessee has retained its rights.

11.3. **Lessee's Obligation to Release Deep Rights.** One year following the later of the expiration of the primary term or the termination of the continuous development program, this lease shall terminate for all depths 100 feet and more below the stratagraphic equivalent of the deepest horizon from which a well drilled in the Leased Lands is then capable (without further drilling operations) of producing oil and/or gas, or either of them, in paying quantities.

11.4. **Lessee's Obligation to Surrender Undeveloped or Non-Producing Acreage.** One year following the later of the date on which the Leased Land is fully developed or Lessee has completed or abandoned its

continuous development program under Paragraph 4, Lessee shall surrender and quitclaim to Lessor all of the Leased Land except as to Well Tracts surrounding (i) oil and gas wells then producing or capable of producing and on which reworking operations are timely performed and (ii) Injection Wells. Thereafter as to producing wells, if production ceases and there shall have been no production of hydrocarbons in paying quantities hereunder from a Well Tract retained by Lessee for a continuous period of one hundred eighty (180) days and in such time Lessee has not commenced and diligently prosecutes operations to convert such producing well into an Injection Well, this lease as to the subject Well Tract shall terminate and Lessee shall promptly surrender each such Well Tract to Lessor. With respect to Well Tracts held by an Injection Well, such Well Tract shall terminate at such time as Lessee permanently abandons injection operations at such well.

11.5 **Joint Use of Drill and Well Sites, Production Support Site, Access and Pipeline and Utility Routes Upon Partial Surrender or Termination of Lease.** In the event of the partial surrender or termination of this Lease, Lessee agrees that its rights to use of such drill and well sites and access and pipeline and utility routes as may be permitted by issuance of one or more Conditional Use Permits issued by the City of Whittier shall be nonexclusive, and that such sites and routes will be available for use by any oil and gas lessee obtaining an oil and gas lease from the City of Whittier or its successor for the exploration for and development of oil, gas or other hydrocarbons in the lands so released from this Lease, provided that: (i) such joint use would not unreasonably interfere with the remaining operations of Lessee under this Lease; (ii) that any such subsequent oil and gas lessee applies for and obtains a Conditional Use Permit therefore from the City of Whittier; and (iii) that any such subsequent oil and gas lessee shall not be entitled to utilize any tanks, pipelines or other production, transportation, marketing, treatment or sales physical facilities installed by Lessee unless there is adequate surplus capacity to the needs of Lessee and any such subsequent oil and gas lessee pays to Lessee fair value for such joint use of physical facilities of Lessee, including value for a proportionate part of the abandonment obligations hereunder.

12. Force Majeure.

12.1. **Suspension of Obligations During Force Majeure.** Performance of covenants and conditions imposed upon Lessee hereunder shall be excused while, and to the extent that, Lessee is hindered in or prevented from complying therewith, in whole or in part, by war, riots, strikes, lockouts, natural disasters, accidents, inability (after a thirty (30) day attempt) to obtain materials or services in the open market or to obtain transportation therefor, laws, rules, and regulations of any federal, state, municipal or other governmental agency or any other cause beyond the control of the Lessee, whether similar or dissimilar to those herein specifically enumerated and without regard to whether such cause exists at the date hereof or hereafter arises; provided, however, that (i) Lessee shall provide written notice to Lessor of any claim of suspension or excuse of Lessee's obligations under this Paragraph, specifying with particularity the act, event, or condition giving rise to such claim of suspension or excuse and specifying the date on which such act, event, or condition arose; and (ii) in the case of any governmental approval, Lessee shall have applied for such approval sufficiently in advance to reasonably obtain such approval prior to Lessee's obligation to perform under the covenants and conditions herein. The obligations of Lessee under this Lease shall not be suspended or excused pursuant to this Paragraph unless and until such written notice to Lessor is given and shall not be suspended or excused by any act, event, or condition as to which Lessor has not been so notified. Lessee shall diligently pursue the removal or lifting of such act, event, or condition in such manner as may be reasonably practicable throughout the course of its existence. Notwithstanding anything herein contained to the contrary, the obligations of Lessee hereunder shall not be suspended or excused by reason of failure to obtain any permit for the drilling of the initial well unless such permit shall have been applied for at least six (6) months prior to the expiration of primary term hereof, and such application shall have been diligently pursued. The failure to obtain any other governmental permit or entitlement shall not be deemed an event of force majeure unless Lessee shall have submitted a timely and complete application therefor and such application shall have been diligently pursued; in which event Lessee's obligations shall not be suspended hereunder for a period of longer than one (1) year from the date a completed application was filed.

13. Default. In addition to all other rights and remedies of Lessor under this Lease or the law, if Lessee shall be in default in the performance of any of Lessee's covenants under this Lease, and if for a period of fifteen (15) business days as to the payment of undisputed (not challenged in court by Lessee) royalties (or fifteen (15) days after resolution of any dispute thereover), including minimum royalties or thirty (30) days as to other undisputed defaults (or thirty (30) days after resolution of any dispute thereover), after written notice by Lessor of such default except for Lessee's failure to give a notice under Paragraph 20, hereof (for which Lessee shall pay to Lessor $100.00 for each day or portion thereof such notice is not given), Lessee shall fail to commence and thereafter diligently and in good faith to prosecute the remedying of such default then, at the option of Lessor this Lease shall forthwith cease and terminate and all rights of Lessee in and to the Leased Land shall be at an end, save and except as to any wells

theretofore drilled or being drilled and in respect to which Lessee is not in default and the applicable Well Tracts and appurtenances therefore. Upon termination of this Lease by default, Lessor, without notice or demand, may reenter the Leased Land or any part thereof, and expel, remove and put out Lessee or any person or persons occupying the Leased Land, and, if not removed by Lessee under the provisions of Paragraph 11 hereof, Lessor may (i) remove all property therefrom using such force as may be necessary to again repossess and enjoy the Leased Land as before this demise, and (ii) to restore and remediate the Leased Land or affected portion thereof to return it to as near as original condition as practical, without prejudice to any other remedies to which Lessor might be entitled and without liability to Lessee or any third party for damages sustained by reason of such removal, provided that no default in the performance of any of the conditions or provisions hereof as to any well or wells shall affect the right of Lessee to continue Lessee's possession and operation of any other well or wells (to depths and portions of the Leased Land earned) in regard to which Lessee is not in default, together with the Well Tract earned and the surface well site parcel for each such drilling or producing oil or gas well, and rights-of-way and easements necessary for Lessee's operation thereof. In the event that Lessor properly exercises the above right to expel Lessee, remove equipment, or restore and remediate the Leased Land or any portion thereof, Lessee shall protect, defend, indemnify and hold Lessor harmless from any cost, risk, expense or other liability associated with the exercise of such rights. In order for the written notice required herein for termination of this Lease to be effective, such notice shall be delivered by certified mail, set forth the specific allegations of the breach and contain in bold, conspicuous print that failure to take action will result in termination of the lease. The time periods set forth above shall be calculated from the date of receipt of such notice.

In addition, without limiting in any way Lessor's remedies upon default, any amount due under this Lease which is not paid when due, unless excused pursuant to Paragraph 12 hereof, shall bear interest at the highest lawful rate for debts of that kind and character from the date said amount became due until the date payment in full shall be received by Lessor.

14. **Assignment.** This Lease and each and all of its provisions shall be binding upon and shall inure to the benefit of the heirs, administrators, executors, successors and assigns of the respective parties hereto. Lessee shall not, however, sublet the demised premises or any part thereof, or assign, transfer, or otherwise convey this Lease or any of its rights hereunder or any of its interest in or to the demised premises, or enter into any partnership overriding royalty or participation agreement with respect to rights of Lessee hereunder, without the prior written consent of Lessor which may be granted, withheld or conditioned at Lessor's sole discretion up until the expiration of the Primary Term. Thereafter such consent shall not be unreasonably withheld by Lessor. Without limiting the generality of the foregoing, Lessor may withhold such consent if the proposed assignee or transferee does not demonstrate to the reasonable satisfaction of Lessor that it meets the Minimum Qualifications for Bidders which was attached as Exhibit "B" to the Resolution of Intention to Lease adopted by the City Counsel of the City of Whittier on August 26, 2008. In the event that Lessee shall sublet, assign, transfer, otherwise convey the Leased Land or its rights and interest hereunder, or any part thereof, or enter into any partnership, overriding royalty or participation agreement with respect to rights of Lessee hereunder, or attempt to do so, in violation of the foregoing provision and if after the primary term Lessee has not contested the reasonableness of Lessor's withholding of consent and thereafter established that the withholding of such consent was unreasonable, to assign by Lessor consent would be reasonable, then, in addition to any and all other rights and remedies available to it, Lessor may at its option, by written notice to Lessee within ninety (90) days after receiving actual knowledge of such event, declare such sublease, assignment, transfer, mortgage, conveyance, encumbrance or agreement void. Notwithstanding the foregoing, assignment of overriding royalty interest(s) in the leasehold in an amount not to exceed in the agregate10% of 8/8ths of production and lease shall be permitted under the terms hereof without the consent of Lessor. In the event that Lessee shall file a voluntary petition in bankruptcy or shall be adjudged a bankrupt in any involuntary bankruptcy proceeding, or in the event that any voluntary or involuntary proceeding for the reorganization of Lessee shall be instituted by anyone other than Lessor under any of the provisions of the bankruptcy laws of the United States, or in the event that (except in proceedings instituted by Lessor) a receiver or judicial trustee or custodian shall be appointed for, or any lien or any writ of attachment, garnishment, execution or distraint shall be levied upon, any of Lessee's rights or interest under this Lease, or in the event that there shall be any assignment of any of Lessee's rights or interest under this Lease by operation of law, then, in addition to any and all other rights and remedies available to it, Lessor may at its option, by written notice to Lessee within ninety (90) days after receiving actual knowledge of such event, terminate this Lease and all rights and interest of Lessee and all other persons under this Lease. Lessee shall be entitled to enter into financing arrangements whereby its interest is conveyed into a partnership or other entity controlled by Lessee and otherwise entitled to encumber all but Lessor's royalty share of production, or the proceeds of sale thereof, from the Leased Land without the prior written consent of Lessor for the purpose of financing its operations on the Leased Land, but not otherwise without Lessor's prior written consent, which shall not be unreasonably withheld. Any consent of Lessor to any sublease, assignment, transfer, conveyance,

encumbrance or agreement shall not be or be deemed or construed as a consent to any other, different or subsequent sublease, assignment, transfer, mortgage, conveyance, encumbrance or agreement, nor as a waiver or exhaustion of any of the provisions of this Paragraph. The provisions and agreements contained in this Paragraph with respect to Lessee shall be applicable to any and all subleases, assignees, transferees, mortgagees and other persons holding or claiming any of the rights or interest of Lessee under this Lease as well as to Lessee originally named herein. The term "Lessee" as used in this article includes any individual, partnership or corporation who is a lessee hereunder even though several individuals, partnerships or corporations are such and includes each partner of any partnership which is a lessee hereunder. Notwithstanding the foregoing, Lessee may assign all or part of its interests in the lease to an affiliate (defined as an entity owned or controlled by Lessee) thereof without the consent of Lessor.

15. **Pooling and Unitization.** Lessee shall have the right at its option, at any time, either before or after the discovery of oil, gas or other substances on the Leased Land to present to Lessor a specific proposal to combine and pool all or any part of the Leased Land or interest therein into one or more operating units with any other lands or interests therein (whether held by Lessee or others and whether or not the surface of such other land may be used for oil or gas development purposes). Lessor may, at its sole discretion, either consent in writing to the formation of such pool or operating unit, or withhold its consent, and no pool or operating unit may be formed without the prior specific written consent of Lessor. Each operating unit created hereunder with the consent of Lessor shall be created by and shall become effective upon the execution by Lessee and the recording in the office of the appropriate County Recorder of a Declaration of Pooling setting forth the exterior boundaries of the unit so created and describing the lands pooled thereunder, followed by the prompt mailing of a copy thereof to Lessor. If there are any lands or interests in lands within the exterior boundaries of any operating unit which are not pooled therein, Lessee may, with Lessor's prior written consent which may be withheld for any reason, at any time after creation of such unit, add any or all such additional lands or interest to such unit by executing a Supplemental Declaration of Pooling, but no retroactive adjustment of royalties shall be made. Promptly after execution of each Declaration of Pooling and each Supplemental Declaration of Pooling, Lessee shall give written notice thereof to Lessor. Any operating unit may include land upon which a well has theretofore been completed or upon which operations for drilling have theretofore been commenced, and within the meaning of the requirements of the Lease any such well or operations, if off the Leased Land, shall be considered as having been commenced immediately after the effective date of such pooling. Production, drilling or reworking operations anywhere on the operating unit created hereunder shall be treated as production, drilling or reworking operations on that portion of the Leased Land properly included in such operating unit. Any portion of the Leased Land included in an operating unit pursuant to this Lease shall thereafter during the term of such operating unit be deemed to be segregated from the balance of the Leased Land and any portion of the Leased Land not included within such unit shall be subject to further rental, development or release in accordance with the terms of this Lease, and Lessee shall not be entitled to hold any land not so included by virtue of drilling upon or production from land included in such unit. There shall be allocated to the Leased Land the proportion of the pooled production from any such operating unit (whether or not such production is from the Leased Land) that the number of surface acres covered by this Lease and included in such unit bears to the total number of surface acres in such unit; royalties shall be paid hereunder only upon that portion of such production so allocated, and as to pooled production from land in such unit such royalties shall be in lieu of any other royalties. Lessee may at any time quitclaim to the persons entitled thereto all or any part of the land in any such operating unit and no owner of land in such unit not owning any interest in quitclaimed land, except by virtue of such pooling, shall have any interest in such quitclaimed land after the quitclaim is delivered or recorded. Allocation of production as aforesaid from any such operating unit, whether to the Leased Land or in like manner to other lands therein, shall continue notwithstanding any quitclaim or other termination, either in whole or in part, of this or any other lease covering lands in such unit until such time as the owner of such land shall (or shall give others the right to) drill for or produce any of the pooled substances from any pooled part of such lands, whereupon all such lands formerly included in such unit and as to which the Lease covering the same shall have been terminated, shall be excluded in determining the production to be allocated to the respective lands in such units and in prorating taxes; and in the event of the failure of Lessor's or any other owner's title as to any portion of the land included in any such operating unit; such portion of such land shall likewise be excluded from such unit; provided that Lessee shall not be held to account for any production allocated to any lands excluded from any such operating unit unless and until Lessee has actual knowledge of the aforesaid circumstances requiring such exclusion. Lessee may, at any time either before or after the commencement of the drilling of a well on lands included in any such operating unit but prior to the discovery thereon of the substance for which the unit was formed, or at any time after the abandonment of all wells drilled on such unit, wholly dissolve such unit by executing and recording in the office of the appropriate County Recorder a Declaration of Dissolution.

Promptly after execution of such Declaration of Dissolution Lessee shall give written notice thereof to Lessor. Upon the dissolution of any such operating unit, whether or not this Lease or any other Lease involved therein remains in

effect, all rights of Lessor hereunder to royalty on pooled substances produced from the lands which were so pooled (other than the Leased Land) shall cease and terminate; but such dissolution shall not otherwise affect or impair any of Lessee's rights or obligations under this Lease, including its right upon obtaining the prior written consent of Lessor to create a new operating unit or units out of the lands previously pooled pursuant to this Paragraph, or constitute a surrender of any part of or any interest in the leasehold estate created hereby. The sale, conveyance or other transfer of, or of any interest in, any portion or portions of the Leased Land which are at the time of such transfer subject to an operating unit shall (unless the instrument effecting such transfer expressly provides otherwise) be deemed to include and shall operate as a transfer and assignment of all of the transferor's interest, rights and benefits under this Lease (including the right to royalty on allocated production from the lands subject to any such unit) insofar as such interest, rights and benefits pertain to or are allocated hereunder to the portion or portions of the Leased Land or interest therein so transferred. For the purpose of determining drilling obligations in such unit, which shall be equal to the drilling obligations set forth hereinabove in this Lease, the entire acreage so pooled shall be treated as if it were covered by one Lease and the drilling of a well in any part of such unit, whether or not on land covered by this Lease, shall fulfill Lessee's drilling obligations under the Lease to the same extent as if such well were drilled on land covered by this Lease and no offset obligations shall accrue with respect to the tracts of and included within any pooled unit as a result of wells drilled therein.

16. **Seismic Activities.** Lessor hereby grants to Lessee or to Lessee's nominee, for Lessee's benefit, subject to Lessee obtaining a Conditional Use Permit therefore as provided in Paragraph 6.1, above, permission to conduct seismic or geophysical surveys on said land by any method, whether now known or not, provided that Lessee, or Lessee's nominee shall pay the party or parties entitled thereto for any and all damages to person or property, including damage to water wells located on said land, resulting from the making of such surveys. Notwithstanding anything herein to the contrary, nothing contained in this Lease is intended to grant to Lessee the exclusive right to conduct seismic and other geophysical operations across the Leased Land from and after the point in time at which portions (by depth or otherwise) of the Leased Land are released or surrendered to Lessor, such that such operations may be conducted by others to evaluate the released or surrendered portions of the Leased Land. In the event Lessee shall conduct seismic or other geophysical surveys over the Leased Land, Lessor shall be entitled to receive a copy thereof including any such data in digital form at such time as such data is available to Lessee.

Lessor expressly reserves the right to conduct seismic and other geophysical operations across the Leased Land on its own behalf and to grant such right to third parties from time to time and at any time. Any rights, data, fees and revenues attributable to the exercise by Lessor of such rights shall be the sole property of Lessor or its licensee, and Lessee shall not be entitled to see such data or share in such revenues or fees.

Additionally, Lessor, its affiliates, successors, assigns or agents, shall have the right to review and inspect during normal business hours upon ten (10) days written notice, all geophysical and seismic data obtained by Lessee under this Paragraph.

17. **Definitions.** The following terms or phrases, and variations thereof, except where the context requires a different meaning, shall have the following meanings in this Lease:

(a) The words "drilling operations" as used herein shall mean the location of a drilling rig on the Leased Land or lands pooled therewith and the spudding of a well both of which must have occurred before "drilling operations" will be deemed to have commenced.

(b) Lessee shall have met its minimum development program under Paragraph 4 and the Leased Land shall be deemed "fully drilled" when there has been drilled a sufficient number of oil and/or gas wells to earn Well Tracts, as hereinafter defined, to encompass all of the Leased Land.

(c) The term "suitable offset location" as used in Paragraph 5 of this Lease shall mean a location within a distance from the boundary line separating the properties equal to the distance from the well to be offset to said boundary line (though the offset well need not in any event be closer than 200 feet from said boundary line) and within one-half (1/2) of such distance from a line drawn at right angles to such boundary line from the well to be offset through such boundary line and extended through the Leased Land.

(d) A "Well Tract" as used herein shall mean the following:

i. In the case of an oil well producing from a depth of 4,000 feet or less - forty (40) acres;

ii. In the case of an oil well producing from a depth of 4,001 feet to 8,000 feet - eighty (80) acres;

iii. In the case of an oil well producing from 8,001 feet or deeper – one hundred twenty (120) acres;

iv. In the case of a gas well producing from a depth of 8,000 feet or less - one hundred sixty (160) acres;

v. In the case of a gas well producing from 8,001 feet to 12,000 feet - three hundred twenty (320) acres;

vi. In the case of a gas well producing from below 12,000 feet - six hundred forty (640) acres;

vii. In the case of a horizontal well – 240 acres in compact shape evenly spaced on either side of the horizontal or near horizontal portion thereof open to production.

viii. In the case of substantially deviated well – the greater of eighty (80) acres, or the acreage earned by the depth of the producing interval thereof, or if such well is of the type described in subparagraph ix., below, the acreage therein provided for.

ix. In the case of a well drilled into multiple, separate, accumulations of oil or gas which are reasonably determined to be capable of production in paying quantities, 660' on either side and 330' on either end of that portion of the well bore from the first such accumulation encountered to the last such accumulation encountered and open to production.

x. In the case of a well which meets the criteria of subparagraph ix, above, and is also a horizontal well, the greater of the acreage provided under subparagraph vii or ix, above.

(e) The term "oil well" is any well

i. which produces crude petroleum oil not associated with gas at the time of production, or

ii. which produces one barrel or more of crude petroleum oil to each 2,000 cubic feet of natural gas, or

iii. which produces crude petroleum oil from a formation or producing horizon productive of oil only, encountered in a well bore through which gas also is produced through the inside of another string of casing.

(f) The term "gas well" is any well

i. which produces natural gas not associated with or blended with crude petroleum oil at the time of production, or

ii. which produces more than 2,000 cubic feet of natural gas to each barrel of crude petroleum oil from the same producing horizon, or

iii. which produces natural gas only encountered in well bore through which crude petroleum oil also is produced through the inside of another string of casing.

(g) For purposes hereof, a horizontal well shall mean a well drilled, completed or recompleted in a manner in which the horizontal or near horizontal component of the completion interval in the geological formation exceeds the vertical or near vertical component thereof and exceeds 300 feet in such formation.

(h) For purposes hereof a substantially deviated well shall mean a well for which the producing interval is located at least One Thousand Three Hundred Twenty (1,320) feet distant, horizontally, from the surface drillsite thereof.

(i) The term "paying quantities" as used herein, shall mean production in quantities sufficient to yield a return in excess of operating costs.

(j) The term "Injection Well" as used herein shall mean a well used to inject water or gas for the purposes of maintaining reservoir pressure or waterflooding a formation in connection with secondary recovery operations.

(k) The term "Disposal Well" as used herein shall mean a well used to inject produced water from the Leased Lands for purposes of disposing of such water.

(l) The term "market price" as used herein if oil is not sold or is sold to an affiliate of Lessor, shall mean the highest posted price available in the vicinity of the Leased Land for oil of like quality as that produced hereunder.

18. **Waiver.** The waiver by Lessor of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of such term, covenant or condition for any subsequent breach of the same or any other term, covenant or condition herein contained. The subsequent acceptance by Lessor of any sum due under this Lease shall not be deemed to be a waiver of any preceding breach by Lessee of any term, covenant or condition of this Lease, other than the failure of Lessee to pay the particular sum accepted.

19. **Authority to Execute.** If Lessee is a corporation, each individual executing this Lease on behalf of said corporation represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of said corporation in accordance with a duly adopted resolution of the Board of Directors of said corporation or in accordance with the bylaws of said corporation, and that this Lease is binding upon said corporation in accordance with its terms.

Upon request, Lessee shall supply a copy of an adopted resolution or the bylaws which empower the party executing this to act on behalf of the corporation.

20. **Notice Periods.** In addition to the notice requirements set forth elsewhere in this Lease, Lessee shall give Lessor oral notice by telephone or in person, followed by prompt written confirmation, at the telephone number and address set forth in Paragraph 4 above, as follows:

(a) Notice at least seventy-two (72) hours prior to entry on the Leased Land with a drilling rig;

(b) Notice at least seventy-two (72) hours prior to spudding any well drilled on the Leased Land or on land pooled therewith;

(c) Notice within seventy-two (72) hours of the release of a drilling rig from any well on the Leased Land or any land pooled therewith;

(d) Notice within seventy-two (72) hours of completion of any well drilled on the Leased Land or on land pooled therewith;

(e) Notice at least seventy-two (72) hours prior to abandonment of any well drilled on the Leased Land or on land pooled therewith;

(f) Notice at least seventy-two (72) hours prior to conducting any geological, geophysical or seismic activities on the Leased Land or pursuant to this Lease;

(g) Notice within seventy-two (72) hours of the first sale of any substance from a well drilled on the Leased Land or on land pooled therewith;

(h) Notice of cessation of production accompanied by a description of the reasons therefor, within fifteen (15) consecutive days following any such cessation;

(i) Notice within ten (10) days of the completion of any well with a producing interval within 1320 feet of an exterior boundary of the Leased Land in which Lessee has any economic interest upon adjacent lands that are not pooled with the Leased Land and in which Lessor is not a mineral Owner, which notice shall include a description of such well, its producing zone(s) and surface drill site and bottom hole location.

21. **Attorneys' Fees and Court Costs.** The substantially prevailing party in any action regarding this Lease shall be entitled to its reasonable attorneys' fees and court costs (which shall include the cost of staff time or expert witnesses) including, but not limited to, appeals, if any.

22. **Hazardous Waste.** (a) Lessee acknowledges that Lessor shall not be deemed to have made (and Lessor hereby disclaims) any representation or warranty, express or implied, as to the condition of the Leased Land or any improvements located thereon.

(b) If Lessee uses, generates, manufactures, produces, stores, releases, discharges, or disposes of on, under or about the Leased Land or transports to or from the Leased Land any hazardous substance or allows any other person or entity to do so, it will do so in strict accordance with applicable requirements of state, federal, or local laws, regulations, ordinances, rules or guidelines. Such requirements include, but are not limited to, containment systems and administrative controls.

(c) Lessee shall give written notice to Lessor within twenty-four (24) hours of:

i. any spill or release that is required to be reported to the California Governor's Office of Emergency Services ("OES") and/or the Environmental Protection Agency ("EPA");

ii. any proceeding or inquiry by any governmental or regulatory authority with respect to the presence of any hazardous substance on the Leased Land or the migration thereof from or to other property;

iii. all claims made or threatened by any third-party against the Leased Land relating to any loss or injury resulting from any hazardous substance; and

iv. Lessee's discovery of any occurrence or condition on any real property adjoining or in the vicinity of the Leased Land that could cause the Leased Land or any part thereof to be subject to any restrictions on ownership, occupancy, transferability or use under any environmental law.

(d) Lessor shall have the right to join and participate in, as a party if it so elects, any legal proceedings or actions initiated in connection with any environmental law or regulations.

(e) Lessee hereby agrees to protect, defend, indemnify and hold harmless Lessor, its directors, officers, employees, agents, successors and assigns, against and from any and all costs, claims, loss or liability, including third-party claims and, regardless of legal theory, arising directly or indirectly out of or attributable to any soil or ground water contamination on, under or adjacent to the Leased Land or the storage, release, threatened release or disposal of wastes of any kind on the Leased Land (the "Contamination"), including without limitation costs of clean-up, civil penalties assessed for any such contamination, disposal or other remedial or preventative action. This indemnity and hold harmless agreement shall apply to any contamination caused by Lessee, its affiliates, successors, assigns, employees, agents, consultants, contractors or subcontractors and shall survive the termination or expiration of this lease; provided, however, this indemnity shall not pertain to any such Contamination in any way associated with the activities of Lessor, its agents or contractors related in any way to the landfill operated on the Leased Lands.

(f) In the event that any investigation, site monitoring, containment, cleanup, removal, restoration or other remedial work of any kind or nature (the "Remedial Work") is reasonably necessary under any applicable local, state or federal law or regulation, any judicial order, or by any governmental or non-governmental entity or person because of Lessee's operations, or in connection with Lessee's operations, the current or future presence, suspected presence, release or suspected release of a hazardous substance into the air, soil, groundwater, surface water or soil vapor at, on, about, under or within the Leased Land (or any portion thereof), Lessee shall within the time provided by applicable law, regulation, order or agreement and if none then within thirty (30) days after written demand for performance thereof by Lessor, commence to perform, or cause to be commenced, and thereafter diligently prosecuted to completion, all such Remedial Work. All Remedial Work shall be performed by one or more contractors, approved in advance in writing by Lessor and under the supervision of a qualified consultant approved in advance in writing by Lessor. All costs and expenses of such Remedial Work shall be paid by Lessee including, without limitation, the charges of such contractor(s) and/or the qualified consultant, and Lessor's reasonable attorney's fees and costs incurred in connection with monitoring or review of such Remedial Work. In the event Lessee shall fail to timely commence, or cause to be commenced, or fail to diligently prosecute to completion, such Remedial Work, Lessor may, but shall not be required to, cause such Remedial Work to be performed and all costs and expenses thereof, or incurred in connection therewith, shall become part of Lessee's obligations under this

Lease. Nothing herein contained shall be construed to impose obligation upon Lessee pertaining to the operation of the landfill located on the Leased Premises by or on behalf of Lessor.

(g) Lessor is authorized by itself, its agents, employees or workmen to enter at any reasonable time with at least 24 hour notice to Lessee upon any part of the Leased Land for the purposes of inspecting the same for hazardous substances and Lessee's compliance with this Paragraph and such inspections may include, without limitation, subsurface soil or water sampling and/or analysis. Any such testing shall be conducted at Lessor's sole risks and expense and Lessee shall not be responsible for any costs in connection with the foregoing. Any such testing shall not occur more frequently than once every five years.

(h) Nothing in this Paragraph 22 shall limit any rights of Lessor or obligations of Lessee under this Lease, but shall be in addition to all such rights and obligations.

23. Keeping and Inspection of Records.

23.1. **Well Data.** Lessee shall provide Lessor's attorney, without charge, all geologic and well information set forth in Exhibit "B" attached hereto and made a part hereof for any wells drilled upon the Leased Land or lands pooled therewith and all data and information (geological and otherwise) obtained by Lessee in the course of its drilling, development and producing operations on the Leased Land or lands pooled therewith having to do with the mechanical histories of wells, the thickness, character and content of the formations penetrated and the amount and kind of production obtained, including but not limited to, the following: all logs, electric logs, electric surveys, directional surveys, well histories, core records, daily or weekly drilling reports, well completion reports, notices and reports to the Division of Oil, Gas and Geothermal Resources or other public authority and all replies, responses or comments thereon by said Division or authority, detailed fossil assemblage in each well bore, oriented cores, dipmeter and directional survey data, records of core analyses and of results obtained in all formation tests, potential tests, water witch runs and pressure determinations, and all other factual data or information in any way relating to subsurface conditions, and also all production records relating to the quantity or nature of the production obtained from wells on the demised premises or lands pooled therewith and, upon request, analyses in the possession of Lessee of the hydrocarbons produced. Such production records shall be furnished to Lessor at least as often as once each month. Lessee shall keep Lessor promptly and fully advised in writing as to the extent, nature and progress of all work on the demised premises or lands pooled therewith. The foregoing requirements of this section shall not be construed to require Lessee to develop any data or information but only to require Lessee to make available whatever data or information may come into its possession, except that Lessee shall run at least one (1) electric log to as near total depth as is practicable in each well drilled by Lessee on the Leased Land or lands pooled therewith.

Lessor agrees to assert confidential status for all such information not otherwise in the public domain under the California Public Records Act and as attorney-client privileged information for a period of three (3) years from the date of receipt thereof. Upon request, Lessee shall advise Lessor fully as to the progress of all work upon the Leased Land. Nothing in this provision shall be construed as authorization to receive interpretative data.

23.2. **Copies of Lessee's Contracts.** Within thirty (30) days after entering into any contract or agreement for the treatment, processing, extraction, transportation, sale or delivery of any hydrocarbons produced from the Leased Land or lands pooled therewith (excepting contracts for the refining of oil), or any amendment, modification, extension or renewal of any such contract or agreement, Lessee shall deliver a copy of it to Lessor. Notwithstanding the foregoing, sales of production for periods not exceeding one (1) year shall be provided only upon written request of Lessor.

23.3. **Records and Accounts.** Lessee shall keep true, full and correct books of account, showing its account of the production of oil, gas and other hydrocarbon substances from the Leased Land or lands pooled or unitized therewith, and shall maintain such records for the term of this Lease and for three years thereafter. Such books, together with all other records of Lessee relating to the performance by Lessee of the covenants hereof, shall be open for audit, copying and inspection by Lessor or its agent at all reasonable times throughout such period. Lessee shall furnish Lessor monthly written statements of the total production from the Leased Land or lands pooled or unitized therewith and the deliveries of oil, gas or other hydrocarbons therefrom during the preceding calendar month and the royalties payable in respect thereto and the data upon which the amount of such royalties is computed, and also copies of the run tickets covering such deliveries.

23.4. **Records of Division of Oil, Gas and Geothermal Resources**. Lessee hereby authorizes Lessor its representatives or agents, to examine and take copies of all records of the Division of Oil, Gas and Geothermal Resources of the State of California (including all officers, deputies and agents thereof) and all records of any other public authorities relating to any wells drilled upon the Leased Land or lands pooled therewith, including, but not limited to, all reports, records, notices and statements filed by Lessee. Lessor agrees to keep all such records, contracts and logs confidential if, to the extent, and during the period that they are on confidential status with the Division of Oil, Gas and Geothermal Resources. Except as to the foregoing confidentiality, Lessee hereby waives all restrictions now or hereafter imposed by statute or otherwise upon the use of such records by the Lessor as evidence in any litigation by or against Lessee.

23.5. **Statement to Lessor**. The receipt by Lessor of any statement, or any payment of royalty for any period, shall not bind Lessor or Lessee as to the correctness of the statement or payment. Lessor shall also be entitled, from time to time, to one or more independent audits of the records by a certified public accountant designated by Lessor for the purpose of determining compliance with this Lease. Such audit shall be conducted during usual business hours at Lessee's place of business within the State of California. If the audit shows that there is a deficiency in the payment of royalty, the deficient shall be immediately due and payable. The costs of the audit shall be paid by Lessor unless the final adjudicated or agreed audit shows that Lessee understated proper royalty payments to Lessor by more than ten percent (10%), in which event Lessee shall pay all costs of the audit.

23.6. **Inspection by Lessor**. Lessor, at its sole cost, risk and expense, shall have the right, without hindrance, (a) to enter upon the Leased Land and to examine the work done and in progress thereon and to take samples of production, (b) to inspect Lessee's works, tanks and appliances, and (c) to examine, gauge and meter any or all of the hydrocarbons produced from the Leased Land or lands pooled therewith. Lessor agrees to make a reasonable attempt to contact Lessee prior to entry onto Leased Land or lands pooled therewith for the purposes set forth above. Lessor shall indemnify Lessee from and against any claims, damages, awards arising by virtue of its exercise of the rights granted in this paragraph or paragraph 22 (g).

24. Lessor Option to Take Produced Water. Lessor shall have the option at any time and from time to time to elect by written notice to Lessee to take any quantity of produced water from wells operated by Lessee on the Leased Land at no charge to Lessor, but into storage facilities and/or pipeline to be provided by Lessor and not required or useful by Lessee for its operations on the Leased Land or lands pooled therewith for Lessor's use or treatment and use.

25. Lessor's Option to Purchase. Lessor shall have the option, exercisable within the first one hundred eighty days of the twenty-fourth (24th) year of this Lease if it is then still in effect, exercisable by written notice from Lessor to Lessee, to purchase all of Lessee's right, title and interest in this Lease and in all wells thereon and operating equipment and pipelines associated therewith at the fair market value thereof.

26. Savings Provision. It is the intent of the Lessor that this lease is executed in accordance with its authority as a Charter Rule City and that the secondary term as stated herein is in the best interest of the City, provided, however, in the event that the term of this lease, if any beyond the Primary Term, violates any law existing on the date of this lease or the City's Charter as it exists on the date of this lease with respect to the term of the lease, then this lease shall be automatically amended to provide that the secondary term shall in no event extend beyond the maximum term allowed by law.

27. Amendment. This Lease may be amended without further bidding; but only by mutual written agreement of the parties hereto.

28. Counterpart Execution. This Lease may be executed in multiple counterparts, all of which, taken together, shall constitute one single Lease.

LESSEE:	**LESSOR:**
MATRIX OIL CORPORATION	**CITY OF WHITTIER**
By:_____	By:_____
Signature (title)	Stephen W. Helvey, City Manager

_____
Printed Name

CLAYTON WILLIAMS ENERGY, INC.

By:_____
Signature (title)

_____
Printed Name

APPROVED AS TO FORM:

By:_____
City Attorney

Date:_____

EXHIBIT "A"

All of those lands located in the incorporated area of the City of Whittier acquired by the City of Whittier under the following Deeds:

1. Grant Deed from Mountains Recreation and Conservation Authority to the City of Whittier dated December 20, 1995, and recorded on December 26, 1995, as Instrument Number 95-2043171, Los Angeles County Official Records; and

2. Grant Deed from The Trust for Public Land to the City of Whittier dated September 20, 1995, and recorded on October 16, 1995, as Instrument Number 95-1666829, Los Angeles County Official Records.

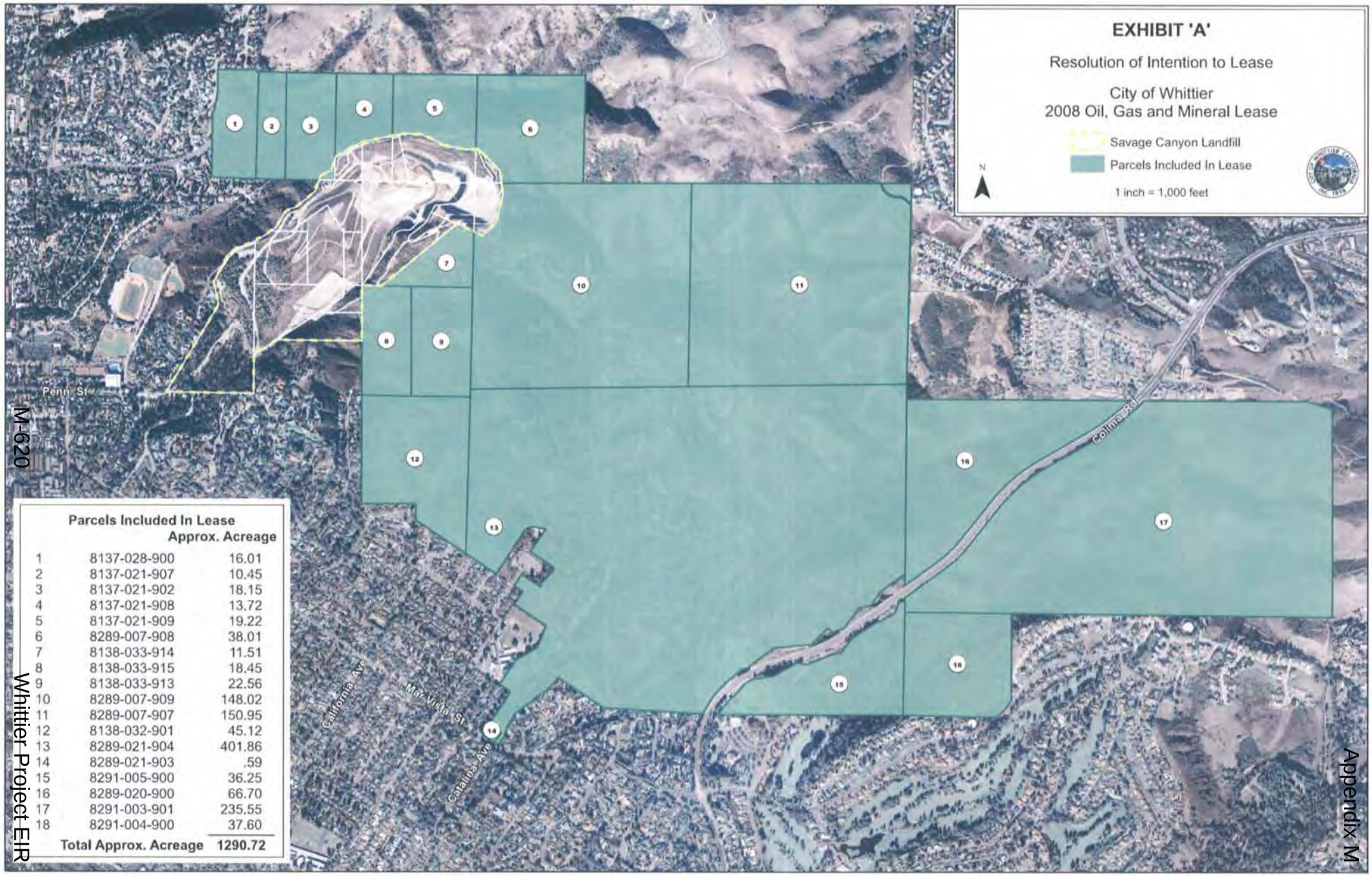
APN's:

1. 8137-028-900, Approximately 16.01 acres
   8137-021-907, Approximately 10.45 acres
   8137-021-902, Approximately 18.15 acres
   8137-021-908, Approximately 13.72 acres
   8139-021-909, Approximately 19.22 acres
   8289-007-908, Approximately 38.01 acres
   8138-033-914, Approximately 11.51 acres
   8138-033-915, Approximately 18.45 acres
   8138-033-913, Approximately 22.56 acres
   8289-007-909, Approximately 148.02 acres
   8289-007-907, Approximately 150.95 acres
   8138-032-901, Approximately 45.12 acres
   8289-021-904, Approximately 401.86 acres
   8289-021-903, Approximately 0.59 acres
   8291-005-900, Approximately 36.25 acres
   8291-004-900, Approximately 37.60 acres

2. 8289-020-900, Approximately 66.70 acres
   8291-003-901, Approximately 235.55 acres

Total Approximate Area 1290.72 acres

{00907522.2}



Parcels Included In Lease		Approx. Acreage
1	8137-028-900	16.01
2	8137-021-907	10.45
3	8137-021-902	18.15
4	8137-021-908	13.72
5	8137-021-909	19.22
6	8289-007-908	38.01
7	8138-033-914	11.51
8	8138-033-915	18.45
9	8138-033-913	22.56
10	8289-007-909	148.02
11	8289-007-907	150.95
12	8138-032-901	45.12
13	8289-021-904	401.86
14	8289-021-903	.59
15	8291-005-900	36.25
16	8289-020-900	66.70
17	8291-003-901	235.55
18	8291-004-900	37.60
Total Approx. Acreage		1290.72

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

NAME

MAILING ADDRESS

CITY, STATE ZIP CODE

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

Documentary Transfer Tax $_____
___ Computed on value of interest conveyed.
___ Computed on value of interest conveyed less liens and encumbrances remaining thereon at time of sale.
___ No property transfer tax due.

By:_____

OIL, GAS AND MINERAL LEASE
(SHORT FORM)

THIS LEASE AND AGREEMENT, made and entered into this 28th day of October, 2008, by and between the **CITY OF WHITTIER**, a charter municipality of the State of California, hereinafter called "Lessor", and Matrix Oil Corporation, a California corporation (as to an undivided 25%), and Clayton Williams Energy, Inc., a Delaware corporation (as to an undivided 75%), hereinafter called "Lessee".

WITNESSETH:

Lessor hereby leases to Lessee and Lessee hereby leases from Lessor the land hereinafter described, for the purposes and with the exclusive right of prospecting, exploring by geological, geophysical, and all other methods, mining, drilling and operating said land for oil, gas, other hydrocarbons, associated substances, sulphur, nitrogen, carbon dioxide, helium, and other commercially valuable substances* which may be produced through wells on said land, similar to the above mentioned substances. The land hereby leased is situated in Los Angeles County, California, and is described as follows:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

and containing 1280.00 acres, more or less, hereinafter referred to as "said land."

*except for water and geothermal resources

This lease is made for the term and upon and subject to each and all terms, provisions, covenants and conditions set forth in the certain Oil, Gas and Mineral Lease of even date herewith between the parties hereto covering the land hereinabove described, and said Oil, Gas and Mineral Lease is hereby incorporated herein with the same force and effect as though herein set forth at length.

IN WITNESS WHEREOF, said parties have caused this lease to be duly executed at the date first hereinabove written.

LESSOR:

CITY OF WHITTIER

By:_____
Stephen W. Helvey, City Manager

APPROVED AS TO FORM:

By:_____
City Attorney

Date:_____

LESSEE:

MATRIX OIL CORPORATION

By:_____
Its:_____

CLAYTON WILLIAMS ENERGY, INC.

By:_____

Its:_____

29

ALL-PURPOSE ACKNOWLEDGMENT FOR CALIFORNIA

STATE OF CALIFORNIA)
) ss.
COUNTY OF _____)

On _____, 2008, before me, _____,
Date — Name And Title Of Officer (e.g. "Jane Doe, Notary Public")

personally appeared _____,
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

_____
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other: _____

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____

_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number Of Pages

_____
Date Of Document

_____
Signer(s) Other Than Named Above

EXHIBIT "A"

All of those lands located in the incorporated area of the City of Whittier acquired by the City of Whittier under the following Deeds:

1. Grant Deed from Mountains Recreation and Conservation Authority to the City of Whittier dated December 20, 1995, and recorded on December 26, 1995, as Instrument Number 95-2043171, Los Angeles County Official Records; and

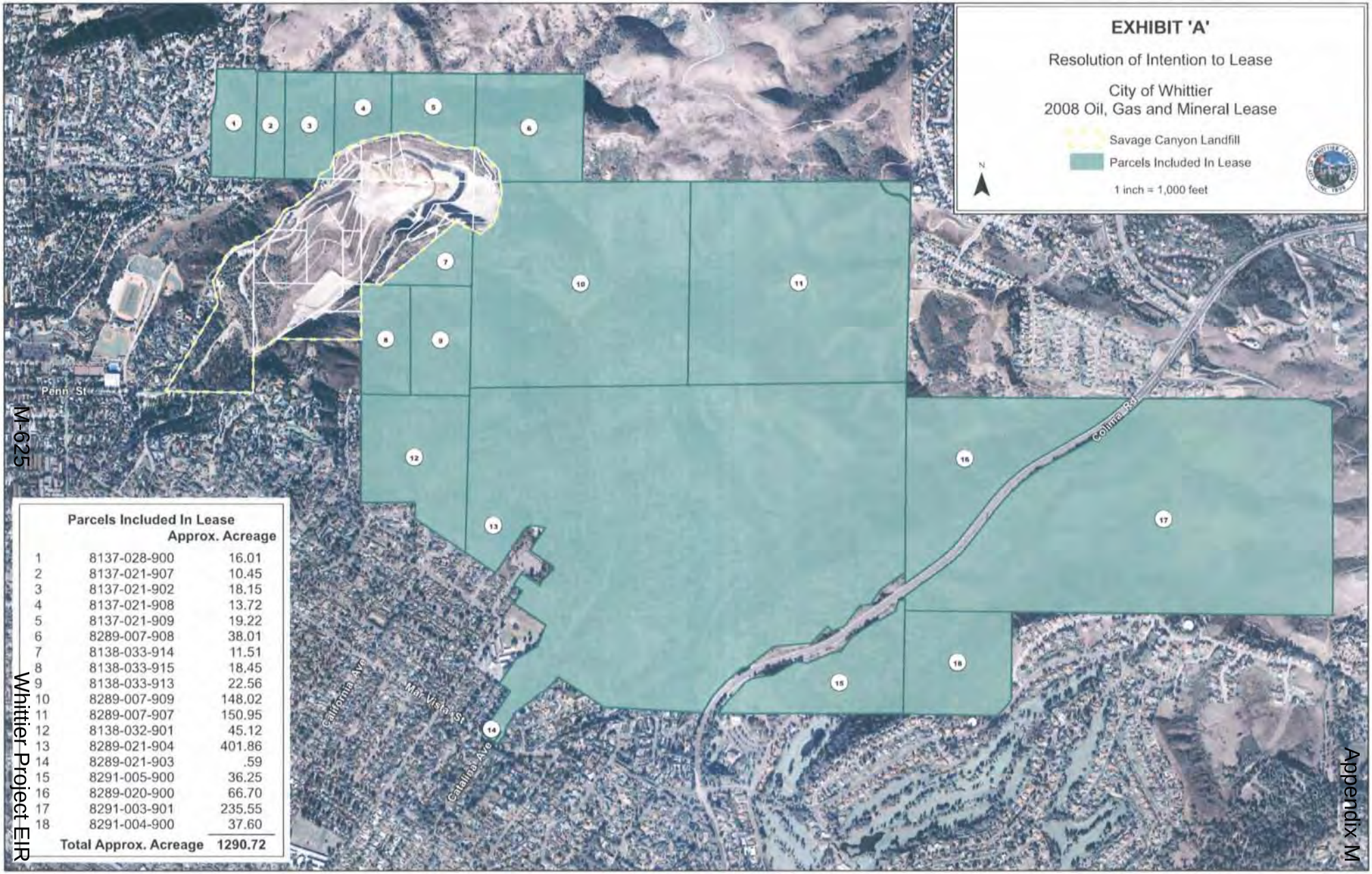
2. Grant Deed from The Trust for Public Land to the City of Whittier dated September 20, 1995, and recorded on October 16, 1995, as Instrument Number 95-1666829, Los Angeles County Official Records.

APN's:

1. 8137-028-900, Approximately 16.01 acres
   8137-021-907, Approximately 10.45 acres
   8137-021-902, Approximately 18.15 acres
   8137-021-908, Approximately 13.72 acres
   8139-021-909, Approximately 19.22 acres
   8289-007-908, Approximately 38.01 acres
   8138-033-914, Approximately 11.51 acres
   8138-033-915, Approximately 18.45 acres
   8138-033-913, Approximately 22.56 acres
   8289-007-909, Approximately 148.02 acres
   8289-007-907, Approximately 150.95 acres
   8138-032-901, Approximately 45.12 acres
   8289-021-904, Approximately 401.86 acres
   8289-021-903, Approximately 0.59 acres
   8291-005-900, Approximately 36.25 acres
   8291-004-900, Approximately 37.60 acres

2. 8289-020-900, Approximately 66.70 acres
   8291-003-901, Approximately 235.55 acres

Total Approximate Area 1290.72 acres



Parcels Included In Lease		Approx. Acreage
1	8137-028-900	16.01
2	8137-021-907	10.45
3	8137-021-902	18.15
4	8137-021-908	13.72
5	8137-021-909	19.22
6	8289-007-908	38.01
7	8138-033-914	11.51
8	8138-033-915	18.45
9	8138-033-913	22.56
10	8289-007-909	148.02
11	8289-007-907	150.95
12	8138-032-901	45.12
13	8289-021-904	401.86
14	8289-021-903	.59
15	8291-005-900	36.25
16	8289-020-900	66.70
17	8291-003-901	235.55
18	8291-004-900	37.60
Total Approx. Acreage		1290.72

EXHIBIT I

EMAIL FROM ANDREA GULLO, EXCUTIVE DIRECTOR OF THE HABITAT AUTHORITY TO JONATHAN SNYDER OF THE USFWS, JANUARY 13, 2010, AND ATTACHED MITIGATION MEASURES

MARCH 2, 2009 EMAILS BETWEEN MATRIX AND THE CITY REGARDING GEOLOGICAL TESTING IN THE PRESERVE

"Andrea Gullo" <agullo@habitatauthority .org >
12/13/2010 05:08 PM

To <Jonathan_D_Snyder@fws.gov>
cc
bcc
Subject boring

Jonathan –

Per your request attached are measures put in place to regulate the test boring – They did this twice once in 2009 and again in 2010 – each time they disturbed less than ½ acre (probably) – and work was conducted outside of the nesting season. To the best of our knowledge they have adhered to these measures – Shannon Lucas our Ecologist has been monitoring them. Let me know if you have any other questions. The impacts were negligible in our opinion.

Andrea

Andrea Gullo
Executive Director
Habitat Authority
562.945.9003
www.habitatauthority.org

Matrix Access Permit-soils geotech mitigation measures.pdf

OIL EXPLORATION AT THE FORMER CHEVRON PROPERTY GEOLOGY STUDY MITIGATION MEASURES

The following list of mitigation measures are presented to address specific impacts from proposed geology study activities as described in the attachment from Heathcote Geotechnical dated September 11, 2009 associated with the proposed oil extraction project. All mitigation measures would be implemented by Matrix Oil unless otherwise specified, in coordination with the City of Whittier and the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority)

Habitat Mitigation/Restoration Measures

Given that the proposed oil extraction project has not been approved, and therefore associated mitigation measures are not certain to be implemented, impacts from geology study activities must be addressed as potentially permanent in the event that the oil project is not approved. Therefore, the following two-pronged approach is presented to mitigate for habitat impacts from the geology study activities.

1. To be implemented regardless of subsequent Oil Project approval

Immediately following geology study activities (within one week) all exposed soil shall be stabilized if necessary using erosion control measures (such as jute netting, fiber rolls, etc.). Erosion control materials will be removed by the applicant when the impact areas have been revegetated to the satisfaction of the Habitat Authority or when oil exploration disturbance activities commence.

All impact areas (soil excavation, soil stockpile areas, cleared vegetation for equipment access) shall be seeded with a native seed mix (to be coordinated with the Habitat Authority) at the start of the rainy season (November-December) immediately following geology study activities. The native seed mix shall be purchased from S&S Seed which has contracted with the Habitat Authority to collect and store native seed from the Preserve (as the time constraints of this project do not allow for adequate native seed collection by Matrix). If geology study activities borings occur after December 31, seeding must occur the following Fall/Winter (between Oct. 15 and Dec. 31). Seeded impact areas will be monitored for erosion and invasion of noxious weeds every six months for a duration of 24 months.. Erosion repairs and removal of any observed noxious weeds shall be accomplished by the applicant. Monitoring shall continue until ultimate approval or denial of the Oil Project; if the project is denied, #2 below shall be implemented by the applicant.

2. To be implemented in addition to #1 if Oil Project is ultimately not approved

In addition to the above seeding, mitigation for permanent impacts to native vegetation shall require that the area be restored to the same type of native vegetation that existed prior to the impact. Mitigation for permanent impacts to non-native vegetation shall require that the area be restored to appropriate native vegetation. Restoration activities will be implemented by the

applicant and coordinated with the Habitat Authority, or implemented by the Habitat Authority through a fee payment by the applicant. Such restoration will include seeding, planting, irrigation and maintenance consistent with typical Habitat Authority restoration projects, and shall commence in late fall or early winter immediately following denial of the Oil Project.

Impact Prevention Measures

- Prior to geology study activities, all impact areas (study locations, soil stockpile locations, access routes) shall be flagged in the field and approved by the Habitat Authority. All sites shall be evaluated by a the Habitat Authority Ecologist for the presence of jurisdictional wetlands or waters, and Matrix will be advised how to avoid these areas. If these areas cannot be avoided then work shall be postponed until Matrix's hired biological consultant can obtain permits from regulatory agencies (Corps, CDFG, RWQCB).
- All noxious weeds within impact areas shall be removed and transported off-site in a manner that will prevent the dispersal of seeds from such plants into the adjacent habitats. Native vegetation removed from these sites can either be retained and used to cover the sites following study activities, or can be transported off-site.
- All vehicles and equipment shall be washed before entering the property in an effort to prevent the transport of weed species throughout the property. No washing shall be conducted on the Preserve. Vehicles do not need to be washed moving between the central site, west site or northwest site. After visiting the East site, vehicles need to exit the maintenance access off of Colima Road.
- Soil shall be excavated such that the top six inches of soil shall be stockpiled separately from deeper soils, such that when excavated sites are backfilled that topsoil can be placed at the surface. Topsoil has more nutrients and organic matter, which help facilitate revegetation; deeper, mineral-heavy soils would hinder vegetation establishment if placed near the surface during backfilling.

Other Measures

- All vegetation clearing shall be conducted outside of the nesting season (February 1 to August 31) to avoid impacts to nesting birds. This work is expected to occur within the months of September and October.
- Vehicle traffic shall be restricted to existing roads or pre-defined access routes through consultation with the Habitat Authority, and using approved equipment for specific areas.
- Speed limits will be imposed strictly on all construction-related equipment, and all other vehicles in support of operations.
- All geology study activities will be conducted during daylight hours.
- All excavated pits and trenches shall be filled or covered by the end of the work day so as to prevent accidental entrapment of wildlife.
- All vehicles on the property shall carry cell phones or two-way radios, fire extinguishers, and other emergency equipment. Refer to Liability Waiver signed by Matrix dated January 22, 2009 and signed on January 27, 2009 for details.
- All liter and debris should be promptly removed.
- No refueling of vehicles or equipment shall occur while on the Preserve.

- All geology study activities will be monitored by a biologist hired by the applicant to ensure compliance with these measures. The monitor will ensure that activities remain in staked areas, the soil is stock piled and replaced, and to answer any on site questions. **Alternatively**, Matrix can work with Shannon in staking four corners of the work areas and marking them all off with caution tape (including pit areas, stock piling areas, and travel routes). The areas will probably need to be broaden a bit to allow for the vehicle to move around in the taped off areas.
- Any damage to roads or property shall be repaired by Matrix.
- Conditions and applications in Liability Waiver signed by Matrix dated January 22, 2009 and signed on January 27, 2009 apply for this work even if conducted in 2010.
- At the East site, provide flag men at points on the trails near its boring or trenching activities to intercept and politely inform any member of the public about the trail closures or appropriate safety precautions. Agree that trails may be closed only on a temporary basis and no trails will be closed during the duration of the operation. At any of the sites, any staging to occur on the road will not block emergency vehicle access.

Sign below for acceptance of these measures

9/30/09

Matrix Oil Representative Date

HEATHCOTE GEOTECHNICAL

SOIL TESTING • FOUNDATIONS • INSPECTION

1884 EASTMAN AVENUE, SUITE 105,VENTURA, CALIFORNIA 93003

Michael McCaskey
Vice President/Director
Matrix Oil Corporation
104 W. Anapamu Street Suite C
Santa Barbara, Ca 93101

Job: 09020
Date: September 11, 2009

Ladies/Gentlemen:

Subject: Scope of remaining field work-comprehesive soils and geology studies

Site: Petroleum drilling and extraction facilities
Whittier, California

We have been presented the grading plans for the proposed development. We have been asked to present the field work needed to finalize our soils investigation. Listed below is the scope of work.

Equipment

Backhoe with 24 inch bucket

Pits are approximately 20 by 2 feet in plan view with a depth of approximately 10 feet.

Hollow stem auger is truck mounted with a 6 inch auger that creates a 6 inch diameter hole with a depth of 50 to 60 feet.

Central well pad

2 backhoe pits
1-50’ boring with 6 inch hollow stem auger

Locations:

One backhoe pit at the northwest corner of the pad

One backhoe pit along western side of the pad in the cut slope area

One hollow stem boring on the southeast corner of the pad

(805)644-9978 (805)963-9978 (805)496-5566 FAX:(805)644-9906

HEATHCOTE GEOTECHNICAL
SOIL TESTING • FOUNDATIONS • INSPECTION
1884 EASTMAN AVENUE, SUITE 105,VENTURA, CALIFORNIA 93003

Gas plant and process area

5 backhoe pits
1-60' boring with 6 inch hollow stem auger

Locations:

1 backhoe pit at western edge of 16 feet high retaining wall

1 backhoe pit at eastern edge of 16 feet high retaining wall.

1 backhoe pit at bottom of the 55 feet high cut slope at the northeast side of pad

1 backhoe pit at top of 55 feet high cut slope

1 backhoe pit at the northwest corner of the pad

1 hollow stem auger boring at top of 55 feet high cut slope

West well pad

5 backhoe pits
1 hollow stem auger

Locations:

One backhoe pit along proposed 16 feet high retaining wall at south side of the pad.

One backhoe pit along northern cut slope

One backhoe pit along southern cut slope

One backhoe pit in detention basin area at the very easternmost portion of the site

One backhoe pit near well pad

One hollow stem auger at north end of 16 feet high retaining wall at north side of pad.

(805)644-9978 (805)963-9978 (805)496-5566 FAX:(805)644-9906

HEATHCOTE GEOTECHNICAL
SOIL TESTING • FOUNDATIONS • INSPECTION
1884 EASTMAN AVENUE, SUITE 105,VENTURA, CALIFORNIA 93003

East well pad

5 backhoe pits

Locations:

1 backhoe pit near shipping tank at western side of the well pad

1 backhoe pit at the fill slope at the southwest side of the well pad

1 backhoe pit near the well cellar

1 backhoe pit at bottom of the cut slope at the northeast side of the well pad

1 backhoe pit at the top of the cut slope at the northeast side of the well pad

Truck loading facility

1 backhoe pit

Location:

1 backhoe pit at the northeast side of facility at the cut slope

Northwestern well pad

5 backhoe pits

1 hollow stem auger

1 fault trench-150 to 200 feet long-2 feet wide-12 feet deep

Locations:

3 backhoe pits alongside road

2 backhoe pits about 50 feet east of road

1 hollow stem auger alongside road

Fault trench alongside road

(805)644-9978 (805)963-9978 (805)496-5566 FAX:(805)644-9906

HEATHCOTE GEOTECHNICAL

SOIL TESTING • FOUNDATIONS • INSPECTION

1884 EASTMAN AVENUE, SUITE 105,VENTURA, CALIFORNIA 93003

Timeline

It will take approximately 2 weeks to perform the work in the field.

Environmental disturbance

Every effort will be made to minimize disturbance to brush and plants.

Holes will be compacted with the backhoe bucket to minimize settlement.

It has been our pleasure to serve you and if you have any questions or need additional service, please contact us.

Fred Heathcote	Terry Mayer
Civil Engineer	Certified Engineering Geologist
RCE C48316	CEG 1373

(805)644-9978 (805)963-9978 (805)496-5566 FAX:(805)644-9906

RELEASE OF LIABILITY

By this release of liability agreement signed this 22nd day of JANUARY 2009, the following party Matrix Oil to this release of liability agreement agrees to unconditionally release and discharge the City of Whittier and the Puente Hills Landfill Native Habitat Preservation Authority, a joint exercise of powers authority established pursuant to Government Code section 6500 et seq. (hereinafter Habitat Authority), and its Directors, Executive Director, officers, employees, agents, contractors and assigns, from and against any and all liabilities, losses, claims, demands, damages, judgments, attorney's fees and costs, actions, causes of action or suits of any kind or nature, and particularly on account of any injuries, known and /or unknown, both to person and property, arising out of the use of Habitat Authority's property or participation in the event or activity to take place on property owned and/or managed by the Habitat Authority by the undersigned for the following: Site visit on Wednesday January 28, 2009 and subsequent site visits throughout 2009 for the research, processing and associated surveys and soil samplings in pursuit of a conditional use permit and environmental documentation for a project regarding oil extraction on the former "Chevron" and "Unocal" properties . The undersigned acknowledges that there are inherent risks, which are voluntarily assumed, involved in the use, activity and or event above described.

Matrix Oil and participants (such as subcontractors and agents) in activity agree to obey Habitat Authority site representatives, posted rules and attached rules (Exhibit A) at all times, and provide appropriate insurance coverage for the City of Whittier and the Habitat Authority adding these agencies as additional insured with commercial liability insurance and auto liability insurance in the amount of $2,000,000, and providing evidence of workers compensation insurance for its employees and all subcontractors.

(Both parties initial here if not applicable.) ____ ____

This release expressly extends to all claims, whether known or unknown. The undersigned expressly waive the protections of California Civil Code Section 1542 which provides as follows:

> A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor.

The undersigned acknowledge that by waiving the protection of Civil Code Section 1542 that he or she waives his or her rights under such statute. The undersigned acknowledge that he or she has read and understands this release of liability agreement.

Michael McCaskey 1/27/09

print name: Date

Page 1 of 1

12/03

Exhibit A

The following are owner-specified safety requirements:

a. No smoking is permitted on the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority) Property or managed Property (both herein referred to as Property), nor, is any open flame.

b. Contractor shall carry a cellular telephone or two-way radio at all times on the Property and neighboring property for emergency purposes.

c. Before entering the Property from the period from May 1 through November 15 or during any other high fire hazard time, Contractor must call the Ranger Services at (310) 858-7272, extension 227, or local Fire Department to make sure it is safe to enter the Property, and shall not enter if the fire department prohibits or advises against it or if rangers of the Habitat Authority prohibit entrance. Rangers may contact the supervisor of the Work and order that access be limited or prohibited due to extreme fire hazard.

d. If doing work other than driving on properties for transportation purposes, such as ground work or maintenance: Contractor must carry in each vehicle one serviceable round point shovel with overall length of not less than four feet and two 2 1/2 gallon pressurized water extinguisher or two five gallon pump type water extinguisher (Note: these pump extinguishers are not pressurized – so 2 would be needed), fully equipped and ready for use. A chemical type fire extinguisher is not sufficient to satisfy this requirement. If equipment is used that has the potential to spark, Contractor must take additional fire prevention measures such as having a truck with a sizable (200 gallon) water tank on site. Other precautions and requirements suitable to weather conditions may be imposed by rangers for fire safety.

e. Contractor is required to do everything reasonably possible to prevent fires in the conduct of its activities.

f. Contractor shall immediately report any fire discovered on or around the Restoration Property to the fire department.

g. All vehicles must be equipped with properly maintained catalytic converter exhaust systems and shall not park over tall grass. Vehicle exhaust systems shall be inspected daily at the start of each shift.

h. Motorized vehicles must remain on maintained roads.

i. Contractor must protect all natural water sources from pollution arising in connection with its entry onto the Property.

j. Contractor shall not disturb any vegetation on Habitat Authority owned/managed land. Appropriate mitigation will be required for disturbances.

k. No access is allowed 48 hours after a rain or longer until the trails are dry as determined by the rangers.

Contractor shall cause all subcontractors to comply with these owner-specified safety requirements.

6. Data To Be Furnished. Dates of expected Work to take place and name of Contractor (and if Contractor is using an un marked car, vehicle license plate numbers) must be furnished to rangers the day prior by calling Ranger Services (Kenn Hughes) (310) 858-7272, extension 227.

From: Mike Mccaskey [mmccaskey@matrixoil.com]
Sent: Monday, March 02, 2009 5:21 PM
To: Steve Helvey
Cc: David Pelser; Jeff Adams; Andrea Gullo; LToth@prou.com; mac@mcfarl.com; Jeff Collier
Subject: RE: Matrix Test Pit/borings

We will be happy to turn the project over to the City. Just let us know. We have picked the firm that did the geotechncal study of Montebello. I will speak to Andrea to get advice.

Mike

From: shelvey@cityofwhittier.org [mailto:shelvey@cityofwhittier.org]
Sent: Monday, March 02, 2009 5:10 PM
To: mmccaskey@matrixoil.com
Cc: dpelser@whittierch.org; jadams@whittierch.org; agullo@habitatauthority.org; LToth@prou.com; mac@mcfarl.com; jcollier@whittierch.org
Subject: RE: Matrix Test Pit/borings

Mike.....actually, it might be cleaner if we do the work instead of you and don't run afoul of the people who we promised that we won't let you on site to do any work until the CUP is approved.
Steve

From: Mike Mccaskey [mailto:mmccaskey@matrixoil.com]
Sent: Monday, March 02, 2009 4:51 PM
To: Steve Helvey
Cc: David Pelser; Jeff Adams; Andrea Gullo; 'Les Toth'; mac@mcfarl.com
Subject: RE: Matrix Test Pit/borings

Steve:

I believe that Andrea Gullo has the field program from the Geotechnical team (attached).

It involves taking shallow borings to write up a report that describes the types and condition of soil at the site and whether it is suitable for future building.

I don't know about trenching. We can tell the field crew to not trench. I think the crew stated that if we need to verify if a fault is present then trenching is a method to do so.

We would not like to miss the deadline to get an application submitted.

What needs to happen to allow us to proceed?

From: shelvey@cityofwhittier.org [mailto:shelvey@cityofwhittier.org]
Sent: Monday, March 02, 2009 4:41 PM
To: mmccaskey@matrixoil.com; jadams@whittierch.org; mac@mcfarl.com
Cc: jcollier@whittierch.org; dpelser@whittierch.org; blee@whittierch.org; agullo@habitatauthority.org; LToth@prou.com
Subject: RE: Matrix Test Pit/borings

Great. Thanks

From: Mike Mccaskey [mailto:mmccaskey@matrixoil.com]
Sent: Monday, March 02, 2009 4:40 PM
To: Steve Helvey; Jeff Adams; mac@mcfarl.com
Cc: Jeff Collier; David Pelser; Brian Lee; Andrea Gullo; 'Les Toth'
Subject: RE: Matrix Test Pit/borings

Steve:

I will check with the team.

We have a list of requirments from Jeff Adams (requirment #5 plus others) dated January 21, 2009 that set up the requirements needed from us to submit to the City staff relative to the CUP application for the oil project. The City requested 5 copies of a geotechnical report.

Mac has had meetings with City staff and we thought that we were on board to do work relative to what the City needed to fulfill our requirement of submittal on time.

Mac is travelling and I will check with him later today or tomorrow. We have field work scheduled and will put things on hold.

The geotechnical study assesses soil conditions at the proposed sites which include shallow soil sampling.

Mac wil check in and advise us on how to proceed.

Thanks.

Mike

From: shelvey@cityofwhittier.org [mailto:shelvey@cityofwhittier.org]
Sent: Monday, March 02, 2009 4:22 PM
To: mmccaskey@matrixoil.com; jadams@whittierch.org; mac@mcfarl.com
Cc: jcollier@whittierch.org; dpelser@whittierch.org; blee@whittierch.org; agullo@habitatauthority.org
Subject: RE: Matrix Test Pit/borings

Mike.....we've always been very sensitive about on site work. We've talked about seismic tests but we never specifically thought that you'd need geotechnical studies for the EIR. Did Jo Ann actually tell you that we wouldn't process your CUP application without soils tests? Seems kind of odd to me.
Steve

From: Mike Mccaskey [mailto:mmccaskey@matrixoil.com]
Sent: Monday, March 02, 2009 4:20 PM
To: Jeff Adams; mac@mcfarl.com
Cc: Steve Helvey; Jeff Collier; David Pelser; Brian Lee; Andrea Gullo
Subject: RE: Matrix Test Pit/borings

Jeff:

Mac can better explain but the City's representative consultant asked us to initiate a geotechnical study as part of the EIR /CUP application (JoAnn). Mac will meet with you to discuss.

Thanks.

Mike

From: jadams@whittierch.org [mailto:jadams@whittierch.org]
Sent: Monday, March 02, 2009 4:14 PM
To: mac@mcfarl.com
Cc: shelvey@cityofwhittier.org; jcollier@whittierch.org; dpelser@whittierch.org; blee@whittierch.org; agullo@habitatauthority.org; mmccaskey@matrixoil.com
Subject: Matrix Test Pit/borings

Hi Mac,
I spoke with Andrea Gullo who relayed a conversation the two of you had regarding do some test drilling and pit excavations. I've spoken with both Jeff Collier and David Pelser about the initial process (as well as Steve Helvey via email) and apparently there isn't any prior agreement that would allow that type of testing. Consequently I need to ask you to hold off on any physical activity until we can gather some additional information about the process and see if that will be acceptable to the City.

David Pelser offered the following input relative to information we would need to even begin considering that type of activity.

It will not be possible to complete a proposed project design, CUP Application, and CEQA review without some geotechnical information, usually obtained from shallow borings.

I still think it would be appropriate for the City and HA to consider a proposed geotechnical investigation under the "surveying purposes" language in the lease agreement. The burden will be on Matrix to explain why the specific proposed scope of field investigation is necessary for the CUP application and to include in their proposed scope how the impact to existing surface conditions will be minimized and restored including proper disposal of any materials generated in the investigation.

I'd be happy to discuss the issue with you, or to set up a meeting to include the other players in the discussion. However, at this point pleawe do not proceed with any of the on-site work until we can get this straightened out.
Thank you.

Jeffery S. Adams
Planning Services Manager
City of Whittier
13230 Penn Street
Whittier, CA. 90602
562.464.3380 Voice
562.464.3509 Fax
jadams@cityofwhittier.org

3

EXHIBIT J

MATRIX FUEL STATEMENTS, ETC.: HTTP://WHITTIEROIL.COM/ENVIRONMENT-TECHNOLOGY

Appendix M

Whittier Main Field oil project

Environment & Technology

Matrix has completed an evaluation of historic well records in the City Lease area. The area (1290 acres) was formerly known as the Chevron Whittier Main Field. Approximately 500 wells were analyzed with Petra and GoCad geologic evaluation software to create a 3D representation of the occurrence and distribution of oil and gas under the City Lease and in the vicinity of the Lease. The data analysis includes a review of amounts of oil, natural gas and formation water produced from wells.

The evaluation has allowed for a plan to be developed to target new well locations for drilling and to return the field area to a production status. Three-dimensional technology ("3D") involves the use of all seismic, surface geology and subsurface well data that is loaded into software that is used to project information to a visual look of the subsurface that includes all rock layers and oil or gas occurrence. The 3D look is similar to a medical scan in that images are projected to a computer screen that allows technicians to "visualize" what the subsurface geology looks like in order to plan where to drill or to view how current wells are pulling oil or gas out of the ground.

Matrix has proposed to drill three initial test wells. From the information gained from those wells Matrix would construct facilities to allow for more drilling to return the Lease to levels in excess of 1000 barrels of oil per day. Historically most of the oil recovered by Chevron was from shallow zones with wells that were drilled vertically (3000 feet or less).

Lots of oil has been produced since the '90's a few miles east of town

The Matrix proposed project will have wells drilled from well pad approximately one-acre each in size in which up top 20 wells will be drilled from each pad that are angled away from the pad at high angles under the Lease to encounter oil layers over

distances in excess of 4000 feet from the drill site. The wells would be placed underground with no visible surface marking as compared to the historic standards of wooden derricks or pumping units located above ground. The picture attached is of a Matrix site that has 18 wells located underground.

Consolidation Technology

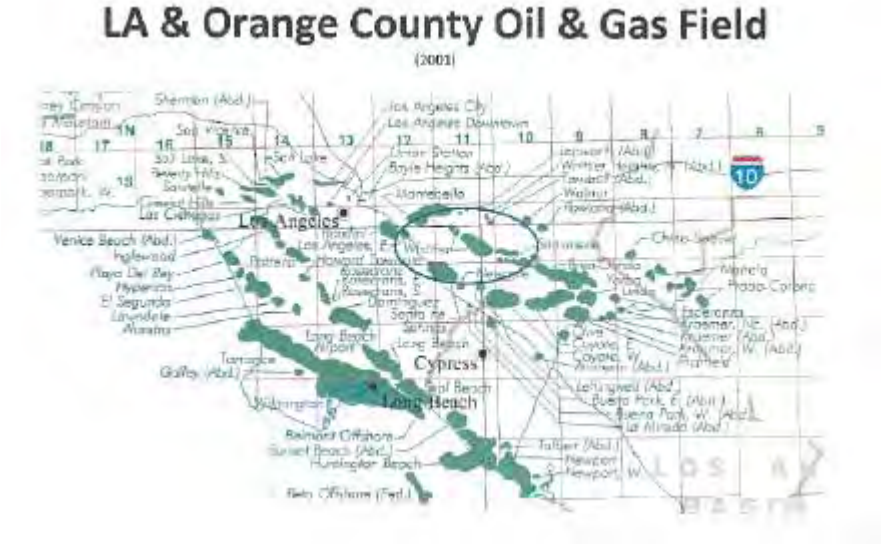
Matrix has planned to develop the City Lease of 1290 acres from an area of approximately 7 acres. This technology of consolidated facilities is used in operations in urban areas to minimize impact to the surroundings. The technology was developed for offshore platforms that place equipment and drilling materials in a small space. The drill and production sites are to have all equipment located to an area of about one acre at each of the three proposed drilling locations. This allows for all tanks, wells located underground, piping, pumps and storage equipment to be optimally placed to reduce impact to the surrounding area.

The attached site is an approximate one-acre site that has underground piping, a 10-foot perimeter brick sound-wall, a sound-paneled rig on location and a well cellar with approximately 20 wells.

A tank storage and gas processing facility of approximately 3 acres in area will be centrally located within the Lease. The project has been designed on the Lease to use existing roads from historic operations and to place a new road to allow for service access from sites to the major 4-lane street near the property (Colima Avenue). The sites will be surrounded by sound walls and will have vertical sound-panels placed in position to both shield views of equipment and to house equipment in sound-muffling layers.

Many details about the project are in an analysis by City of Whittier staff.

There are many oil and gas fields in the Los Angeles and Orange County areas. Matrix is in the process of studying different practices of sound-proofing in order to apply the most logical and suited methods for the project proposed to the City.



For many residents it comes as a complete surprise that oil fields and wells are located underground near urban areas. In the proposed Matrix project no wells will be located above ground after the initial test period and the initial 3 wells will also be located in a well cellar. Please see various examples of urban Los Angeles production facilities.

Sound Reduction Technology

Modern facilities all over the United States employ sound wall and sound-paneling to reduce noise that emanates from machinery on-site. The Matrix project will have facilities that have the following:

Sound-walls built to 15 feet high that surround each site;

Sound panels placed on engines and machinery that generate high levels of noise;

Vertical and portable sound walls that can be moved to position around temporary equipment;

Sound-panels attached to some parts of drill and service rigs that will muffle sound from pipe and engines.

There are many technologies available today to combat sound from industrial sites. We will be working with local firms to achieve the goal of zero-impact to the surrounding neighborhoods and Habitat ecology. Please see the link to learn more about technologies we will be using at this project.

Horizontal Well Technology

Many advances have been made in oil field technology in the last 20 years. One of the impressive advances is in drilling technology that allows for the drilling of long-reach wells up to 10 miles away from a central point. Typically distances away from a central point or pad range from one to three miles. This allows many wells to be drilled from one point and thus minimize impact to the surrounding areas.

Our project proposes to drill up to 60 wells to fully develop the City Lease. This will be done with up to 3 sites. Due to modern engineering to include better drill equipment the time it takes to drill wells has been dramatically reduced from historic standards of wells drilled in the 1950s to 1970s. All of the proposed Matrix wells will be high-angle and long-reach wells. Please see the attached link to learn more about high-angle drill technology.

Environment, Health and Safety

There are no shortcuts when it comes to safety. Matrix is dedicated to maintaining the highest standards of safety and environmental safeguards in its operations.

Matrix works closely and collaboratively with all City, County and State agencies or departments to ensure compliance with regulations and to optimize operations that will minimize impact to properties that surround our leases.

We have developed close working relationships with all relevant local and State agencies:

LA County Fire Department to clear brush in the Sycamore Canyon of the Puente Hills Habitat

City of Whittier Public Works Department for annual / semi-annual production site inspections to ensure compliance with all permitted activity

The Gas Company on data relative to gas pipeline product quality to verify compliance with consumer standards

South Coast Air Quality Management District on emission quality controls

LA County Sanitation District for water disposal standards

State of California Division of Oil, Gas and Geothermal Resources on inspections to maintain required standards of site quality and operations impact.

Matrix is dedicated to improving its sites and the environment around its sites. Matrix invested more than $4 million to rectify the impacts caused by an independent contractor accident that resulted in a one-day fire inside the well cellar at the Honolulu Terrace site.

We collaborated with our neighbors and City of Whittier officials to implement advanced safety standards of our operation, rebuilt all key systems, and re-landscaped the area with approved native plants. Procedures have been implemented company wide to prevent another vendor accident and projects to improve the sites as implemented in 2005 continue to this day.

Since 2006 Matrix has been working with the California Department of Fish and Game Department, the US Army Corps of Engineers, the LA Regional Water Quality Control Board and the Puente Hills Landfill Native Habitat Preservation Authority to design and permit a project along the Sycamore Canyon creek within the Habitat area. The goal is to control vegetation along the creek, remove non-native plants, remove debris in the creek to improve creek flow, replace an old creek crossing that has become clogged and is severely impacting stream water quality, and halt creek erosion.

In 2006 Matrix initiated a project at its City of Bakersfield sites to replace old equipment and tanks in order to improve the visual quality of its sites and significantly improved sound proofing to such a high level that the State of CA awarded Matrix a "Clean Site" Award in 2008 for excellence in site compliance and improvement in operations.

Anticipated Projects on the Whittier City Lease Project

The Matrix project to drill and develop the City lands will involve implementation of many safety and environmental protection projects. Matrix expects to work closely with ecologists under contract and in employment with the Puente Hills Native Habitat Preservation Authority. At present Matrix will be involved with the following:

Fire Protection – all sites will have a buffer of 50 feet or more of cleared brush from fences or perimeter walls;

Fire Protection – all sites will have fire hoses and nozzles to be able to direct at any flash incidents;

Fire Protection – all sites will have auto-shut off technology in the event of needing to shut off wells remotely due to adverse conditions;

Fire Protection – all sites are to be surrounded by high concrete walls;

Run-off – all sites will be bermed to not allow water run-off from rain;

Recycling – all sites will have complete recycling of all waste materials;

Recycling – all sites will be underlain with concrete or similar material to protect the ground from any fluid spills;

Recycling – all materials used in drilling will be hauled in and hauled out for recycling;

Recycling – all formation water will be re-injected far underground back into zones that will reduce the need to truck water off site;

Dust prevention – all sites and roads are to be covered to not cause dust from activity;

Sound-proofing – all sites will employ electric motors or motors with sound-sources that have been covered in paneling;

Light-proofing – all lights will be shielded to reduce side-ways glare;

Land Mitigation – Matrix will be working on a current unspecified amount of Habitat land to restore native plants;

Ecology – Funds will be directed to the City staff for monitoring of impact to the local habitat.

Alternative use of resources – Matrix is exploring the use of produced formation water for use in the community as treated and recycled water for parks and recreation purposes. This would involve salt removal from the water.

Restoration – Funds will be directed to restore all lands should the project be terminated in the future for any current unforeseen reason.

What Whittier Residents are Saying about the Project

Appendix M

Project Analysis & Environmental Impact Report

EXHIBIT K

"MATRIX OIL CORPORATION ANNOUNCES SUPPORT OF CONSOLIDATED CENTRAL SITE IN WHITTIER", NOVEMBER 3, 2010, NASDAQ CMX GLOBENEWSWIRE

NASDAQ OMX | GlobeNewswire

Login Register

HOME SERVICES NEWSROOM ABOUT US CONTACT US

Search

Source: Matrix Oil Corporation

Matrix Oil Corporation Announces Support of Consolidated Central Site in Whittier

WHITTIER, Calif., Nov. 3, 2010 (GLOBE NEWSWIRE) -- After careful review of the independent Environmental Impact Report (EIR) for the Whittier Main Field project, Matrix Oil has announced its support for the "Consolidated Central Site" project alternative.

"We've reviewed all the site options presented in the EIR and it is abundantly clear that the Consolidated Central Site is the location that best minimizes impacts for the community and the environment," said Michael McCaskey, Executive Vice President of Matrix Oil Corporation.

In 2008, the City of Whittier awarded Matrix a lease for the resumption of oil and natural gas extraction from the Whittier Main Field site. The field is located on 7 acres of the Puente Hills Landfill Native Habitat Preserve, which is only 0.5% of the 1290 acres owned by the City.

"We found the EIR presented an irrefutable case for the Consolidated Central Site as the location that significantly reduces to less than significant impacts, such as traffic and sound, while also protecting Whittier's natural habitat and allowing the City to gain a tremendous source of new revenue," said McCaskey.

The EIR also presents for discussion two different routes that can be used to access the Consolidated Central Site – Colima Road and the existing landfill road.

"Matrix prefers the landfill road option. The landfill road is an existing road and using it to access our site would minimize impacts on quality of life and the environment," said McCaskey. "However, all options are still on the table and we will continue to work with the City and residents to understand which access point best addresses their needs."

Matrix plans to further outline their support for the development of the Consolidated Central Site in written comments to the City.

CONTACT: Englander, Knabe & Allen
Jennifer Forkish
(818) 641-6200

Other Company Press Releases

Whittier Chamber of Commerce Announces Endorsement of Whittier Main Field Oil Project - Mar 24, 2011 19:11 ET

Statement from Matrix Oil Corporation - Nov 4, 2010 09:30 ET

Matrix Oil Corporation Announces Support of Consolidated Central Site in Whittier - Nov 3, 2010 22:00 ET

Statement From Matrix Oil Corporation - Oct 7, 2010 13:52 ET

Related News

- ENERGY
- ENVIRONMENT

Blogging/Bookmarking

Blogger
Blog Search
Digg
del.icio.us
Facebook
Google Bookmarks
Newsvine
Reddit
StumbleUpon
Technorati
Yahoo MyWeb

Printer friendly format

XML MY Y! Google MY AOL MY MSN

Home | Services | Newsroom | About Us | Contact Us | Site Map
Sign up for New Membership | Job Opportunities

© 2011 GlobeNewswire, Inc. All Rights Reserved.

EXHIBIT L

FEBRUARY 24, 2011 WHITTIER DAILY NEWS ARTICLE: “WHITTIER OFFICIALS SAY ENVIRONMENTAL REPORT ON OIL DRILLING WON’T BE RECIRCULATED”

Whittier officials say environmental report on oil drilling won't be recirculated

By Mike Sprague, Staff Writer
Whittier Daily News

Posted:02/24/2011 05:35:11 PM PST

WHITTIER - The final environmental impact report on a proposal to drill for oil in the Whittier hills most likely will not have enough new information to warrant the document be recirculated publicly to solicit additional comments, city officials said.

Marine Research Services of Ventura is now analyzing the more than 1,000 comments made on the draft report that was released in October 2010.

"At this point we haven't seen the need to recirculate," said Jeff Collier, assistant city manager. "We're still looking at being able to release the responses to comments in April and to set a date for a Planning Commission hearing in May."

Councilman Bob Henderson said he talked to officials from Marine Research Services and they had told him the same thing.

"They feel there's nothing so far that they have found that was so badly done in the draft EIR that it needs to be redone and recirculated," Henderson said.

Still, Collier didn't rule out the possibility for reconsideration, saying he and others are reviewing the comments and the responses.

In addition, the city just hired the law firm of Meyers, Nave, Riback and Silver to provide advice on the environmental report and the public hearings.

If the city doesn't recirculate the report, it would be going against the request from a number of groups who filed comments asking for just that.

"For them to essentially say there's no new information, then that's discouraging," said David Cowardin, a member of the Citizens Technical Advisory Committee for the Puente Hills Landfill Native Habitat Preservation Authority.

"This would mean as far as I can see (the city) didn't feel it was necessary to provide new information that both the Habitat Authority and the (committee) wanted," Cowardin said.

The committee called for recirculation, saying the report was inadequate in that it didn't show how to mitigate the problems the oil project would cause for wildlife.

Cowardin said the oil-drilling area would be placed in the middle of a corridor where wildlife move through and the report needs to explain how those problems would be mitigated.

Heriberto "Eddie" Diaz, president of the Open Space Legal Defense Fund, also said he believes the report needs to be recirculated.

Diaz said there are a number of groups and government agencies that called for the document to be redone and recirculated.

In addition to the Habitat Authority's Citizen Technical Advisory Committee and his group, others calling for recirculation included Hills for Everyone, Los Angeles County, and the Sierra Club, Diaz said.

"These are all agencies with significant credentials," Diaz said. "If they ignore the comment letters, which are almost unanimous in calling for recirculation, I think that's a mistake on their part."

mike.sprague@sgvn.com

562-698-0955, ext. 3022

Close Window Send To Printer

EXHIBIT M

APRIL 13, 2011 WHITTIER DAILY NEWS ARTICLE: "WHITTIER CITY COUNCIL GIVES MATRIX OIL THREE MORE YEARS TO OBTAIN PERMIT FOR OIL DRILLING"

WHITTIER CITY COUNCIL AGENDA REPORT, APRIL 12, 2011 RECOMMENDING THE APPROVAL OF AN AMENDMENT TO MATRIX'S MINERAL LEASEHOLD.

AMENDMENT TO THE WITTIER MAIN 2008 MINERAL EXTRACTION OIL, GAS AND MINERAL LEASE, DATED APRIL 12, 2011.

whittierdailynews.com

Whittier City Council gives Matrix Oil three more years to obtain permit for oil drilling

By Mike Sprague, Staff Writer

Posted: 04/13/2011 06:04:41 PM PDT

WHITTIER - The City Council has given Matrix Oil Co. and Clayton Williams Energy Co. three more years to obtain a conditional-use permit to drill for oil in the Whittier hills.

Council members said Tuesday it was only fair to extend the lease because Matrix of Santa Barbara and Clayton Williams of Texas had agreed to submit an amended plan requiring a new environmental impact report and thus delaying the process.

"The lease would expire in October (28th) of this year," Councilman Bob Henderson said. "That's simply not going giving the applicant a fair chance to develop the project."

Despite the delay, council members said they favored the additional study.

"By doing it this way, we think we'll have a better project to study and make a decision on when it comes to us," Mayor Greg Nordbak said.

Opponents of the oil plan called on the council to use this opportunity to stop the project.

"The amended conditional-use permit should be rejected and further work on the project should be ended," said Whittier resident Anthony Martinez. "The lease gave three years. Obviously, that won't happen. The amended (permit) is Matrix's and the city's attempt to get around their own deadline."

Matt Berklehammer, a member of the Board of Directors of the anti-drilling Whittier Hills Oil Watch, said the project would be bad for the environment.

"If the council truly listened to the voice of the people they would heed the

appeal of the over 5,000 people asking the city to halt the project," he said.

But Henderson said the city can't just stop the project and say no to Matrix.

"If we take an applicant in this position, cut off discussion and not let them go forward, we'd be liable for millions of dollars in punitive damages," he said. "We'd be taking away a property right."

Whittier resident Orlando Terrazas questioned the amount of money - as much as $1 million - that has been spent on the project so far.

City Manager Steve Helvey said the amount is correct but, except for the $80,000 paid to Community Conservation Solutions of Los Angeles, all of it has been paid for by Matrix and Clayton Williams.

"That also will be true for the additional

Print Powered By FormatDynamics™

whittierdailynews.com

$325,000 to $350,000 that will be required for the new environmental impact report," Helvey said.

Roy McKee, vice president of Whittier Hills Oil Watch, questioned why Councilman Owen Newcomer last year opposed Proposition 23, a measure Texas oil companies supported that would have suspended California's climate-change policies.

"If you vote for the oil (project) where 75 percent of the lease is given to Clayton, a Texas energy company, your credibility is gone," McKee said.

Newcomer said the Whittier oil situation and Proposition 23 are different issues.

"Proposition 23 was about standards," he said. "Valero Oil Co. was seeking to end their requirement to meet standards. The choice was between dirty oil and clean oil."

But in Whittier case, there's an environmental impact report that will help the council determine if this is a desirable project, he said.

"The EIR is all about standards," he said. "I support the process."

mike.sprague@sgvn.com

562-698-0955, ext. 3022

Get a FREE ADT-Monitored Home Security System.*
(With $99 customer installation and purchase of ADT alarm monitoring services. See important terms and conditions below.)
Call Now! 1-877-835-8373
SECURITY CHOICE
ADT Authorized Company
ADT AUTHORIZED DEALER
*$99.00 Customer Installation Charge. 36-Month Monitoring Agreement required at $35.99 per month ($1,295.64). Form of payment must be by credit card or electronic charge to your checking or savings account. Offer applies to homeowners only. Local permit fees may be required. Satisfactory credit history required. Certain restrictions apply. Offer valid for new Security Choice - An ADT Authorized Dealer customers only and not on purchases from ADT Security Services, Inc. Other rate plans available. Cannot be combined with any other offer. **$100 VISA® Gift Card Offer: $100 VISA Gift Card is provided by Security Choice and is not sponsored by ADT Security Services. Requires mail-in redemption. Call 1-888-407-2338 for complete restrictions and redemption requirements.

Print Powered By FormatDynamics™

Agenda Report

Date: April 12, 2011

To: Honorable Mayor and City Council

From: Stephen W. Helvey, City Manager

Subject: Matrix Oil Conditional Use Permit Application

RECOMMENDATION

Staff recommends that the City Council:

1. Receive and file an update on the status of the original Conditional Use Permit (CUP) application submitted by Matrix Oil and their recent submittal of an amended CUP application; and
2. Consider an amendment to the Matrix mineral leasehold to allow it to remain in force during the longer processing period warranted by the amended CUP application.

BACKGROUND

In 2010, Matrix Oil Corporation submitted an application for a Conditional Use Permit (as required by the Whittier Municipal Code) to allow them to use lands in the City of Whittier to extract oil pursuant to the Mineral Lease granted to them by the City in October 2008.

The California Environmental Quality Act (CEQA) requires that the proposed project identified in the CUP application be subjected to a thorough assessment of its impacts on the environment in a number of areas. Using funds required of the applicant, the City hired Marine Research Specialists (MRS) to perform that environmental assessment for a fee of $645,159. The project assessment identified a preferred environmental alternative to the proposed project that the applicant has stated publically would be an alternative they would endorse.

Because of their interest in this project alternative, the City has been concerned that to proceed with Planning Commission and City Council review of the preferred environmental alternative might be premature since the alternate project would not have been as thoroughly reviewed and evaluated as the original project submitted with the CUP application. All involved felt that it was vital to subject any project being considered to the utmost review and scrutiny in a process as transparent as possible.

For that reason, after consulting the Council Subcommittee, staff advised the applicant that they should redefine their project and reapply for a CUP in a manner consistent with the Environmentally Preferred Alternative identified in the CEQA review. A reapplication would result in significant additional processing time and cost to the applicant, estimated to be between $250,000 and $300,000. However, City staff and the Council Subcommittee believed that these negative impacts would be more than

Agenda Item: 11.C

offset by having the proposal thoroughly vetted prior to consideration by the Planning Commission and City Council.

On April 6, 2011, the applicant amended their CUP application to propose a project consistent with the Environmentally Preferred Alternative identified as a part of the CEQA review.

DISCUSSION

The amended project application will assure that the applicants' proposal to pursue the Consolidated Central site with the Landfill Road will be thoroughly reviewed to determine its potential environmental impacts prior to consideration by the City. While not legally required, the application for an amended project and circulation of a revised Draft EIR assures maximum transparency to the project proposed by the applicant for all interested parties in the City of Whittier. City staff, environmental consulting team, and legal experts have reviewed the proposed amended CUP application and process for revising the Draft EIR with the City Council Subcommittee and a verbal report can further explain the importance of this modification to the CUP application, if desired by Council.

One of the unavoidable issues with this change in course is that the project will require additional processing time that will extend the ultimate date of consideration of the CUP and EIR by the Planning Commission and the City Council. This will in turn necessitate an extension to the Mineral Lease previously granted to the applicant by the City Council. Staff recommends that the City Council grant the proposed amendment for a period of three additional years to October 28, 2014, as a fair exchange for more extensive CEQA review (Attachment A). James Day, the City's oil and gas attorney, will be available to answer any technical questions that the City Council may have on the Mineral Lease Amendment.

FISCAL IMPACT

All costs to process the amended CUP application and prepare the revised Draft EIR will be borne by the applicant. Additional rental income from the Mineral Lease extension will be deposited to the City's General Fund.

Submitted by:

Stephen W. Helvey
City Manager

2 Attachment: A – Matrix Mineral Lease Amendment (Proposed Extension)

O:\Mel's Stuff\ar\CC 4-12-11 CUP Amendment.docx

AMENDMENT TO WHITTIER MAIN 2008
MINERAL EXTRACTION OIL, GAS AND MINERAL LEASE

This Amendment is entered into effective this 12th day of April, 2011 by and between the City of Whittier, a charter municipality of the State of California (hereinafter called "Lessor") and Matrix Oil Corporation, a California corporation (as to an undivided 25%) and Clayton Williams Energy, Inc., a Delaware corporation (as to an undivided 75%) (hereinafter collectively called "Lessee") in consideration of the covenants hereinafter set forth.

RECITALS:

A. Reference is made to that certain Oil, Gas and Mineral Lease dated October 28, 2008 by and between Lessor and Lessee (the "Lease").

B. Lessor and Lessee desire to amend the Lease in the manner hereinafter set forth.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Paragraph 1 of the Lease is hereby amended so as to delete the word and figure "three (3)" and insert in lieu thereof the word and figure "six (6)".

2. Paragraph 2.1 of the Lease is hereby amended to read as follows:

> "2.1 **Rental.** Lessee has paid to Lessor rental in full hereunder for the first 12 months of the term hereof. If Lessee has not commenced drilling operations on the leased land or terminated this Lease within that time, Lessee, commencing on the earlier to occur of (i) the expiration thereof or (ii) Lessee's entry on the leased land to commence operations pursuant to any Conditional Use Permit which may be issued therefore by the City of Whittier shall pay or tender to Lessor in advance, as rental for the next two (2) years of the primary term hereof the sum of One Hundred Forty Dollars ($140.00) per acre for so much of the said land as may then still be held under this Lease at the time of payment, which payment or tender shall operate as rental and as consideration for deferring the commencement of drilling operations for a period of two (2) years from the expiration of that period for which an advance rental has been paid. Lessee may pay or tender to Lessor on or before each of the third, fourth and fifth anniversaries hereof the sum of Seventy Dollars ($70.00) per acre for so much of said land as may then still be held under this Lease at the time of payment, which payment or tender shall operate as rental in advance and as consideration for deferring the commencement of drilling operations for the then next ensuing year of the term hereof, unless, before any such anniversary hereof, Lessee has quitclaimed this Lease or has theretofore commenced drilling operations on the leased land, or obtained production in paying quantities therefrom. The commencement of drilling operations may then be deferred for up to but not beyond the paid-up Primary Term hereof.

3. The Lease remains in full force and effect and unmodified except as expressly amended herein.

4. This Amendment may be executed in multiple counterparts, all of which, taken together shall constitute one single Amendment to the Lease.

LESSEE:

MATRIX OIL CORPORATION

By: Michael McCaskey Vice President Secretary
Signature (title)

Michael McCaskey
Printed Name

CLAYTON WILLIAMS ENERGY, INC.

By: T. Mark Tisdale Vice President
Signature (title)

T. Mark Tisdale
Printed Name

LESSOR:

CITY OF WHITTIER

By: _____
Stephen W. Helvey, City Manager

APPROVED AS TO FORM:

By: _____
City Attorney

Date: 4-11-11

EXHIBIT N

COPY OF NOTICE OF AVAILABILITY SENT TO OSLDF

PUBLIC NOTICE OF THE AVAILABILITY OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

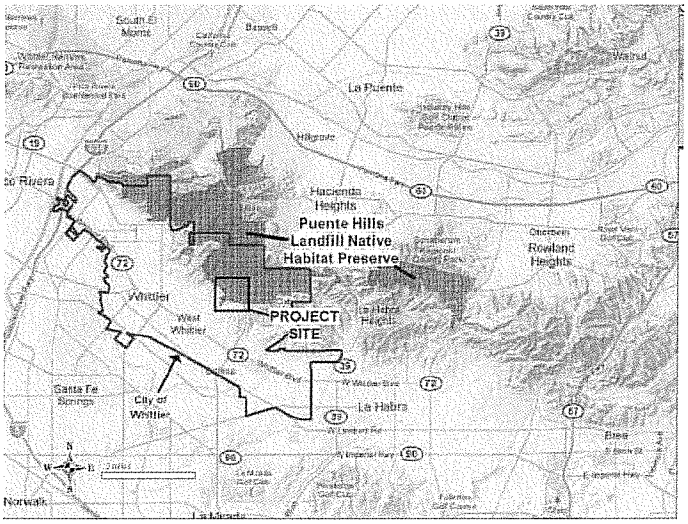
From: Planning Division, Whittier City Hall, 13230 Penn Street, Whittier, CA 90602. (562) 567-9320.

Notice is hereby given that the City of Whittier has prepared a Draft Environmental Impact Report (DEIR) pursuant to State and City Guidelines and Regulations for implementation of the California Environmental Quality Act (CEQA), for the following project:

Project: Whittier Main Oilfield Development Project; Conditional Use Permit (CUP) 09-004; State Clearinghouse (SCH) 2010011049.

Location: The proposed project is located on City owned land within the Puente Hills Landfill Native Habitat Preservation Authority, generally located north of Mar Vista Street and west of Colima Road. (See Figure below)

Applicant: Matrix Oil Corporation



Project Description: The Project would consist of wells, oil processing, natural gas plant, oil and natural gas pipelines, and oil truck loading facilities, to be located within portions of the 1,290-acre City owned Whittier Main Field, now part of the Authority Habitat Preserve. The oil and gas production and processing facilities will be physically located at one consolidated site within the Whittier Main Oil Field. The Project proposes that access to the site would be from both Catalina Avenue and Penn Street, as discussed in detail in the DEIR. The site would contain well cellars, well test stations, liquid and natural gas separating equipment as well as housing the oil processing facility and natural gas plant. The total pad area required for the oil and gas production and processing at the site is up to 7.0 acres. A crude oil pipeline and a natural gas pipeline would be installed within Colima Road, sections of which separately fall within City and County unincorporated areas, to transport crude oil and natural gas to markets.

Availability of the DEIR: The proposed Draft Environmental Impact Report, as to environmental effects, has been prepared and is available for public review and comment in the Planning Division, Whittier City Hall, 13230 Penn Street, Whittier, CA 90602. (562) 567-9320. A copy is also available for review at the following locations: Whittier Central Library, 7344 S. Washington Avenue, Whittier; and, Whittwood Branch Library, 10537 Santa Getrudes Avenue, Whittier.

Due to the time limits mandated by State law, your written response must be sent at the earliest possible date but no later than 45 days after the publication date of this notice.

The 45 day review period for this document begins on June 6, 2011 and expires on July 21, 2011. Public hearings on the Draft Environmental Impact Report and the project before the City Planning Commission and City Council will be scheduled and noticed separately.

Please address your response to Jeff Adams, Planning Services Manager at the address shown above, or you may email him at jadams@cityofwhittier.org.

Una version en español de este documento esta disponible en el sitio web de la ciudad www.cityofwhittier.org

RECEIVED
JUN 06 2011

City of Whittier - CD Dept.
Whittier Main Oil Field Project
13230 Penn Street
Whittier, CA 90602-1772

$0.44⁰
US POSTAGE
FIRST-CLASS
FROM 93003
JUN 03 2011
stamps.com
0623S0008886866

Claremont Land Group on behalf of Open Space Legal
Geralyn L. Skapik
250 West First Street Suite 330
Claremont CA 91711-4744

EXHIBIT O

CITY MANAGER AND PUBLIC WORKS DIRECTOR EMAILS REGARDING PENN STREET ISSUES

From: Steve Helvey
Sent: Wednesday, December 22, 2010 9:30 AM
To: David Pelser
Cc: Jeff Collier; Dan Wall
Subject: RE: Penn Street issues

David.....agreed. Mike, while being an Admiral, is actually an employee of the Sanitation District and his wife use to be a landfill manager in Redlands. They are nice people but don't really know anything about oil. However, that being said, they sure love Javier.
Steve

From: David Pelser
Sent: Wednesday, December 22, 2010 8:42 AM
To: Steve Helvey
Cc: Jeff Collier; Dan Wall
Subject: RE: Penn Street issues

Steve,

There are some very interesting comments here.

I am not sure I agree with their analysis of the value of landfill revenues versus oil revenues. While this is still speculative, I think there is a good chance the oil revenues will far outpace any economic value of the landfill to the City. If this is actually the case, it may be economically appropriate to consider reducing landfill operations or even early landfill closure if necessary to get the Matrix project approved.

On the other hand, I tend to agree with their sentiments about the landfill access road for the Matrix project. Ever since this was first proposed by the EIR consultant I have expressed concerns about it and I was surprised when they identified this access as the environmentally preferred alternative access for reasons similar to those that are outlined in the email below (biological impacts, environmental justice issues, impacts to residents and traffic on Penn, etc). My similar comments have mostly been verbal in the project meetings we have held for months now. In addition to the issues raised below, I also think the EIR consultant has consistently underestimated the complexity and seriousness of both engineering and regulatory challenges associated with putting the oil access road through the permitted landfill. I have shared these concerns with the EIR consultant and with Matrix consultants in great detail over a number of months. The EIR consultants have generally dismissed these concerns and proceeded anyway. The comments below indicate precisely where the DEIR is vulnerable to criticism in these areas.

David

David A. Pelser
Director of Public Works
City of Whittier
13230 Penn St.
Whittier, CA 90602

ph 562-464-3510
fx 562-464-3588
dpelser@cityofwhittier.org

-----Original Message-----

From: Steve Helvey
Sent: Tuesday, December 21, 2010 5:44 PM
To: Joe Vinatieri
Subject: FW: Penn Street issues

Joe.....called and spoke to Val for about 20 minutes today. We agreed that she didn't really need to form a homeowners association and that we'd appreciate her willingness to co-ordinate the neighborhood input in an informal way. We all pretty much know that she talks for them anyway so it pleased her that we weren't pushing them to form an official 501(c)(3) at this point. We talked at some length about their issues (all were pretty much summed up in the e-mail that Mike drafted) and agreed that their 'normal' issues needed to be separated from the Oil EIR issues. She understood that she and I couldn't get into the issues over the EIR. We agreed that she would give me some dates after the holidays and we would get together to see what we could address. The issues at the College that include traffic, parking, and the recent addition of a Penn St. entrance along with parking on Penn and very bright entry lights have certainly got some of the folks on that end of the street pretty unhappy. In any case, it looks like a couple of weeks before she and I will have our next conversation.
She did mention that she was going into the Clerk's office today to look at the landfill documents that she made a public records request for. Interestingly, she believes that we are in full compliance with our permit and actually offered up that the Integrated Waste Managment Board thinks that we operated one of the best municipal landfills. She also added that she thinks that Javier (our Landfill Manager) is the greatest thing since sliced bread.
That's it for now. See you on Thursday morning at the Christmas Breakfast.
Steve

From: Valorie Shatynski [v.shatynski@verizon.net]
Sent: Monday, December 20, 2010 8:00 PM
To: 'Mike Shatynski'; Joe Vinatieri
Cc: 'Shatynski, Michael RDML CNSF VC (N00R)'; Steve Helvey
Subject: RE: Penn Street issues

Joe and Mike, Steve Helvey is going to call me. I also want all of you to know that Javier Valle, the landfill supervisor has been extremely helpful to us on Penn Street the past several weeks. He lets us know when special hauling will be taking place, and deals with complaints directly. He is also having loads tarped, which helps reduce the dust significantly. The local enforcement agency folks tell me that Javier is one of their best landfill operators. They don't usually say things like that!

Holiday wishes to all of you, as we focus on our families and friends. Regards, Valorie

---

From: Mike Shatynski [mailto:mshatynski@verizon.net]
Sent: Sunday, December 19, 2010 5:51 PM
To: jvcc@bewleylaw.com
Cc: 'Shatynski, Michael RDML CNSF VC (N00R)'; Valorie @ Verizon
Subject: Penn Street issues

Joe,
It was great to have lunch with you on Thursday. As you requested, here is a summary of Penn Street issues. I will cover two topics separately - TRAFFIC and OIL DRILLING. Please feel free to share this with other members of council and staff.

As you read this, please keep in mind that Penn Street above Painter is a very diverse, low to middle income neighborhood with over 150 residences and almost 600 residents in a short 1/4 mile stretch of road. The residents range from non-English speaking, blue-collar renters raising a family to professional working single-mothers and from students to the elderly. Within a few houses in either direction, Valorie and I are very blessed to have neighbors

such as: a noted songwriter/publisher in Mexico, a chief of staff for a State representative, a union organizer, a grade school teacher, an accomplished interior designer, a manufacturing business owner, a landscaping contractor, and a restaurant owner. An organization to represent Penn residents is now being formally organized.

Also, please remember that we on Penn Street successfully fought to keep the Savage Canyon landfill for the City. We clearly understand the benefits for our City. Almost a decade ago, before Puente Hills landfill was slated to close, the income projections for the City were $120 million over the life of our landfill. Now it is even more and, most important, we control our waste stream and will not be subject to astronomical rates other cities will face once Puente Hills landfill closes. The cost avoidance is even more substantial than the revenue.

Now, to my summaries.

TRAFFIC. This is an issue that must be dealt with now as a separate issue from oil drilling. The City allowed developers to overbuild Penn Street without adequate parking. Traffic and parking has increased in the past decade to intolerable levels. I believe "the straw that broke the camel's back" for Penn residences occurred on Christmas a couple years ago when the City stopped work on the methane pipeline to PIH from the landfill and left us to deal for weeks with a street full of trenches and metal plates with no parking and the usual commuter & landfill traffic. Without going into details, quite literally, the City ruined Christmas for all of us. A proactive Traffic Management Plan is desparately needed immediately, to deal with the cumulative effects of all the below listed factors as well as those non-recurring events like the PIH methane pipe.

Commuter traffic. Commuters use Penn as a shortcut to Mar Vista and Painter. High speed, reckless driving is common. Accidents are routine as residents attempt to exit the 55 or so driveways along this short stretch of road. There are no effective measures in place to calm this traffic or protect us as residents walk, students go to class, and children play. There is no enforcement of speed limits.

Landfill trash traffic. Trash traffic has increased - possibly doubled - in the past decade. In violation of the permit, the City has opened the landfill to outside trash to increase revenues.

Dirt hauling traffic. Daily traffic by heavy trucks increased - again possibly doubled - as the city has allowed hauling of substantial amounts of dirt and other inert materials into the landfill. Residents have been acutely aware but tolerant assuming it was a temporary situation and dirt is very necessary for landfill operations. Most recently, church construction in Friendly Hills brought much dirt in and it will certainly happen again.

Sporting event traffic. In the past few years, Whittier College has started routinely renting out their sporting facilities to local high schools and colleges. An informal count of seats shows the stadium has a capacity of over 8000 and the gymnasium of over 2000. There is not adequate parking for this many fans at the school. Literally, there are nights that we cannot get up or down our street or in and out of our driveways due to sporting event traffic. While pool construction is ongoing, the gym entrance and parking has moved to Penn Street since the adjacent lot has been closed. Whittier College keeps the gate locked to access Canyon forcing students to use Penn to access the gym. Every day in the afternoon and evening, between 25 and 50 cars park on Penn Street due to practice in the gym. This weekend, more parking was lost on Penn in front of the gym due to a posted drop off zone.

Penn Park traffic. The park is rented out by the City for large gatherings, wedding related activies, etc., bringing yet more traffic including limousines on weekends. The gates are locked along York, forcing parking down onto Penn.

As a result of the above cumulative traffic uses on Penn Street, most sponsored or condoned by the City, Penn Street has become a dangerous place to live. We have lost our quiet evenings and weekends.

OIL DRILLING. There is much wrong with the DEIR. Both Valorie and I are very, very familiar with EIRs and the associated process based on her experience as Solid Waste Manager for the City of Redlands & now as Deputy Director for the RMC and mine as a licensed PE with a masters in Civil Engineering. You asked for two inaccurate or misleading statements in the DEIR so I have chosen two from the Executive Summary regarding use of the "Landfill Road Alternative". Please read these in context as a Penn resident. I could provide more but I get angry every time I reread the DEIR.

PAGE ES-18 "This alternative would not require constructing a new road through riparian habitat or other biological resources. Although noise levels and health risk associated with the proposed Project new access road were less than significant, elimination of the access road and utilizing the existing Preserve road that is farther from residences would reduce impacts associated with noise and health risks to the residences. In addition, traffic impacts along Mar Vista Road would be eliminated since all traffic would utilize the Preserve road and Penn Street instead."

So, please explain to residents on Penn how running the same vehicles in front of the many homes on Penn "reduce impacts associated with noise and health risks to the residences"?

PAGE ES-19 "The impacts of the proposed Project access road can be effectively reduced by utilizing the Landfill Road Alternative, which moves vehicle traffic away from recreational areas and from residences. It also eliminates the traffic impacts on Mar Vista Street, which currently operates at an unacceptable level of service. The use of the landfill road would generate some traffic impacts along Hadley Street, which is also operating at a low level of service, but these impacts could be mitigated by limiting the hours of project traffic. Therefore, the landfill road alternative is the environmentally preferred access route."

Again, please explain to residents on Penn and users of Penn Park how this option "moves vehicle traffic away from recreational areas and from residences" and why Mar Vista's unacceptable level of service is considered yet Penn's is acceptable?

Aside from Penn residents concerns, there are fatally flawed environmental analyses for the "Landfill Road Alternative" as the Environmentally Superior Alternative in the DEIR which are best considered by reviewing two key documents provided by Puente Hills Landfill Native Habitat Preservation Authority and the Sierra Club. The PHLNHPA provided a 23-page study by the very reputable firm of David Magney Environmental Consulting (DMEC) which is quite critical of the entire DEIR but especially the the "Landfill Road Alternative". I draw your attention to pages 19-21 of the DMEC report.

The 5-page letter from the Sierra Club builds on the DMEC report and had particular comments on the "Landfill Road Alternative" on the 4th and 5th pages:

"The use of an existing road around Savage Canyon Landfill to the Consolidated Site would eliminate the need for the new access road. However, the landfill road would need to be widened with fire modification clearance of 10 feet required on either side. This requires the permanent removal of some of the best quality native vegetation in the Core Habitat Area

for the lifespan of the project—violating the mandate for protection of such resources in the Preserve. The Landfill Road would cut through habitat of the federally listed California Gnatcatcher. The only reported breeding pair of gnatcatchers in the Core Habitat is adjacent to this road. Improvement of this road and fuel modification requirements would result in the removal of occupied gnatcatcher habitat. For these reasons we believe this road is not an acceptable access. In addition, we are also concerned with the impacts to Penn Park and the community adjacent to the entrance of the Savage Landfill access; these impacts were not addressed in the DEIR."

ENVIRONMENTAL JUSTICE. Finally, I mentioned to you at lunch that the residents of Penn are consulting with an attorney who is an EIR specialist that works pro bono on environmental justice issues. Environmental justice is the heart of the EIR process. The City of Whittier's EIR process in this case is being watched closely by her and other environmental justice attorneys. Simply, the new alternative has moved the access from a wealthy neighborhood where it would pass 8 homes with 24 occupants into a neighborhood with 150 homes and over 500 residents clearly shown in the DEIR as lowest income and most diverse. The environmental analyses prepared by both DMEC and Sierra Club state that the original proposed alternative on Catalina has the least impact.

FINAL QUESTION: Again, both the DMEC and Sierra Club reports state that the original proposed alternative on Catalina has the least impact. With modern slant drilling technologies and mitigation measures, why must the drill site and access road affect ANY residences in Whittier?

Hope you find this helpful in gaining a better understanding of the concerns of the 500+ residents on Penn Street. Valorie and City staff are planning to talk which will also hopefully help with understanding. We continue to get input from our neighbors. I will be in San Diego on orders this week so have cc'd my Navy email account if you have any questions or comments and I am always available to talk to you by phone or in person.

Have a great holiday season,

Mike

PS, To save you some time, here is the excerpt from the DMEC report:

"LANDFILL ROAD ALTERNATIVE ANALYSIS

Section 6.1.5.2 of the DEIR (p. 6-42) briefly assesses how the Landfill Road Alternative will affect biological resources in the Preserve. The conclusion of this assessment is that the Landfill Road Alternative will:

- Reduce some impacts to sensitive species and sensitive coastal sage scrub

- Eliminate all impacts to riparian habitats

EXHIBIT P

CITY OF WHITTIER'S REQUIREMENTS FOR A CUP APPLICATION SUBMITTAL

Conditional Use Permit Application

PLANNING DIVISION
13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562)464-3380 FAX (562)464-3509
www.cityofwhittier.org

This application is for conditional use permits to be reviewed by the Zoning Administrator and Planning Commission

FILING INSTRUCTIONS

1. Have Planning Division Staff identify whether the Zoning Administrator or Planning Commission has review authority over the application:

☐ ZONING ADMINISTRATOR (MINOR CONDITIONAL USE PERMIT)	☐ PLANNING COMMISSION (REGULAR CONDITIONAL USE PERMIT)
The Zoning Administrator reviews minor requests such as proposals for second-floor accessory living areas and large family daycares	The Planning Commission reviews all other conditional use requests, such as for alcoholic beverage sales, 24-hour operation; churches, etc.

2. Complete the application form attached. In addition to the application form, several other items and exhibits must be submitted as part of your application. A checklist of these items, along with supplemental information follows the application form.

3. Submit your complete application package to the Planning Division, at the address shown in the title block above. An overview of the application process is included on the pages that follow. A flowchart is also included, showing the general stages through which your application will be evaluated.

What other City departments might be involved in my project?

See the "Who to Call" sheet at the back of this packet

Application Review Q&A

What happens after the application is submitted?

When you submit your application package, a staff planner will be assigned to your project. The planner will check your application for completeness. State Law allows cities 30 days to review applications for completeness. We will notify you in writing of any outstanding items.

After the application is deemed complete, what is the review procedure?

Once staff deems your application complete, the application will be scheduled for public hearing before the Planning Commission.* Your project planner will prepare a staff report, which will be available to you approximately four days prior to the hearing. Ten days prior to the hearing, Planning staff will mail out a public notice to all surrounding property owners within 300 feet of the subject property to inform them of the hearing.

**or Zoning Administrator*

What takes place at the hearing?

At the hearing, the Planning Commission* will consider the application, including the project plans, exhibits and the staff report. Planning staff will briefly summarize the staff report, after which there will be an opportunity for any interested public to address the Commission.* There will also be an opportunity for the applicant to address the Commission.* At the conclusion of the hearing, the Planning Commission* will take one of three actions: approve the application; continue consideration of the application to a future date; or deny the application.

If the Commission* approves or denies the application, a 30-day appeal period will commence. During this time, any interested party may appeal the determination of the Planning Commission* to the City Council. The Commission's* action is also placed on the City Council consent calendar during the appeal period to advise the Council of the Commission's* action.

On Minimum Requirements

The Planning Commission and Zoning Administrator have the authority to impose requirements above and beyond the minimum requirements of the code if they find that the public health, safety and welfare is served by doing so. These requirements can include parking, setbacks, height, and hours of operation, among others.

How long does the review process take?

An application processing flowchart is included on the next page, which outlines the review procedure, and includes approximate time frames for each stage. As a rough guide, plan on three to four months, including the appeal period. The time needed can vary, depending on such factors as staff case load, hearing scheduling constraints and the complexity of the case.

When does the Planning Commission meet?

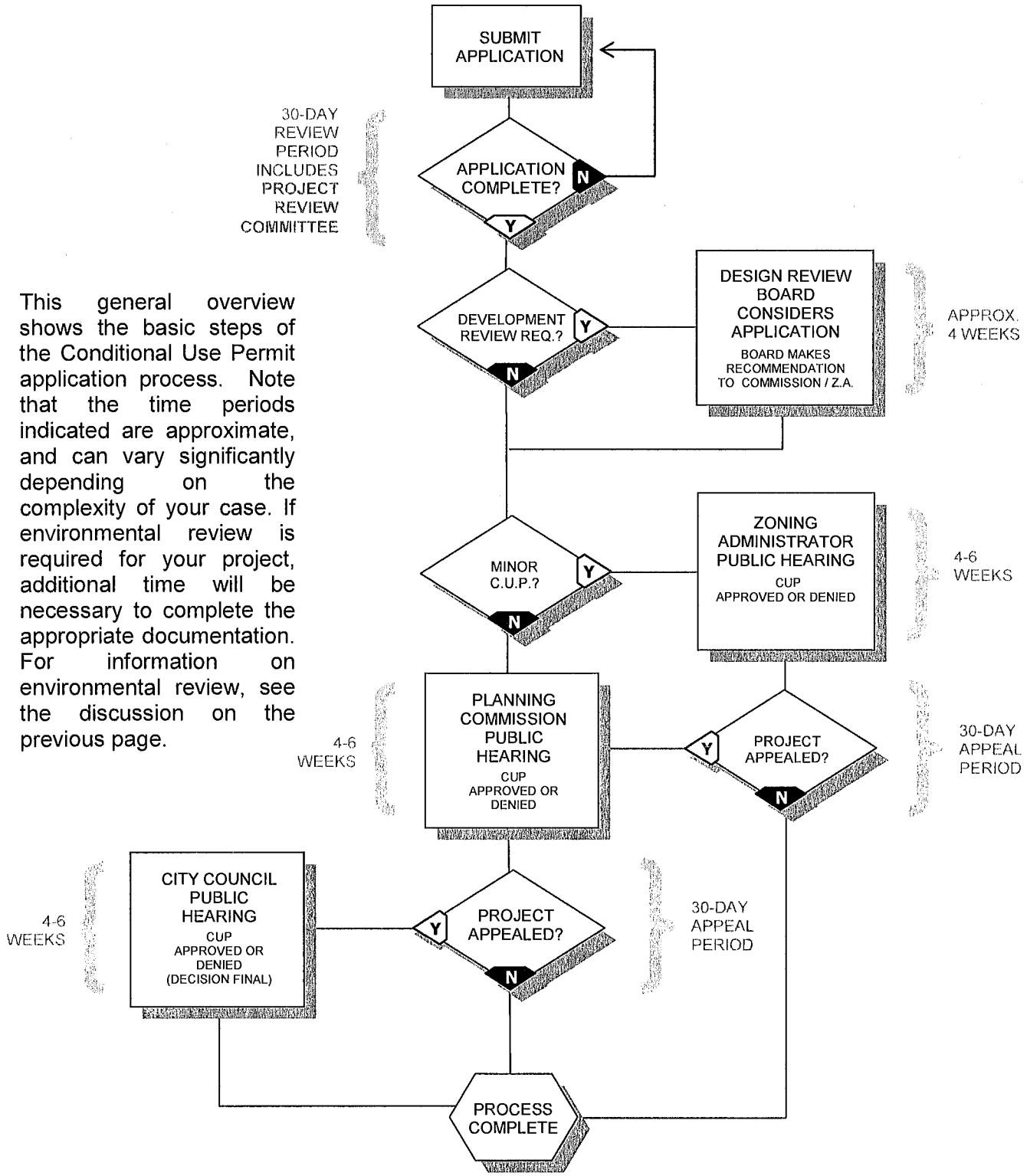
The Planning Commission meets the first and third Monday of each month at 7:00 p.m., in the Council Chambers of City Hall, on the second floor. Zoning Administrator hearings are scheduled on a case-by-case basis.

What about environmental review?

If your project requires environmental review under the California Environmental Quality Act (CEQA) additional time will be required for staff to prepare environmental documents, including an environmental initial study and public notices. The amount of time needed can vary considerably depending on the size and complexity of your project. Your staff planner will advise you if environmental review is required. Details of required submittals are found in the attached checklist.

AN OVERVIEW OF THE APPLICATION REVIEW PROCESS

This general overview shows the basic steps of the Conditional Use Permit application process. Note that the time periods indicated are approximate, and can vary significantly depending on the complexity of your case. If environmental review is required for your project, additional time will be necessary to complete the appropriate documentation. For information on environmental review, see the discussion on the previous page.



City of Whittier

PLANNING DIVISION

13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562)464-3380 FAX (562)464-3509
www.cityofwhittier.org

CONDITIONAL USE PERMIT APPLICATION

CASE NO: ❑ C ❑ ZA

_____-_____

ASSOCIATED CASES: _____

1. PROJECT INFORMATION

PROJECT ADDRESS	ASSESSOR'S PARCEL NUMBER ___ ___ ___ ___ - ___ ___ ___ - ___ ___ ___
LEGAL DESCRIPTION (I.E. LOT AND TRACT NUMBER)	
I/WE THE UNDERSIGNED, REQUEST A CONDITIONAL USE PERMIT FOR THE ABOVE PROPERTY. THE CONDITIONAL USE PERMIT IS TO ALLOW*: ***Note: Complete the Business / Activity Description sheet that follows the signature page of this form***	

2. APPLICANT INFORMATION*

If the applicant is not the property owner, the owner must complete the **Owner's Affidavit in Section 4*

NAME	PHONE
STREET ADDRESS	FAX
CITY, STATE, ZIP	E-MAIL (OPTIONAL)
RELATIONSHIP OF APPLICANT TO PROPOSAL (BUSINESS OWNER, CONSULTANT, ETC.)	

3. REQUIRED FINDINGS

State law requires Planning Commissions or Zoning Administrator to make certain findings before granting a conditional use permit. It is the applicant's responsibility to provide evidence to the Planning Commission or Zoning Administrator that these findings can be made. Each of the findings are listed below, with a space for you to provide supporting evidence. The Planning Commission or Zoning Administrator will consider your responses, as well information on your plans, business description, and other sources in determining whether the findings can be made.

- **The site is adequate in size, shape and topography for the proposed use, as evidenced by:**

_____

_____

_____

- **The site proposed for the use has sufficient access to streets which are adequate, in both width and pavement type, to carry the quantity and quality of traffic generated by the proposed use because:**

_____

_____

_____

_____

- **The activities proposed will not interfere with the use, possession and enjoyment of surrounding or adjacent properties for the following reasons:**

_____

_____

_____

_____

_____

- **The proposed use will be compatible with existing and permitted uses of surrounding and adjacent properties in the following ways:**

_____

_____

_____

_____

_____

- **The use will be consistent with the General Plan, any applicable specific plan and the Whittier Zoning Regulations, with regard to location, operation and design of the use, in the following ways:**

_____

_____

_____

_____

APPLICANT'S SIGNATURE AND DATE
Date:

4. OWNER'S AFFIDAVIT

This affidavit allows the applicant identified in the box above to act in the owner's stead. The Planning Division will assume that the applicant will represent the proposal at any required public hearings. Although the owner will receive notice of any public hearings, all correspondence will be sent to the designated applicant.

CASE NO: _____

I/We, the owner of the subject property, hereby authorize

_____ to:
APPLICANT'S NAME

- ❑ Make application for a Conditional Use Permit for the subject property and/or;
- ❑ Act for me in my place and stead at any and all meetings connected with this application, either before the Planning Commission or the City Council, and to take such action as deemed advisable in connection with this application.

Owner's Signature: _____ Date: _____

OWNER'S NAME	PHONE
STREET ADDRESS	FAX
CITY, STATE, ZIP	

TO BE COMPLETED BY CITY STAFF

SPECIFIC PLAN AREA:

❑ **W.T.C.S.P.** ❑ **UPTOWN**

❑ **WHITTIER BOULEVARD SPECIFIC PLAN**

❑ **REDEVELOPMENT PROJECT AREA**

ISSUED BY: _____

RECEIVED BY: _____

DATE: _____

FEE: $_____ (ACT. PL 452)

Conditional Use Permit

Business / Operational Description

PLANNING DIVISION
13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562)464-3380 FAX (562)464-3509

Please provide a comprehensive description of your proposed business or operation below. Spaces for basic information are provided, however, please use the large space below to provide other details which describe other relevant aspects of your operation.

PROJECT ADDRESS	APPLICANT'S NAME
TYPE OF OPERATION	
HOURS OF OPERATION (WEEKDAY / WEEKEND)	NUMBER OF PERSONS EMPLOYED, AND MAXIMUM NUMBER ON SITE
NUMBER AND TYPE OF VEHILCLES USED IN THE OPERATION, AND WHERE STORED	
PROVIDE A FULL DESCRIPTION OF THE PROPOSED OPERATION:	

Conditional Use Permit

Application Checklist

PLANNING DIVISION
13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562) 464-3380 FAX (562) 464-3509

All applications require the items below. Additional items depending on the type of proposal. Some checklist items are further explained in the sidebar to the left. The sidebar also includes other notes and tips to ensure your application is as complete as possible.

IMPORTANT NOTES

- All required items must be included or accounted for when you submit your application
- Incomplete submittals will delay the review process
- Plans must be designed to preserve existing parkway trees. Parkway trees may only be removed in cases of disease or hazardous circumstances. For information, contact the Park Department at (562)464-3375

Applicant vs. Owner

If you are not the owner of the property, be sure to complete the Owners Affidavit section of the application

Paper size vs. drawing size

Please keep the drawings size proportionate to the paper size (i.e. do not submit 8" x 10" drawings on 24" x 36" sheets)

What is a site plan?

A site plan is a scaled drawing showing the subject property from a bird's eye view. A sample site plan is included in this packet.

To the right is a list of all the elements you will need to include on your plan. In addition to this information, other exhibits, such as topographic maps and detail sheets may be required. Call the Planning Department if you're not sure if all these items are required.

As noted above, existing parkway trees must be preserved in place, unless a waiver from the Park Department is secured.

__ **A. Application Form**
Fill out completely

__ **B. Site Photographs**
Provide 4" x 6" minimum-size color photographs showing all sides of the property. Also include adjacent properties, and if required, the entire streetscape. Do not mount the photographs.

__ **C. Architectural Drawings**
❑ **Site** ❑ **Elevation** ❑ **Floor** ❑ **Roof** ❑ **Landscape** plans, as follows (drawing and lettering must be clear and readable):

1. 11 full-size plan sets (11" x 17" min., 24" x 36" max.)
2. 1 reduced-size plan set (8½" x 11" or 8½" x 14")
3. *1 full-size, mounted set of elevations, colored*

*If in **italics**, the item is required only if there will be new construction*

Site Plan must include:

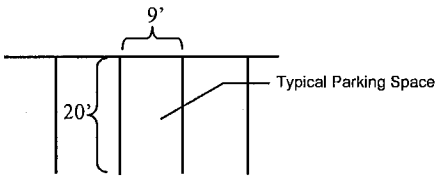
A. Architect's name and contact information
B. Project address
C. North arrow (orient to top of sheet if possible)
D. Graphic and fractional scales
E. Date of drawings (including subsequent revisions)
F. Property line dimensions
G. Location and names of adjacent streets
H. Public improvements within the parkway
I. Structure location(s), dimensions and floor areas
J. Setback dimensions
K. Dimensioned driveway widths (include curb cuts)
L. Parking configuration
M. Curbs, sidewalks and walkways (if applicable, after dedication)
N. Walls and fences, existing and proposed (include height)
O. Ground-mounted equipment and screening
P. Exterior lighting
Q. Signs
R. Required setbacks for the zone

Parking space tabulation

Within the parking area layout, include the number of parking spaces in each parking row

Uniform parking space size

Indicate on the plan the typical parking spaces size (i.e. 9′ x 20′). This is often done by dimensioning one of the parking spaces and labeling it "typical parking space"

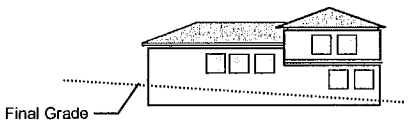


Lot coverage is the square footage of all overhead structures on the site divided by the total lot area

Floor area ratio is the square footage of all *livable* floor area (including second stories) divided by the lot size

What are elevations?

Elevations are dimensioned drawings of the structure as a person standing in front of it would see it. Elevations must accurately represent the final building product.



What is the purpose of a conceptual landscape plan?

This plan is a site plan that gives a clear impression of how the landscaping for the development will look. If your project is commercial or industrial in nature, your staff planner will advise you on whether the ***City of Whittier Landscape Guidelines*** apply. These guidelines discuss the conceptual landscape plan in detail, and contain specific landscape development policies and standards.

Project Tabulations, including:

Non-Residential:

- Net lot area
- Number of proposed structures on site and gross floor area
- Number of stories for each structure
- Parking spaces required, existing and proposed
- Area of landscaping (call out separately for parking area)
- Legal description

Residential:

- Net lot area
- Number of units and stories proposed
- Area for each unit, and number of bedrooms
- Number of parking spaces covered and uncovered—proposed, existing and required
- Area of private and common open spaces
- Legal description
- Lot coverage

Floor Plan must include:

A. All Floors
B. Room type and dimensions
C. Balconies and decks, dimensioned
D. Window size and type
E. Door locations

Elevation Drawings must include:

A. Dimensioned drawings of all relevant elevations
B. Sections through areas of grade differentials
C. Dimensioned building height
D. Proposed signs (wall, projecting and freestanding)
E. All architectural details intended for final construction, including wall-mounted lighting
F. Front elevations of immediately adjacent structures
G. Landscaping with approximately three years of growth
H. Must be drawn to show final grading
I. Roof pitch

***Roof Plan** must include:*

A. Location of HVAC units, if placed on the roof
B. Screening of HVAC and other roof-top equipment

Conceptual Landscape Plan

Show the location, types and container sizes of all proposed plant materials, including trees, shrubs and groundcover. Also show existing trees to be removed, and indicate type and trunk diameter.

___ ***D. Colors and Materials Board***

Submit one foam core or similar type board no larger than 18" x 24" with samples or accurate photographic representation of all proposed exterior materials and colors. On the board, include the project address and the designer's name and phone number. Identify the manufacturer and the item specification number of each sample.

___ **E. Environmental Assessment Form**

Complete this form if necessary

___ **F. Environmental Fees**

Remit the following fees, if required:

- ❑ Environmental Initial Study (EIS) and Negative Declaration (ND) fee of **$1,453***

  **Planning Staff may hire an outside consultant to complete this study, in which case a deposit equal to 120% of the consultant's budget estimate will be required.*

- ❑ One check for **$50** made out to the **Los Angeles County Recorder**

Property radius map information

Submit a map at a scale of 1" = 200' or 1" = 100', showing all of the lots within **300 feet** of the boundaries of the subject property.* Number each of the lots consecutively and assign the number on each lot to the corresponding entry on the property owner's list (do not use assessor's parcel numbers for this purpose.) The attached sample map provides further instruction.

Property Owners List From the latest equalized assessment roll of the County Assessor, compile a typewritten list of the names and mailing addresses of the owners of all lots or parcels within 300 feet of the boundary of the subject property as shown on the vicinity map. Using **Avery 5160 or equivalent labels**, arrange the entries so they are numbered consecutively, corresponding with the numbers of the lots on the vicinity map. The property owners list should include address labels for the applicant, owner, and anyone associated with the project who may require a public hearing notice. ***(Note: Zip Codes must be included.)***

___ **G. Vicinity Map and Property Owners List**

See information, left (Use **Avery 5160 or equivalent labels)**

___ **H. Business / Operational Description**

As noted on the application form, a complete business /operational description is required. Please complete the form titled "Business / Operational Description," which follows the signature page of the application form.

___ **I. Filing Fee**

The filing fees for a Conditional Use Permit is $2,233.

The filing fees for a **Minor** Conditional Use Permit Modification are as follows:

Residential	$747
Commercial	$934

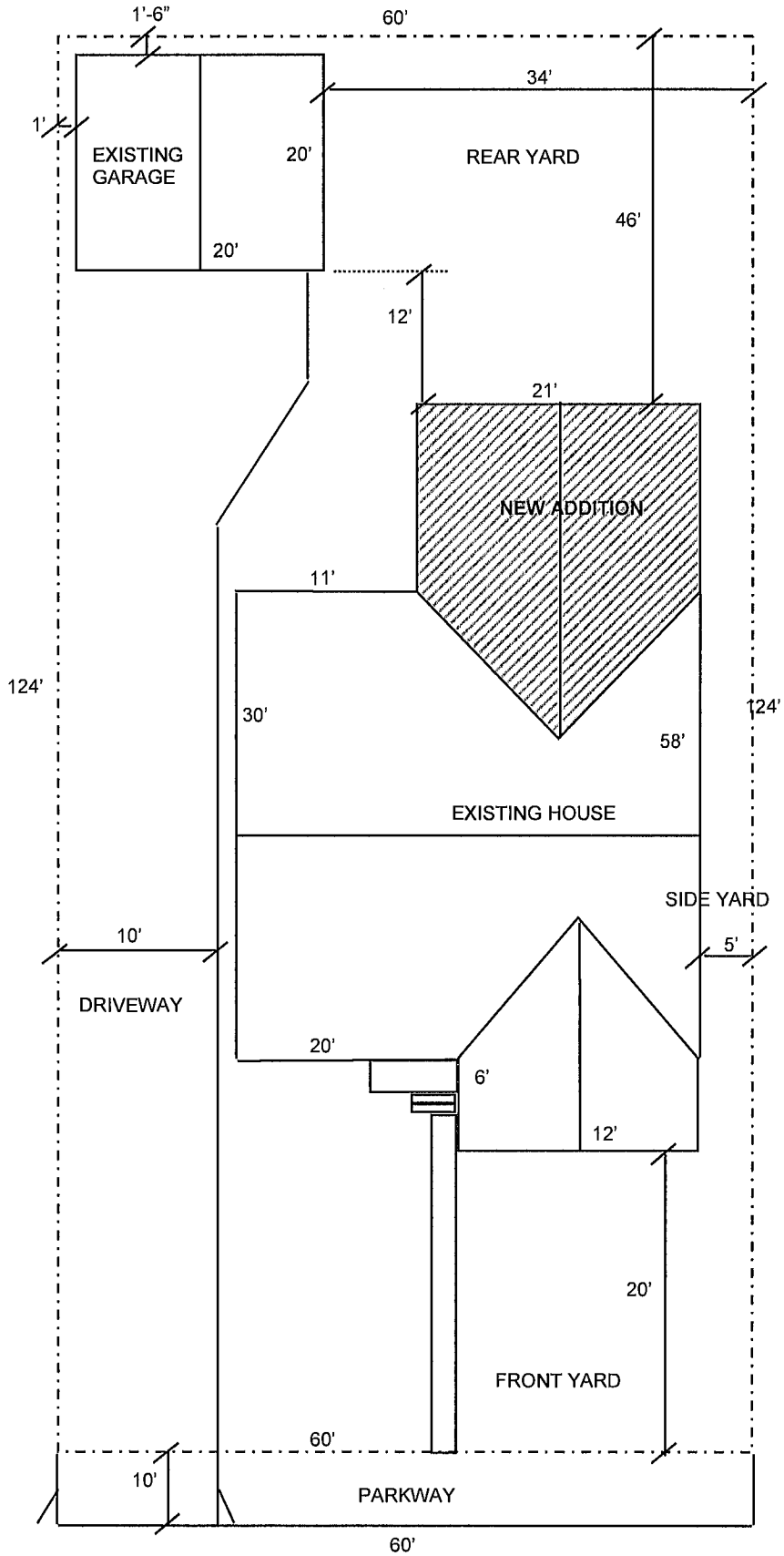
The filing fee helps defray the City's cost to review the application, and is non-refundable, even if the application is denied.

* Many companies provide this service for a reasonable cost. The Planning Division can provide you with a list of some firms which produce radius maps and ownership lists.

SAMPLE SITE PLAN

The Site Plan submitted for your home improvement project should show the following:

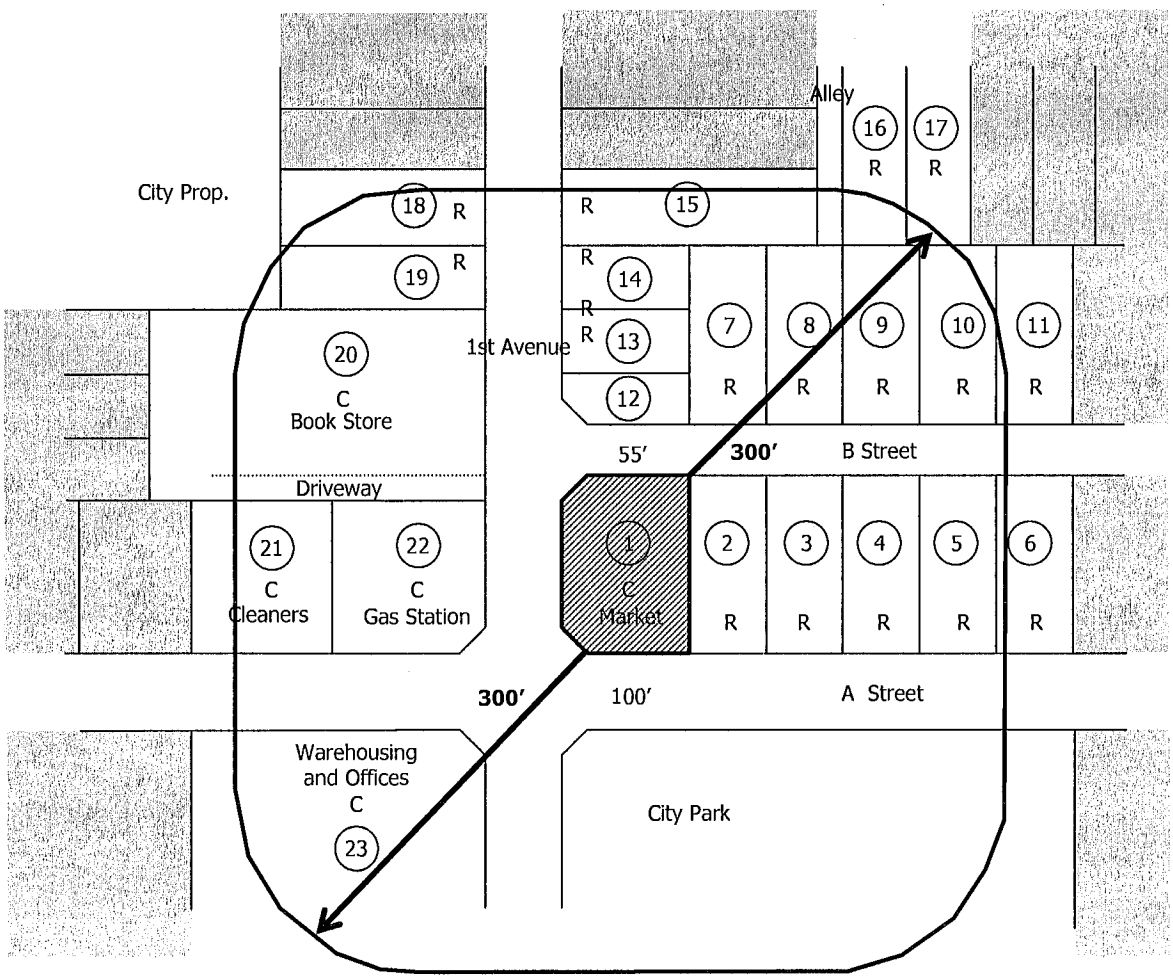
1. Location and dimensions of the lot lines
2. Location and size of all existing and proposed structures including front, side and rear setback dimensions, as well as structure dimensions
3. Location and width of driveway
4. The Site Plan should be drawn to scale and show a north arrow
5. The street address and name should be clearly indicated
6. The parkway width should be clearly indicated, and all public utilities should be shown
7. A floor plan and elevations may be required
8. All mechanical equipment (i.e. a/c units, water softeners, etc.) should be clearly indicated
9. Other information may be required as deemed necessary by the Planning Division
10. For additional information concerning the preparation of a Site Plan or requirements, or City Zoning Laws, please contact the Planning Division at (562)464-3380.



STREET NAME AND ADDRESS
Scale: 1/8 in. = 1 Foot

N O R T H

SAMPLE PROPERTY OWNER RADIUS MAP



The Planning Division maintains a list of companies that develop property owner radius maps and address labels for a fee.

LEGEND

3 PROPERTY OWNER LIST INDEX NO.

SUBJECT PROPERTY

R RESIDENTIAL

C COMMERCIAL

North
Scale 1:100

Instructions and Information

- Use 8 1/2" x 11" or 14" inch paper and a scale of 1":100' or 1":200'
- Draw a radius extending 300 feet from the boundaries of the subject property. The radius line must account for the shape of the property
- Indicate the land uses on each lot within the radius
- Number each lot within the radius. These numbers must correspond with the property owner address list. Do not use Assessor Parcel Numbers for this purpose

WHO TO CALL

Most building projects require interaction with other City departments in addition to the Planning Division for approvals or technical information. The departments and divisions most often involved in reviews or consultation include:

- Public Works Department (First Floor) (562) 464-3510
- Park Department (Basement) (562) 464-3375
- Community Development (Second Floor) (562) 464-3380
  - Planning Division
  - Building Division
  - Redevelopment and Housing Division
- Police Department (Police Station) (562) 945-8250

All are open from 8:00 a.m. to 5:00 p.m., Monday through Friday, with the exception of the Building and Planning Division, which are open from 8:00 a.m. to 3:00 p.m., Monday through Friday, and are located within City Hall. The general areas of responsibilities for each of these departments and divisions are

Community Development Department
(562) 464-3380

Building Division

- Administer the Uniform Building Code(UBC)
- Answers construction questions
- Reviews construction drawings
- Issues building, plumbing and electrical permits
- Conducts site inspections

Planning Division

- Answer planning , zoning and design related questions
- Review discretionary applications for current development
- CEQA compliance
- Create, amend and implement General Plan, Specific Plan and Zoning Code

Redevelopment and Housing Division

- Home improvement loans
- 1st time home buyers program
- Rental rehab loan program
- Minor home improvement grants
- Administers three redevelopment project areas

Public Works Department
(562) 464-3510

- Reviews grading and drainage plans
- Issues grading permits
- Evaluates soils reports
- Maintains public right of way and street width information, including dedications
- Analyses traffic reports
- Reviews curb, gutter and sidewalk permits
- Reviews sidewalk and driveway permits
- Manages refuse collection
- Maintains sewer and water information

Park Department
(562) 464-3375

- Reviews landscape and irrigation plans
- Provides information on appropriate plant selection
- Reviews conformance of plans to water conservation ordinances
- Conducts on-site landscape and irrigation inspections
- Responds to issues concerning parkway tree

Police Department
(562) 945-8250

Reviews plans for security and public safety issues

Our web site: www.cityofwhittier.org

Development Review Application

PLANNING DIVISION
13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562)464-3380 FAX (562)464-3509
www.cityofwhittier.org

This application is for all developments to be reviewed by the Design Review Board, Zoning Administrator, and/or Planning Commission

FILING INSTRUCTIONS

1. Determine the level of review your project will require:

❑ LEVEL A	❑ LEVEL B	❑ LEVEL C
Authority: Planning Manager	Authority: Zoning Administrator	Authority: Planning Commission
PROJECTS:	PROJECTS:	PROJECTS:
Commercial Awnings	Multi-family developments consisting of 3 to 9 dwelling units on a lot	Multi-family developments consisting of 10 or more dwelling units
Substantial changes to building facades	Commercial or industrial buildings or additions from 5,000 to 15,000 square feet	Commercial or industrial buildings over 15,000 square feet
Multi-family developments consisting of two or fewer dwelling units on a lot		
Commercial or industrial buildings or additions under 5,000 square feet		

In all cases, the **Design Review Board (DRB)** considers the project, serving as an advisory body to the approving authority.

2. Complete the application form attached. In addition to the application form, several other items and exhibits must be submitted as part of your application. A checklist of these items, along with supplemental information follows the application form.

3. Submit your complete application package to the Planning Division, at the address shown in the title block above. An overview of the application process is included on the pages that follow. A flowchart is also included showing the general stages through which your application will be evaluated.

What other City departments might be involved in my project?
See the Who to Call sheet at the back of this packet

Application Review Q&A

What happens after the application is submitted?

When you submit your application package, a staff planner will be assigned to your project. The planner will check your application for completeness. State Law allows cities 30 days to review applications for completeness. We will notify you in writing of any outstanding items.

After the application is deemed complete, what is the review procedure, and how long does it take?

Once staff deems your application complete, the application will be scheduled for review before the Design Review Board. After the Design Review Board review, the path your case takes depends on the level of review your application requires.

- ❑ **Level A** projects require no further review no further review after Design Review Board.
- ❑ **Level B and C** projects require that a public notice be mailed to the owners of surrounding properties, advising them of the project, and of the date and time of the hearing before the Zoning Administrator or the Planning Commission. You must submit the names and addresses of surrounding property owners along with you application materials. Staff will prepare the notice and complete the mailing. See the checklist for details. Upon final review, projects are subject to a 30-day appeal period.

An application processing flowchart is included on the next page, which outlines the procedures for the three levels of review, and includes approximate time frames for each stage.

When does the Design Review Board and Planning Commission meet?

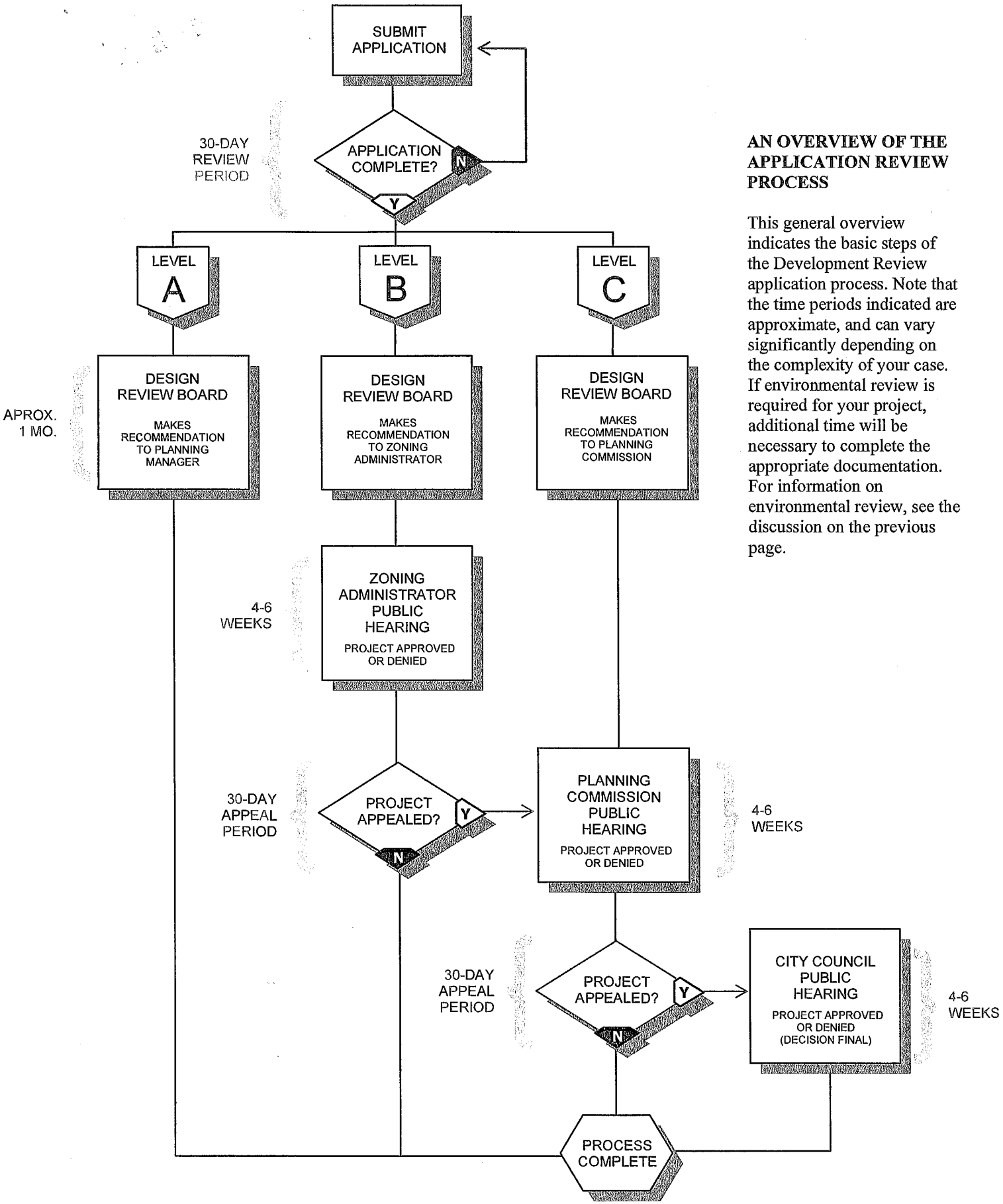
The Design Review Board meets the second and fourth Thursday of each month at 8:00 a.m. The Planning Commission meets the first and third Monday of each month at 7:00 p.m. Both bodies meet in the Council Chambers of City Hall, on the second floor.

What about environmental review?

If your project requires environmental review under the California Environmental Quality Act (CEQA) additional time will be required for staff to prepare environmental documents, including an environmental initial study and public notices. The amount of time needed can vary considerably depending on the size and complexity of your project. Your staff planner will advise you if environmental review is required. Details of required submittals are found in the attached checklist.

Some background on environmental review

A state law known as the California Environmental Quality Act requires that all but minor development projects undergo a rigorous environmental review. The Environmental Initial Study discussed above is an outgrowth of this legislation, and provides a consistent framework in which to analyze impacts such as traffic generation, noise, air quality, odor, and aesthetics.



AN OVERVIEW OF THE APPLICATION REVIEW PROCESS

This general overview indicates the basic steps of the Development Review application process. Note that the time periods indicated are approximate, and can vary significantly depending on the complexity of your case. If environmental review is required for your project, additional time will be necessary to complete the appropriate documentation. For information on environmental review, see the discussion on the previous page.

City of Whittier
PLANNING DIVISION
13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562)464-3380 FAX (562)464-3509
www.cityofwhittier.org

DEVELOPMENT REVIEW APPLICATION

CASE NO: DR- _____

ASSOCIATED CASES: _____

1. PROJECT INFORMATION

PROJECT ADDRESS	ASSESSOR'S PARCEL NUMBER ___ ___ ___ ___ - ___ ___ ___ - ___ ___ ___
LEGAL DESCRIPTION (I.E. LOT AND TRACT NUMBER)	
BRIEFLY DESCRIBE THE PROJECT	

2. APPLICANT INFORMATION*

If the applicant is not the property owner, the owner must complete the **Owner's Affidavit in Section 3*

NAME *(IF THE APPLICANT IS AN ORGANIZATION, PLEASE INCLUDE A CONTACT PERSON)*	PHONE
STREET ADDRESS	FAX
CITY, STATE, ZIP	E-MAIL (OPTIONAL)
RELATIONSHIP OF APPLICANT TO PROJECT (ARCHITECT, CONSULTANT, ETC.)	**APPLICANT'S SIGNATURE:** DATE:

3. OWNER'S AFFIDAVIT

This affidavit allows the applicant identified in the box above to act in the owner's stead. The Planning Division will assume that the applicant will represent the project at any required public hearings. Although the owner will receive notice of any public hearings, all project correspondence will be sent to the designated project applicant.

I/We, the owner of the subject property, hereby authorize

_____ to:
APPLICANT'S NAME

- ☐ Make application for Development Review for the subject property and/or;
- ☐ Act for me in my place and stead at any and all meetings connected with this application, and to take such action as deemed advisable in connection with this application.

Owner's Signature: _____ Date: _____
(Owner agreements not acceptable in lieu of signature)

OWNER'S NAME	PHONE
STREET ADDRESS	FAX
CITY, STATE ZIP	

TO BE COMPLETED BY CITY STAFF

REVIEW LEVEL AUTHORITY:
☐ A ☐ B ☐ C

SPECIFIC PLAN AREA:
☐ W.T.C.S.P. ☐ UPTOWN
☐ WHITTIER BOULEVARD SPECIFIC PLAN
☐ REDEVELOPMENT PROJECT AREA

ISSUED BY: _____

RECEIVED BY: _____

DATE: _____

FEE: $ _____ (ACT. PL 162)

Development Review

Application Checklist

PLANNING DIVISION
13230 PENN STREET
WHITTIER, CALIFORNIA 90602-1772
PHONE (562) 464-3380 FAX (562) 464-3509
www.cityofwhittier.org

All applications require the items below. Additional items are required depending on the application review level, and are listed in section "G." Some checklist items are further explained in the sidebar to the left. The sidebar also includes other notes and tips to ensure your application is as complete as possible.

IMPORTANT NOTES

- All required items must be included or accounted for when you submit your application
- Incomplete submittals will delay the review process
- Plans must be designed to preserve existing parkway trees. Parkway trees may only be removed in cases of disease or hazardous circumstances. For information, contact the Park Department at (562)464-3375

Applicant vs. Owner

If you are not the owner of the property, be sure to complete the Owners Affidavit section of the application

Paper size vs. drawing size

Please keep the drawings size proportionate to the paper size (i.e. do not submit 8" x 10" drawings on 24" x 36" sheets)

What is a site plan?

A site plan is a scaled drawing showing the subject property from a bird's eye view. A sample site plan is included in this packet.

To the right is a list of all the elements you will need to include on your plan. In addition to this information, other exhibits, such as topographic maps and detail sheets may be required. Call the Planning Division if you're not sure if all these items are required.

As noted above, existing parkway trees must be preserved in place, unless a waiver from the Park Department is secured.

__ **A. Application Form**
Fill out completely

__ **B. Site Photographs**
Provide 4" x 6" minimum-size color photographs showing all sides of the property. Also include adjacent properties, and if required, the entire streetscape. Please do not mount the photographs.

__ **C. Architectural Drawings**
❑ **Site** ❑ **Elevation** ❑ **Floor** ❑ **Roof** ❑ **Landscape** plans, as follows (drawing and lettering must be clear and readable):

PLANS MUST BE FOLDED AND NO LARGER THAN 8 ½ x 11

1. 11 full-size plan sets (11" x 17" min., 24" x 36" max.)
2. 1 reduced-size plan set (8½" x 11" or 8½" x 14")
3. 1 full-size, mounted set of elevations, colored

Site Plan must include:

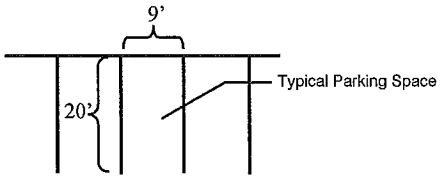
A. Architect's name and contact information
B. Project address
C. North arrow (orient to top of sheet if possible)
D. Graphic and fractional scales
E. Date of drawings (including subsequent revisions)
F. Property line dimensions
G. Required setbacks for the zone
H. Location and names of adjacent streets
I. Public improvements within the parkway
J. Structure location(s), dimensions and floor areas
K. Setback dimensions
L. Dimensioned driveway widths (include curb cuts)
M. Parking configuration
N. Curbs, sidewalks and walkways (if applicable, after dedication)
O. Walls and fences, existing and proposed (include height)
P. Ground-mounted equipment and screening
Q. Exterior lighting
R. Signs

Parking space tabulation

Within the parking area layout, include the number of parking spaces in each parking row

Uniform parking space size

Indicate on the plan the typical parking spaces size (i.e. 9' x 20'). This is often done by dimensioning one of the parking spaces and labeling it "typical parking space"

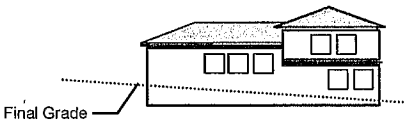


Lot coverage is the square footage of all overhead structures on the site divided by the total lot area

Floor area ratio is the square footage of all *livable* floor area (including second stories) divided by the lot size

What are elevations?

Elevations are dimensioned drawings of the structure as a person standing in front of it would see it. Elevations must accurately represent the final building product.



What is the purpose of a conceptual landscape plan?

This plan is a site plan that gives a clear impression of how the landscaping for the development will look. If your project is commercial or industrial in nature, your staff planner will advise you on whether the ***City of Whittier Landscape Guidelines*** apply. These guidelines discuss the conceptual landscape plan in detail, and contain specific landscape development policies and standards.

Project Tabulations, including:

Non-Residential:

- Net lot area
- Number of proposed structures on site and gross floor area
- Number of stories for each structure
- Parking spaces required, existing and proposed
- Area of landscaping (call out separately for parking area)
- Legal description

Residential:

- Net lot area
- Number of units and stories proposed
- Area for each unit, and number of bedrooms
- Number of parking spaces covered and uncovered—proposed, existing and required
- Area of private and common open spaces
- Legal description
- Lot coverage

Floor Plan must include:

A. All Floors
B. Room type and dimensions
C. Balconies and decks, dimensioned
D. Window size and type
E. Door locations

Elevation Drawings must include:

A. Must be drawn to show final grading
B. Sections through areas of grade differentials
C. Dimensioned drawings of all relevant elevations
D. Dimensioned building height
E. All architectural details intended for final construction, including wall-mounted lighting
F. Front elevations of immediately adjacent structures
G. Landscaping with approximately three years of growth
H. Proposed signs (wall, projecting and freestanding)
I. Roof pitch

Roof Plan must include:

A. Location of HVAC units, if placed on the roof
B. Screening of HVAC and other roof-top equipment

Conceptual Landscape Plan

Show the location, types and container sizes of all proposed plant materials, including trees, shrubs and groundcover. Also show existing trees to be removed, and indicate type and trunk diameter.

___ **D. Colors and Materials Board**

Submit one foam core or similar type board no larger than 18" x 24" with samples or accurate photographic representation of all proposed exterior materials and colors. On the board, include the project address and the designer's name and phone number. Identify the manufacturer and the item specification number of each sample.

___ **E. Environmental Assessment Form**

Complete this form if necessary

___ **F. Environmental Fees**

Remit the following fees, if required:

- ❑ Environmental Initial Study (EIS) and Negative Declaration (ND) fee of **$1,453***

  **Planning Staff may hire an outside consultant to complete this study, in which case a deposit equal to 120% of the consultant's budget estimate will be required.*

- ❑ One checks for **$50** made out to the **Los Angeles County Recorder**

___ **G. Project Level Requirements**

The following items must be submitted depending on whether your project level is A, B or C:

❑ **Level A projects:**

An application filing fee, as follows:

___ Freestanding Signs, Awning, Fence/wall:	$160
___ Master Sign Program:	$1191
___ Adds; mjr. Remod; const.up to 5K sq.ft; park.lots:	$950

❑ **Level B projects:**

- For project fees, refer to the Planning Division Services Fees
- A property radius map, and the names and addresses of surrounding property owners, as follows:
  - ➢ The two properties on either side
  - ➢ Five properties to the rear
  - ➢ Five properties across the street

  The names and addresses of the property owners must be from the latest equalized assessment roll of the County Assessor, and must be printed on **Avery 5160 or equivalent** labels.

❑ **Level C projects:**

- For project fees, refer to the Planning Division Services Fees.
- A property radius map, and the names and addresses of all surrounding property owners within 300 feet of the subject site. The names and addresses of the property owners must be from the latest equalized assessment roll of the County Assessor, and must be printed on labels according to the sample attached.

Property radius map information

Submit a map at a scale of 1" = 200' or 1" = 100', showing all of the lots within **300 feet** of the boundaries of the subject property.* Number each of the lots consecutively and assign the number on each lot to the corresponding entry on the property owner's list (do not use assessor's parcel numbers for this purpose.) The attached sample map provides further instruction.

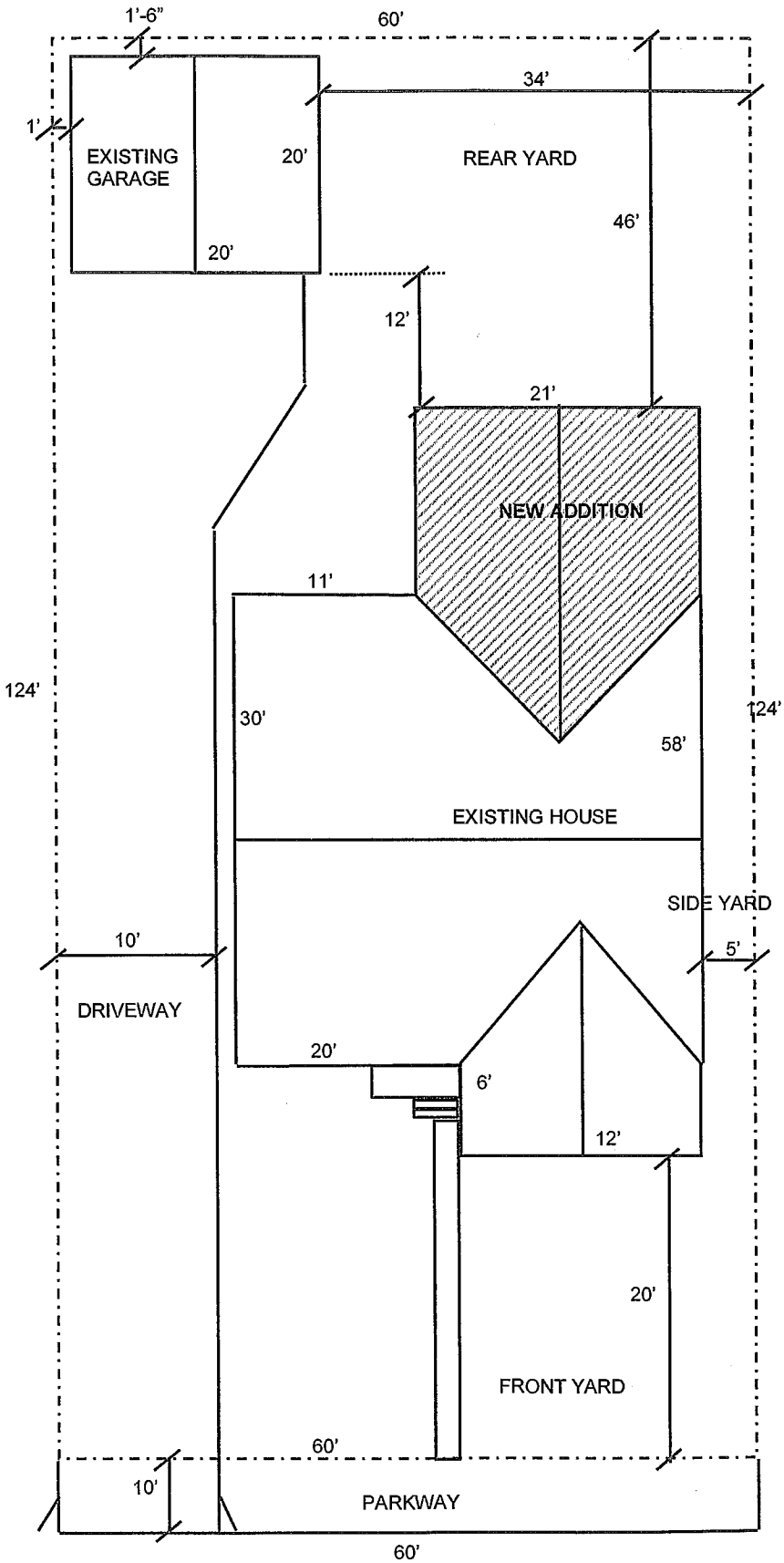
Property Owners List From the latest equalized assessment roll of the County Assessor, compile a typewritten list of the names and mailing addresses of the owners of all lots or parcels within 300 feet of the boundary of the subject property as shown on the vicinity map. Using **Avery 5160 or equivalent labels**, arrange the entries so they are numbered consecutively, corresponding with the numbers of the lots on the vicinity map. The property owners list should include address labels for the applicant, owner, and anyone associated with the project who may require a public hearing notice. ***(Note: Zip Codes must be included.)***

* Many companies provide this service for a reasonable cost. The Planning Department can provide you with a list of some firms which produce radius maps and ownership lists.

SAMPLE SITE PLAN

The Site Plan submitted for your home improvement project should show the following:

1. Location and dimensions of the lot lines
2. Location and size of all existing and proposed structures including front, side and rear setback dimensions, as well as structure dimensions
3. Location and width of driveway
4. The Site Plan should be drawn to scale and show a north arrow
5. The street address and name should be clearly indicated
6. The parkway width should be clearly indicated, and all public utilities should be shown
7. A floor plan and elevations may be required
8. All mechanical equipment (i.e. a/c units, water softeners, etc.) should be clearly indicated
9. Other information may be required as deemed necessary by the Planning Division
10. For additional information concerning the preparation of a Site Plan or requirements, or City Zoning Laws, please contact the Planning Division at (562)464-3380.



STREET NAME AND ADDRESS
Scale: 1/8 in. = 1 Foot

N O R T H

EXHIBIT Q

INFORMATION ON THE SAVAGE CANYON LANDFILL

Graffiti Abatement Program
Public Works Issues Form
Recycling
Street Sweeping
Traffic Engineering
Trash & Water
Proposed Utility Fee Increases FAQ

Landfill Services

Savage Canyon Landfill is open to residents and businesses located in the City of Whittier. Savage Canyon Landfill only accepts waste generated from the City of Whittier and its contract haulers. Whittier residents must provide proof of residency with either a valid California Identification or a recent utility bill. Please contact the landfill gate house at (562) 698-1223 or the Landfill Office at (562) 907-7750 for more information.

Operation

The hours of operation are 7:30 AM to 3:00 PM, Monday through Saturday except holidays.
The landfill is closd on the following holidays:

- New Years Day
- Memorial Day
- Fourth of July
- Labor Day
- Thanksgiving
- Christmas Day

The landfill may be subject to closure to the public on rainy days. Due to permit tonnage limitations, the landfill may close early on additional days if necessary. Please contact the landfill gatehouse at (562) 698-1223 for more information.

Savage Canyon Landfill does not accept any of the following: green waste, hazardous materials, appliances, tires, liquid waste, pesticides, herbicides, automotive products, paints, solvents, acids, caustics, batteries, electronic waste, CRTs, explosives (ammunition), compressed gas cylinders, contaminated soil and radioactive waste. If you have any questions regarding types of material that can be disposd at the landfill, please contact the landfill gate house at (562) 698-1223 for more information.

Savage Canyon Landfill Rates

- Trash - $38.00/ton
- Inert - $43.85/ton (dirt, asphalt, rocks, concrete)
- Hard to Handle - $53.90/ton (any waste that would require additional landfilling process i.e. large pieces of concrete, stumps)

Fill Dirt

Due to new California Regional Water Quality Control Board regulations, Savage Canyon Landfill can no longer accept fill dirt without proper documentation. The property owner/representative proposing to dispose of soil must obtain: (1) a Soil Information Form and (2) a Soil Self Certification Form from the City. The Soil Information Form must be completed and submitted to the City. It is to include a description of the site with historical information relating to the existing and any known previous site uses and improvements, any previous unsupervised environmental uses, a location map and other related documents. The property owner/representative must notify the City of the intent to dispose of soil at the landfill in advance. To obtain more detailed information call the landfill directly at (562) 698-1223.

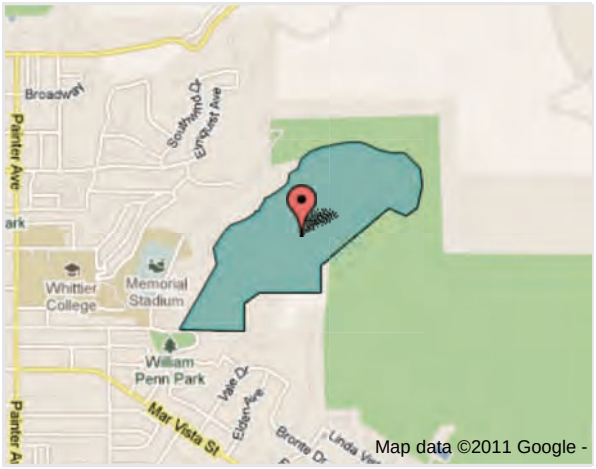
Appendix M

Landfill Saturday Residential Discount

Special Saturday Residential Discounts, with proper I.D. showing a Whittier residential address, entitles you to one dump per Saturday up to a 3/4 ton pick-up truck. A nominal payment is made at the Landfill Gatehouse upon entering. Call (562) 698-1223 for fees charged.

Fact Sheet

1.	**Site ID:**	18
2.	**Site Name:**	SAVAGE CANYON LANDFILL
3.	**Alt. Site Name:**	N/A
4.	**Site Type:**	MUNICIPAL SOLID WASTE LANDFILL
5.	**Status:**	OPEN
6.	**Site Website:**	N/A
7.	**Site Address:**	13919 EAST PENN STREET, WHITTIER, CA 90602
8.	**Alt. Site Address:**	N/A
10.	**Site Mailing Address:**	N/A
11.	**Site Contact Phone:**	(562) 907-7750
12.	**Site Email:**	MSMITH@WHITTIERCH.ORG
13.	**Owner Name:**	CITY OF WHITTIER
14.	**Owner Contact:**	ANN-MARIE HAYASHI
15.	**Owner Address:**	13230 EAST PENN STREET, WHITTIER, CA 90602
16.	**Owner Phone:**	562-464-3510
17.	**Owner Email:**	N/A
18.	**Operator Name:**	CITY OF WHITTIER - DPW
19.	**Operator Contact:**	N/A
20.	**Operator Address:**	13914 PENN STREET, WHITTIER, CA 90602
21.	**Operator Phone:**	(562) 464-3512
22.	**Operator Email:**	JRODRIGUEZ@WHITTIERCH.ORG
23.	**Waste Accepted:**	CONSTRUCTION & DEMOLITION; GREEN MATERIALS; HOUSEHOLD TRASH; INDUSTRIAL NON-HAZARDOUS; INERT
24.	**Solid Waste Facility Permit:**	19-AH-0001
25.	**Beginning Operation Date:**	NOVEMBER 1989
26.	**End Operation Date:**	ESTIMATED DECEMEBER 2048
27.	**Disposal Area(Acre):**	132
28.	**Max. Depth of Fill(Ft):**	N/A
29.	**Present Use:**	LANDFILLING OPERATION
30.	**Visiting Restriction:**	OPEN ONLY TO CITY OF WHITTIER
31.	**Permitted Capacity(tpd):**	350
32.	**Remaining Capacity(Millions):**	ESTIMATED 6.9 MILLION CUBIC YARDS OR 3.3 MILLION TONS AS OF DECEMEBR 2009
33.	**Local Enforcement Agency:**	COUNTY PUBLIC HEALTH



Related Documents

Active Landfills Profile for Savage Canyon Landfill (19-AH-0001)

Overview | Operations | Financial | Contacts | Map

Profiles Home Overview Profile New Landfill Help

General Information

Jurisdiction:	Whittier
County:	Los Angeles
Size:	13.0 Sq./Miles
Geographic Area:	Southern California
Rural/Urban:	Urban
LEA:	County of Los Angeles
Board Action (Recent Agenda Item)	Search by Name Search by Swis Number

State Representatives

1 Senate District(s) ***More...***

Calderon, Ronald S. (D) Senate District 30

2 Assembly District(s) ***More...***

Calderon, Charles M. (D) Assembly District 58

Mendoza, Tony (D) Assembly District 56

Site Information (More)

Latitude:	33.97990	Longitude:	-118.01710

Name: Savage Canyon Landfill

Location: 13919 East Penn Street
Whittier CA, 90602

Telephone: (562) 464-3510

U.S. EPA Facility Registration System ID: 110012694851

Operator(s)

City Of Whittier
13230 East Penn Street Whittier, CA 90602

Phone: (562) 464-3510 Fax: N/R

Owners(s)

City Of Whittier
13230 East Penn Street Whittier, CA 90602

Phone: (562) 464-3510 Fax: N/R

Permit Information

Permit Type:	Solid Waste Facility
Permit Status:	Permitted
Operational Status:	Active
Permitted Maximum Disposal:	350 Tons/day
CIWMB Board Concurrence Date:	2/1995
Next Permit Review Date:	1/2014
Permitted Site Area:	132
Permitted Disposal Area:	132

Associated Facilites

No Associated Facilites

Capacity Information (2000) (Closure Date: 12/31/2048)

Total Estimated Permitted Capacity:	Total Estimated Capacity Used:		Remaining Estimated Capacity:	
14,947,962 (cubic yards)	5,428,722 (cubic yards)	36.3%	9,519,240 (cubic yards)	63.7%

Surrounding Land Use (Adjacent to facility as noted during inspections)

- Commercial
- Forest
- Open Space - Irrigated
- Open Space - Nonirrigated
- Other
- Park
- Recreational
- Recreational - Irrigated
- Residential
- Restoration
- Suburban
- Urban

Statewide Tipping Fee Information (Per Ton) (Survey 2000)

	MSW	Tires	Green Waste	C&D
Lowest	$2.50	$42.00	$0.45	$5.00
Highest	$85.30	$280.00	$85.30	$83.00
Median	$34.10	$95.00	$27.00	$36.50
Weighted Average	N/R	$67.67	$24.29	$29.65

Distance to Nearest Residence: 0.02 Miles (approx. 106 Feet)

Site Tipping Fee Information (Survey 2000)

MSW	$38 Per Ton
Green Waste	N/R
Construction/Demolition	$43.85 Per Ton
Tires	N/R

California Environmental Quality Act (CEQA) Information - (CERES)

State Clearing House Number	2010011049
Lead CEQA Agency	Planning Department
Document Name/Project Title	Matrix Whittier Main Oil Field (near Savage Cyn)
Date Received	10/6/2010
CIWMB Comment Date	12/6/2010

State/Regional Water Quality Control Board Information

Waste Discharge ID#:	5D150303001
Los Angeles Regional Water Quality Control Board	http://www.swrcb.ca.gov/rwqcb4/
Water Resources Control Board	http://www.swrcb.ca.gov

Waste Stream Information Profiles http://www.calrecycle.ca.gov/Profiles/
CalRecycle Webmaster: Webmaster@calrecycle.ca.gov (916) 341-6141

Conditions of Use | Privacy Policy
©1995, 2011 California Department of Resources Recycling and Recovery (CalRecycle). All rights reserved.

Active Landfills Profile for Savage Canyon Landfill (19-AH-0001)

Overview | Operations | Financial | Contacts | Map

Profiles Home Overview Profile New Landfill Help

Operation Information

Activities

Operational Activites:	Solid Waste Landfill
Year Operations Began:	Pre-1950
Hours of Operation:	
Monday:	7:30 AM-3:00 PM
Tuesday:	7:30 AM-3:00 PM
Wednesday:	7:30 AM-3:00 PM
Thursday:	7:30 AM-3:00 PM
Friday:	7:30 AM-3:00 PM
Saturday:	7:30 AM-3:00 PM
Sunday:	NA-NA
Open to Public:	Normal Hours
Scales at Site:	Yes
Commerical Haul:	Normal Hours
Self Haul:	Normal Hours
Alternative Daily Cover Permitted:	Geosyn Blanket

Waste Types Accepted/Permitted

Construction/demolition	Green Materials
Industrial	Inert
Mixed municipal	

Note: Please contact the site to verify this information and special handling instructions, if any.

Landfill Gas Collection and Disposal

Monitoring Frequency:	Quarterly
Collection System:	Active
Disposal:	Active
Energy Generation:	NA

Leachate Information

Leachate Monitoring:	Yes
Leachate Collections & Disposal System:	Yes

Landfill Liner Construction (all or part)

No Liner:	No
Compact Soil Liner:	Yes
Subtitle D:	Yes
Geosynthetic:	Yes

Waste Type Disposal Origin Survey Frequency

Survey Frequency:	N/R

CalRecycle Inspections (Last Three)

Inspection Date:	11/16/2010
Inspection Date:	5/20/2009
Inspection Date:	11/29/2007

Inspections (last three recorded) Contact LEA for Additional Information

Inspection Period	**Monthly**
Inspection Date:	5/26/2011
Inspection Date:	4/21/2011
Inspection Date:	3/24/2011

Listed on CalRecycle (Inventory of solid waste facilities violating State minimum standards)

Listed: NO

Notice And Orders

Notice and Order None

Jurisdictions Sending Waste to This Facility (Tons for year 2009)

	ADC Tons	*Total Tons*
Bell Gardens	0.0	20.0
Bellflower	0.0	514.0
La Habra	0.0	27.0
La Mirada	0.0	0.0
Los Angeles-Unincorporated	0.0	4,051.0
Norwalk	0.0	2,585.0
Santa Fe Springs	0.0	16,924.0
Whittier	0.0	50,928.0

Disposal Tonnages (Tons)

Microsoft VBScript runtime error '800a005e'

Invalid use of Null: 'cDbl'

/profiles/Facility/Landfill/LFProfile2.asp, line 334

Quarter	**2007**	**2008**	**2009**
First	0	0	18,920
Second	0	0	18,841
Third	0	0	18,729
Fourth	0	0	18,558

EXHIBIT R

URBEMIS MODEL OUTPUT FOR PAD GRADING WITH SOIL EXPORT – LBS/DAY AND TONS/YEAR

Page: 1

6/26/2011 2:21:22 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Susan\Application Data\Urbemis\Version9a\Projects\Whittier oil - site grading only.urb924

Project Name: whittier oil field

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013 TOTALS (lbs/day unmitigated)	0.55	6.61	2.56	0.01	170.88	0.26	171.13	35.69	0.23	35.93	1,273.23

6/26/2011 2:21:22 PM

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/1/2013-6/28/2013 Active Days: 129	0.55	6.61	2.56	0.01	170.88	0.26	171.13	35.69	0.23	35.93	1,273.23
Mass Grading 01/01/2013-06/30/2013	0.55	6.61	2.56	0.01	170.88	0.26	171.13	35.69	0.23	35.93	1,273.23
Mass Grading Dust	0.00	0.00	0.00	0.00	170.83	0.00	170.83	35.68	0.00	35.68	0.00
Mass Grading Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading On Road Diesel	0.55	6.61	2.56	0.01	0.04	0.26	0.30	0.01	0.23	0.25	1,273.23
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase Assumptions

Phase: Mass Grading 1/1/2013 - 6/30/2013 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 6.9

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1363 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 300.4

Off-Road Equipment:

Page: 1

6/26/2011 2:22:39 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\Susan\Application Data\Urbemis\Version9a\Projects\Whittier oil - site grading only.urb924

Project Name: whittier oil field

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013 TOTALS (tons/year unmitigated)	0.04	0.43	0.17	0.00	11.02	0.02	11.04	2.30	0.02	2.32	82.12

6/26/2011 2:22:39 PM

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013	0.04	0.43	0.17	0.00	11.02	0.02	11.04	2.30	0.02	2.32	82.12
Mass Grading 01/01/2013-06/30/2013	0.04	0.43	0.17	0.00	11.02	0.02	11.04	2.30	0.02	2.32	82.12
Mass Grading Dust	0.00	0.00	0.00	0.00	11.02	0.00	11.02	2.30	0.00	2.30	0.00
Mass Grading Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading On Road Diesel	0.04	0.43	0.17	0.00	0.00	0.02	0.02	0.00	0.02	0.02	82.12
Mass Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase Assumptions

Phase: Mass Grading 1/1/2013 - 6/30/2013 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 6.9

Maximum Daily Acreage Disturbed: 1

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1363 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 300.4

Off-Road Equipment:

San Gabriel & Lower Los Angeles RIVERS AND MOUNTAINS CONSERVANCY

California Natural Resources Agency

Governing Board of the Conservancy

Frank Colonna, Chair
Environmental Public Member

Dan Arrighi, Vice Chair
Central Basin Water Association

Linda Adams
California Environmental Protection Agency

Denis Bertone
San Gabriel Valley Council of Governments

Barbara Carrera
San Gabriel Valley Water Association

John Laird, Secretary
California Natural Resources Agency

Ana J. Matosantos
Department of Finance

Troy Edgar
Orange County Division of the League of California Cities

Margaret Clark
San Gabriel Valley Council ofGovernments

GloriaMolina
Los Angeles County Board of Supervisors

PatrickO'Donnell
City of Long Beach

Vacant
Orange County Division of the League of California Cities

Ed Wilson
Gateway Cities Council of Governments

Ex Officio Members

RuthColeman
Department of Parks and Recreation

JohnDonnelly
Wildlife Conservation Board

Colonel R. Mark Toy
US Army Corps of Engineers

BryanSpeegle
Orange County Executive Office

ThomasM.Stetson
San Gabriel River Water Master

BernieWeingardt
Angeles National Forest
US Forest Service

Gail Farber
Los Angeles County Department of Public Works

Interim Executive Officer
Valorie Shatynski

July 21, 2011

Via email 7/21/11

Jeffery Adams, Director of Community Development
City of Whittier, Community Development
13230 Penn Street
Whittier, CA 90602-1772

RE: Whittier Main Oil Field Development Project Revised Environmental Impact Report Public Draft

Dear Mr. Adams:

The San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC) is grateful for the opportunity to provide comments on the Revised Draft Environmental Impact Report for the Whittier Main Oil Field Development Project (RDEIR). The RMC was established as an independent State agency within the Resources Agency of the State of California to preserve open space and provide for low-impact recreation and educational uses, wildlife and habitat restoration and protection, and watershed improvements.

The goals of the RMC are described in "Common Ground", the Conservancy's Watershed and Open Space Plan (found at http://www.rmc.ca.gov/plan/intro.html). ***The Plan presents a simple vision for the future: restore balance between natural and human systems in the watersheds.*** The centerpiece of the Plan is a series of Guiding Principles that cities, federal, state and local agencies, communities, groups and individuals can use to plan preservation, restoration and establishment of future open space, water resources, and habitat projects. More than 60 cities in Los Angeles County have adopted this document.

The RMC reviewed and commented on the environmental documents for the above-mentioned project previously distributed last year, as well as the Notice of Preparation in May 2011.

Please address and consider incorporating into the FinalEIR applicable mitigation and comment ideas presented by the RMC in its most response letter May 25, 2011.

The project site is part of a regional corridor, which forms a critical buffer of remaining open space between the San Gabriel Valley and the coastal plain of Orange County. The neighboring Montebello Hills, together with the Whittier Narrows Recreation Area, represent perhaps the most important ecological reserve left on the floor of the Los Angeles Basin. The combination of native habitats in close proximity (coastal sage

Rivers and Mountains Conservancy · El Encanto · 100 N. Old San Gabriel Canyon Road · Azusa, CA 91702
Phone: (626) 815-1019 • Fax: (626) 815-1269 •www.rmc.ca.gov

scrub, chaparral, oak woodland, riparian, freshwater marsh), and the relatively large extent of these habitats makes this area an extremely high priority to the RMC.

RMC-1

The RMC is concerned with the potentially significant biological andrecreational impacts associated with the proposed project. The Whittier-Puente Hills regional habitat block is one of the best examples in thenation of a functional urban habitat area that remains tenuouslyconnected to larger National Forest lands. Any projectdeveloped in the Whittier-Puente Hills regional habitat block must makea major permanent contribution to both the quantity of protected habitatand the quality of habitat. Any project developed in the Whittier-PuenteHills regional habitat block must also maximize efforts to maximizeimmediate and long-term habitat capability in affected parts of theregional habitat block system. The net, post-project condition shouldleave a stronger and larger protected habitat block and the mitigationmeasures should maintain the ecological capability of the currentecosystem throughout the life of the project.

RMC-2

The RDEIR inadequately describes impacts to the Core Habitat within the Preserve. As a result several necessary mitigation measures were not incorporated into the document to minimize or avoid significant biological impacts. This caused the Proposed Project to miss its goal to, "Minimize impacts to the functioning of the Core Habitat of the Preserve." This may have also caused the ProposedProject to miss it goal to, "Minimize environmental impacts from the Project to the Preserve" (p. 2-2).

RMC-3

To achieve these public protections of this regionally and scientifically significant habitat area and recreational resource, the applicant must offer significant mitigation in addition to the proposed mitigations covered in the RDEIR. That mitigation must be offered voluntarily and be included in the Final Environmental Impact Report (Final EIR). This additional mitigation includes more funding for, or acquisition of, habitat lands, creation of an additional safe crossing along Colima Road, and a wildlife movement study. The most recently adopted position letter of the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority) concurs that mitigation should be expanded to bolster these areas.

RMC-4

Another main issue with the RDEIR is that cumulative effects and impacts of the various activities over the life of the project are not adequately addressed in the RDEIR. The RMC asks that cumulative impacts be addressed in detail and mitigated for, in accordance with CEQA, for inclusion in the Final EIR. For example, the analysis of cumulative impacts on the Puente-Chino Hills Wildlife Corridor due tofragmentation of habitat is not adequately addressed in the RDEIR. The RDEIR simply states,"Cumulative impacts to wildlifemovement in the general area would be significant" (RDEIR 4.2-65).

Major losses of habitat have occurred in this area due to housingdevelopment, local landfills, golf courses and cemeteries. Southern California Edison's Tehachapi RenewableTransmission project will take place during proposed oil development. Potential development ofthe Aera property (dubbed the "Missing Middle" for its strategic location between the Puente Hills Open Space area and the Chino Hills State Park),would have major impacts to connectivity along the Puente-Chino HillsWildlife Corridor. The National Park Service is currently studying the feasibility of creating anational recreation area that potentially could include the Puente-Chino Hills. The National Park Service has identified the Puente-Chino Hills Wildlife Corridor as a nationally significant resource for its Mediterranean Habitat as well as the wildlife corridors it provides. The Whittier HillsOil

project would degrade the potential of this area to be included in such a federally designatednational recreation area. Adequate mitigation measures should include replacement of habitatto offset these cumulative impacts.

RMC-5 Page 2-25 of the revised DEIR states that "all roads used within the Preserve would be pavedduring the Design and Construction Phase." If the Arroyo Pescadero loop trail is proposedfor paving, please consider using environmentally-sensitive paving alternatives, such as apolymer emulsion product (following pipeline construction) to reduce aesthetic impacts torecreational users on the Loop Trail and to reduce run off of these roads and into adjacenthabitat and drainages which could impair water quality.

RMC-6 The RMC requests that the Final EIR evaluate the impacts to waterquality due to runoff from paved roads within the Preserve and provide specific mitigationfor significant impacts. The design of these improved roads should be environmentallysensitive through elimination of side-cast materials (excess dirt) and erosion potential.

Air Quality

While measures have been identified that would require the operator to submit and implement afugitive Dust Control Plan to limit exposure to habitat, humans and animals, it is not clear how this would be done. There should be on-siteinspectors for the life of the project to insure compliance.

RMC-7 Mitigation measure AQ-4 requires that at least 500 trees be planted to mitigate for increasesin greenhouse gas emissions, in coordination with the Habitat Authority. Please includeanalysis showing how this number of trees was calculated to fully mitigate for the ProposedProject's contribution of 14,720 metric tons of C02 (Table 4.1-11), and if it does not,how many additional trees should be planted to fully mitigate for this impact. Further, a detailed study and planting plan is requested for the Final DEIR, which demonstrates that planting this number of trees and related flora is feasible, and if not, how the mitigation would be provided offsite. Funds would need to be provided formaintenance and irrigation for any trees planted, generally for five to seven years. The Final EIR should investigate the carbon sequestrationcapacity of other native habitat types, such as coastal sage scrub or chaparral, in addition tothe carbon sequestration capacity of native trees.

Discussion of toxic emissions from the project is limited to theactivities on-site, and not coupled with the additional emissions of the proposed vehicular and truck traffic, traveling to and from the site. The Traffic Study for these activities is inadequate and did not take into consideration existing traffic through-out the one day of study in May, 2010. Additional study days, as well study as over different days of the week, and different months are requested for the Final EIR data. The traffic study was completed during finals week at Whittier College, which is a time when traffic patterns are unusually light, and only during the standard commute times, not the times when there is ongoing truck traffic along City streets during the course of a standard work week with sanitation pick-ups and public works activities. The RMC asks that additional traffic studies along with discussion and mitigation measures for these cumulativeemissionsbe addressed in the Final EIR.

Biological Resources

The project will result in potentially significant direct and indirect, permanent and long-term, "temporary", impacts to the Puente Hills Landfill Native Habitat Preserve (Preserve), including Core Habitat, as identified by the Habitat Authority. The DEIR (p. 4.2-35) describes the importance of this Core Habitat: As shown on Figure 4.2-7, the Project Site and North Access Road...are located in the Core Habitat Management Zone... This Zone constitutes the largest contiguous area in the Preserve that is well-buffered from such "edge effects" as lighting, noise, and intrusions by humans and domestic animals. As a result, this Zone is considered to be an important wildlife nursery site for such species as the bobcat and mule deer...bobcats use the Project Site (i.e., the area west of Colima Road) in the highest density found in the Preserve and that mule deer have the highest activity in this area over the entire Puente-Chino Hills (Haas and Crooks 1999).

RMC-2

As stated in the DEIR (p. 4.2-23), the western portion of the Project Site is closed to the public. The proposed project will introduce new substantial disturbance. Increased levels of drilling operations and human activities in the Core Habitat, which currently have minimal disturbances, would result in substantial impacts to wildlife movement (DEIR, p. 4.2-54). The increased levels of noise, light, human presence, and vehicle traffic, during both the construction and operational phases of the project, could result in significant adverse effects upon a critical wildlife movement linkage (DEIR, p. 4.2-54). Loss and degradation of habitats at the Project Site could be expected to have greater adverse effects upon ecological processes and native wildlife populations than would occur in an area with comparable natural communities that does not occupy such a sensitive location within a natural Preserve (DEIR, pp. 4.2-52).

Of note, the proposed North Access Road would traverse approximately 1.2 miles within the Preserve (plus 1.3 miles within the Savage Canyon Landfill; DEIR, pp. 2.19 to 2-20), and would entail road widening of an existing road, requiring fuel clearance of 10 feet on either side (DEIR, p. 4.2-47). It courses through Core Habitat (DEIR, Figure 4.2-7), and would entail removing coastal sage scrub (DEIR, Figure 4.2-9), affecting coastal California gnatcatchers (a bird species considered threatened by United States Fish and Wildlife Service), including a family group (DEIR, Figure 4.2-3). As the DEIR (p. 4.2-39) states, additional impacts to biological resources, including new and increased usage of roads and disturbances from noise, lighting, and increased human presence, would also cause avoidance of an area and would affect (wildlife) movement (DEIR, p. 4.2-39). Roads are known to fragment habitat and result in wildlife roadkill (e.g., of mammals, amphibians, reptiles, birds, etc.). This access road would increase pressure on an already constricted wildlife movement corridor and therefore, the overall effect would be an increase in impacts to biological resources (DEIR, p. 4.2-54).

The RMC is particularly concerned with the potential for significant indirect impacts to wildlife and other biological resources in the Preserve and beyond. Such impacts include, but are not limited to, noise, vibration, lighting, and human activity. The preponderance of evidence argues for immediate action to manage noise in protected natural areas (Barber et al. 2009, as cited in the DEIR, p. 4.2-20). Noise negatively affects birds and communities (Francis et al. 2009, as cited in the DEIR, p. 4.2-21). Bats have also been shown to be negatively affected by noise (Schaub et al. 2008, as cited in the DEIR, p. 4.2-21). Lighting has also been shown to adversely affect wildlife in numerous ways

(Longcore). Although data on wildlife response to vibration impacts is not well documented (DEIR, p. 4.2-53), it is reasonable to assume that wildlife would be adversely disturbed by vibrations, as they are disturbed by other forms of urbanization. Given the length of the project (30 years), the increase in vehicle traffic through the Preserve, the extent of drilling and redrilling proposed by the Project, and in combination with all the other impacts associated with the project (e.g., loss of habitat, lighting, noise, human activity, etc.), vibrational impacts certainly have the potential to contribute to significant adverse impacts to wildlife.

RMC-3

The Project Site is a hotspot for bobcats, and bobcats are known to be sensitive to urbanization. Furthermore, the project will result in potentially significant impacts to wildlife movement associated with the Colima Road Service Tunnel. According to the DEIR (p. 4.2-7), the project site is known to provide some of the best habitat in the Preserve for the bobcat. The Habitat Authority indicated that the Proposed Project vicinity currently exhibits the highest bobcat activity in the entire Preserve (Habitat Authority July 14, 2011 letter, p. 8). Research indicates that bobcats, known breeders in the Core Habitat Management Zone, are among the species known to avoid urban edges (DEIR, p, 4.2-37).

The Colima Road Service Tunnel has been identified as an important element of wildlife movements in the area and the impacts to wildlife movement would be significant (DEIR,pp. 4.2-54). Bobcats showed the highest level of use recorded at the Colima Service Tunnel, followed by mule deer and gray fox (DEIR, p. 4.2-23). Haas and Crooks (1999, as cited in the DEIR, p. 4.2-23) indicated that this underpass is the only link between habitat to the east (San Miguel Canyon), and habitat to the west (Arroyo Pescadero Canyon). Of the roads surveyed in a certain study, Harbor Boulevard and Colima Road had the highest frequency of roadkills (Elliott and Stapp, 2008, as cited in the DEIR, p. 4.2-25).

A portion of the underground oil and gas production pipelines and metering station would be located near the entrance to the Service Tunnel, which is an important region-wide linkage for terrestrial wildlife attempting to traverse Colima Road immediately east of the Project Site (DEIR, p. 4.2-54). It is expected that wildlife use of the Service Tunnel would be adversely affected by activities in the eastern portion of the project area (DEIR, p. 4.2-54). WCCA is concerned with the construction and operation of the oil extraction facilities near the Service Tunnel, as well as the main drilling activities, which could cause wildlife to seek other at-grade crossings along Colima Road, leading to additional road kill (see Figure 4.2-5, Trails, Oil Field Roads, and Wildlife Roadkill Data).

Although the DEIR states (p. 4.2-53) that "...the proposed actions are not anticipated to substantially inhibit the bobcat and other larger mammal species' use of the La Canada Verde watershed, either as a nursery site or as a movement corridor," the applicant nonetheless should voluntarily use this RDEIR-concluded impact as impetus to increase the overall mitigation package to benefit the regional habitat block.

The Project will result in potentially significant direct and indirect impacts to coastalCalifornia gnatcatchers, and their habitat, including Critical Habitat as designated by theUnited Fish and Wildlife Service.Figure 4.2-3 in the DEIR (Observations of Listed Species and Species of Special ConcernWithin or Adjacent to the Site) shows how the Proposed Project boundary and the1Campbell, K.F., R.A. Erikson, W.E. Haas, and M.A. Patten. 1998. California Gnatcatcher use ofhabitats other than coastal sage scrub:

Conservation and management implications. Western Birds29:421-43. The proposed North Access Road overlaps with gnatcatcher occupied habitat. According to theDEIR (Table 4.2-3), the Project would result in permanent impacts to 4.16 acres, temporaryimpacts to 0.86 acres, and noise impacts to 5.49 acres of coastal sage scrub. Othervegetative plant communities would be permanently and temporarily impacted. Thegnatcatcher regularly uses other habitats and shows seasonal and perhaps daily patternsin such use.1The Project will result in significant impacts which cannot be mitigated, to recreational resources in thePreserve.

RMC-8

The RMC is concerned because the new drilling and operations would adversely affect publicviewsheds in the Preserve and this impact would remain significant, even after mitigation(for example, see Figure 4.6-10).In addition to permanent biological impacts such as direct loss of habitat, the project willresult in ongoing impacts, over a long period of time.During the 30-year life of the Project, levels of noise, light, human presence, and vehicletraffic would increase in all parts of the Project Site, including areas that serve as nurserysites and that have been purposefully set aside for the purpose of conservation of naturalcommunities and their constituent species (DEIR, p. 4.2-53). These impacts, as well asvibrational impacts, would result from construction and operation of oil facilities, as well assubstantial additional construction and operational vehicle traffic in the Preserve, compared with current conditions.

RMC-9

The RMC supports and suggest implementation of the Wildlife Corridor Conservation Authority's (WCCA) proposed voluntary measures outlined below:

(1) Establish a guaranteed fund to acquire habitat connected to Regional Habitat Block

Over the life of the project a minimum of $15,000,000 must be provided for additional habitat protection. Without deep understanding about the project's financial structure and uncertainty about both monetary inflation and the price of oil, it is difficult to lay out when the funding must be made available to public agencies for land acquisition. However, the current ecological viability of the Whittier-Puente Hills regional habitat block is priceless. WCCA proposes that $2.5 million be deposited as once the permits for site construction have been issued. Five million dollars of additional funding would be deposited within one year of the release of the first payment. Every year thereafter on that anniversary date, the applicant would release $2.5 million to public agencies for land acquisition in areas prescribed in the FEIR. The prescribed acquisition area should be between Tonner Canyon and the western tip of the contiguous Whittier Hills habitat block. This funding should be held in trust by a combination of the Habitat Authority and WCCA. If a deal can be struck on the Aera property all unallocated funding should be designated for such an acquisition. If such a deal is not struck, the Habitat Authority should receive 75 percent of the funding and WCCA 25 percent to allow for acquisitions located east of the Habitat Authority's jurisdiction. Neither agency should be allowed to spend the funding without demonstrated, publically disclosed written consultation with U.S. Fish and WildlifeService and California Department of Fish and Game.

(2) Establish a guaranteed fund to maintain/manage habitat connected to Regional HabitatBlock

WCCA proposes that $2 million be deposited for the management/maintenance of habitat between Tonner Canyon and the western tip of the contiguous Whittier Hills habitat block.The Habitat Authority should receive 75 percent of the funding and WCCA 25 percent. Nolater than three years after the issuance of permits for site construction,$1 million should be deposited. No later than one additional year later, another $1 millionshould be deposited.

(3) Establish a guaranteed fund to restore habitat connected to Regional Habitat Block

In addition, a fund should be established for restoration within the Puente-Chino Hillswildlife corridor between Tonner Canyon and the western tip of the contiguous Whittier Hillshabitat block. No later than one year after the issuance of permits for site construction, $750,000 would be established in a fund for Habitat Authority to conducthabitat restoration. No later than three years after that, an additional $1 million would bedeposited in the fund. This funding would be allocated solely to the Habitat Authority.

(4) A wildlife movement study should be undertaken to address potentially significantwildlife movement impacts associated with the Project.

RMC-9

Because of the potentially significant impacts to wildlife movement, and especially tobobcats, in the Preserve and in the Puente-Chino Hills, a scientifically rigorous study shouldevaluate wildlife movement of bobcats and other wildlife prior to Project construction, andduring implementation of the Project. Results from this study could serve as a study aidand guide for management of the open space once the project starts.

(5) Recreational activity should be managed in concert with the Project.

The DEIR states that impacts from the Project could be partially mitigated by closing theArroyo San Miguel trail that utilizes the tunnel to recreational use, at least during the mostintensive activities, such as drilling or construction (DEIR, p. 4.2-54). This is proposed asa mitigation measure in the DEIR (BIO-4n, p. 4.2-60). Closing trails and restrictingrecreational access is not preferred. To avoid or minimize any closing of trails, WCCArecommends that one additional round culvert, 12-feet-wide, be provided along anotherlocation on Colima Road as mitigation for recreational use. This should be done within twoyears of the issuance of the first permit that allows any site disturbance. If the ColimaService Tunnel must be closed to recreational use, then it should be closed for a limitedtime period, i.e., six months, at the beginning of construction so animals can adjust to thenew construction conditions.It is critical that a measure be included in the California Environmental Quality Act document to provide additional funding for ranger patrol to manage existing and futurerecreational use, including dogs.

(6) There should be limitations on any extension of the oil lease.

If the DEIR describes the project as a 30-year project, and the impacts are analyzed assuch, then the project should in fact be no longer than 30 years. Our comments arecalibrated based on a 30-year project. WCCA's recommended additional projectmeasures reflect that timeframe. The ecological system cannot sustain much more, if thelease is extended beyond 30 years. There absolutely has to be a preserved core habitatin order to keep the Puente-Chino Hills wildlife corridor system viable.To address this issue, the lease should not be allowed to be renewed unless the Aeraproperty is completely acquired and preserved, including the establishment of at least a $2million maintenance endowment. If the Aera property is acquired and preserved, then theoil lease should be limited to an additional 10-year maximum renewal.

RMC-9

(7) There should be additional construction timeframe limitations.

Construction should be limited to weekdays only, and construction hours should be limitedto 7am to 5 pm to minimize impacts to recreational users (people), wildlife and surrounding communities through which construction vehicles must pass. In addition, seasonal restrictions should be implemented to avoid coastal California gnatcatcher nesting season.

(8) Significantly more stringent wildfire prevention contingencies should be developed based on the types of equipment that are used around the oil field in order to reduce risks of wildfires.

Incorrect Use of Baseline Biological Conditions

The RDEIR states that prior oil drilling activities did not result in significant, long-term, adverse effects on the local wildlife populations, and therefore the currently Proposed Project will not result in those impacts as well. First, data which supports the position that the prior drilling activities did not result in adverse impacts are not provided, making this statement inappropriate. Secondly, it is inappropriate to use previous oil drilling activities as a baseline for conducting current impact analysis which is required per CEQA Guidelines. The Proposed Project should be analyzed according to existing conditions to establish the baseline, and the project analyzed for individual and cumulative impacts. Although the Proposed Project vicinity currently exhibits the highest bobcat activity in the entire Preserve, it does not mean that this was the case when previous oil drilling activities were occurring. The RDEIR does not cite any data to confirm the assertion that previous oil activities didn't have an adverse effect on wildlife. It is unknown whether wildlife avoided the oil activity and instead persisted in other undeveloped habitats surrounding the oil drilling activities, or that these populations have recovered or returned to the area. Additionally, during previous oil drilling activities, there was more undeveloped habitat available in the region. In the past 50 years alone, areas totaling the approximate size of the entire Puente Hills Preserve (nearly 4,000 acres) have been converted from natural habitat to developed areas (residential developments, golf courses, landfills, cemeteries), leaving what remains to be of vital importance to the persistence of native habitat and wildlife populations in the Puente Hills. In addition, during previous oil drilling activities

RMC-10

there was less recreational activity in the Preserve than exists today, due to public access restrictions on lands that were previously privately owned (such as Rose Hills Cemetery property), meaning that there was less disturbance to wildlife on adjacent lands.

Noise Impacts to Mammals Not Addressed

RMC-11 The RDEIR did not include in its Core Habitat impact analysis any information about how noise from the Proposed Project could affect medium and large mammal species. Page 4.2-20 summarized noise issues related to wildlife, but focused only on birds and bats, and did not include evaluation of medium or large mammals. However, the RDEIR did include a quote from a study stating that "the preponderance of evidence argues for immediate action to manage noise in protected natural areas" (p. 4.2-20). In addition, a study cited in the revised DEIR (Barber, et al., 2009) found that a one-decibel (dB) increase in existing sound level reduces the distance that an animal can detect something by 11 percent, and reduces the area in which an animal can listen by 21 percent; increases of up to three dB can reduce the listening area for an animal by 50 percent. This reduced area would impact an animal's ability to detect and avoid predators, and to detect and capture prey. Increased noise from the Proposed Project would compound existing noise levels present in the Preserve and impact wildlife, particularly during the Construction phase.

Hydrology & Water Quality

RMC-12 Given the substantial increase in water demand and continued water uses required for the life of this project, the DEIR should identify measures to reduce water consumption, monitor existing water consumption, and implement further reductions in the future. Measures such as water recycling and water conservation practices should be identified. The Final EIR should address impacts to the development due to the severe water shortage in Southern California. The site does not contain an identified source of reclaimed water; therefore claims regarding this issue are problematic.

Mitigation Measure WR-2a lists several measures that would be used to protect exposed soilsfrom erosion, control sedimentation, and stabilize soils. The measures listed include the useof geotextiles, mulches, hydroseed, drainage swales, and straw wattles. These materialsshould be certified to be free of invasive plants and seeds.

In order to support a more sustainable development that addresses some of the issues mentioned above, the RMC encourages projects that comply with existing water quality standards and waste discharge regulations set forth by the United States Environmental Protection Agency (EPA), the State Department of Health Services (DHS), the Regional Water Quality Control Board, and the Los Angeles County Health Department. The RMC supports development strategies that incorporate Low Impact Development Principles, and encourages the City and developer to integrate these elements into its design where possible.

Key Principles of Low Impact Development - A number of key principles characterize low impact development:

- Decentralize and micromanage urban runoff to integrate water management throughout the watershed.
- Preserve or mimic the ecosystem's natural hydrologic functions and cycles.

- Emphasize a distributed, not concentrated, control of stormwater.
- Account for a site's topographic features in its design.
- Reduce impervious ground cover and building footprint.
- Maximize infiltration on-site.
- If infiltration is not possible, then capture water for filtration and/or reuse.

Geology and Soils

RMC-13 Section 4.4 Geological Resources is wholly inadequate. Although long descriptions of conditionsthat could exist are included, no specific data is given for various geological hazards for theproposed site, pipeline areas or alternatives. Geotechnical studies were reportedly done for theprevious proposed location but were not available in the DEIR. The proposed site in this RDEIRis not the same and no new site specific geotechnical studies were completed (Statement on 4.4-26 in GR-1c). Site specific geotechnical studies must be included in the Final EIR and before finaldecisions on the project are made so they can be evaluated by outside parties.

There is no map to indicate locations of faults relative to the project locations. Analysis ofearthquake hazards is inadequate. Most recent data on seismic hazards must be included anddocumented in the Final EIR. It is impossible to determine what the hazards are without a geotechnicalreport for the proposed site and pipelines. Maximum ground accelerations for the project site(Table 4.4-1) should include Puente Hills Blind Thrust. No discussion of the Whittier-ElsinoreFault in the area is included.

Environmental Justice

RMC-14 All of the Environmental Justice analysis is based on 2000 census data. Since 2010 census data isavailable, the analysis of this section needs to be redone to include data that reflects thecommunity today and not the community ten years ago. Shifting of access to the project site fromCatalina Ave. to Penn St., a longer more indirect route shifts the burden of this project from ahigher end residential area to a denser area of mixed residential and multiple-unithousing.

Project Alternatives

The North Access Road

RMC-15 Catalina Road is feasible as the primary access road forthe proposed project. It is by far the shortest and most direct route.

Use of the Loop Trail

RMC-16 The Loop Trail, as described in the RDEIR is totally unacceptable.It is also proposed as a secondary fire access road, which would mean a 20 foot road with 10 footfuel modification clearances on either side. This represents a major incursion through yet anotherpart of the Preserve Core Habitat and existing recreational trails and viewsheds.

The secondary or primary access road should be an amended Loop trail which drops south assoon as feasible after the road leaves the drilling site. The objective should be to

use as much ofthe existing access road on the south boundary of the Habitat Authority as possible and continueeast to Colima.

The RMC supports consideration of any alternatives that would place theProposed Project outside of the Core Habitat of the Preserve, that would minimize the overall edge effects(including from use of roads within the Preserve), and would place the Proposed Projectalong the edge of the Preserve where edge effects are already occurring due to adjacent landuse activities (as opposed to introducing new edge effects into habitat which is currentlymore buffered from edge effects).

Savage Canyon Landfill Alternative

The RMC supports the Savage Canyon Landfill alternative, which would be located onthe very edge of the Core Habitat and on the edge of the Preserve, in an area alreadysubject to substantial disturbance and human activity. The revised DEIR states that thisalternative would have biological disadvantages as it would (l) place construction anddrilling disturbances closer to occupied gnatcatcher habitat, and (2) would place thesedisturbances closer to "High Quality" habitat which could negatively affect wildlifemovement. However, the Biological Resources section of the revised DEIR suggests thatgnatcatchers are not adversely affected by construction activities (p. 4.2-21), therebynegating this argument as a disadvantage for this alternative. In addition, the ProposedProject would require direct removal of occupied gnatcatcher habitat along the NorthAccess Road and would route traffic immediately adjacent to occupied habitat, whereasthe Savage Canyon Landfill alternative would not. Also, the argument that this alternativehas a disadvantage over the Proposed Project due to its proximity to areas mapped ashigh quality habitat is inappropriate. As acknowledged in the revised DEIR (p. 4.2-37),these high quality habitat areas were identified based on their composition of native andnon-native plant species, and were not based on their potential to support wildlifemovement. The non-native composition of habitat is not the only factor dictating thepotential for an area to be used for wildlife movement; other important factors includetopography, habitat structure, species-specific habitat preferences, and human activityand development. Protecting the Core Habitat from direct and indirectProposed Project impacts is much more important than protecting one or two muchsmaller areas mapped as high quality habitat from indirect impacts. Core Habitats are critical for providing wildlife habitat buffered from edgeeffects and facilitating movement through a corridor, and they have higher nativecarnivore abundances. In addition, the Proposed Project's North Access Road would putrelated edge effects much closer to several of these mapped high quality habitat areas.

RMC-17

The revised DEIR acknowledges that the Savage Canyon Landfill alternative would haveless impact to Biological Resources than the Proposed Project (p. 6-33 through 6-35), and
it would have the same amount of significant unavoidable impacts as the ProposedProject (p. 6-54). The analysis of the Savage Canyon Landfill alternative states that it hasa significant unavoidable impact regarding land use because it is unclear if permits can beobtained and they may take a long time to get; however, the feasibility and time frame forpermitting are unknown regardless of whether the Proposed Project or an alternative areimplemented. If the feasibility and time frame of permitting for this alternative weretruly a concern, then it would not have been evaluated as a viable alternative in theRDEIR.

Please include in the Final EIR a further discussion of State and federallaws governing landfill operations, and why permitting for this alternative would beinfeasible. A statement was made recently by landfill officials in the region that such permitting could take up to one year, but in no way inferred that such permitting was not feasible. In addition, although the analysis in Section 6 states that this alternative wouldreduce the life of the Landfill (p. 6-14), it also states that the Landfill will be providingwaste disposal to the City for the next 45 years; since the Proposed Project (lease period)only has a lifespan of 25 years, it is possible that most of this area could again be used forwaste disposal following completion of the Proposed Project. In addition, the royaltypayments received by the City for the Project's oil production operations could be used totransport waste to another landfill site, offsetting the potential reduced life of the Landfill.As such, this impact may not be significant and unavoidable, and would result in fewersignificant and unavoidable impacts compared to the Proposed Project.

The revised DEIR states that drilling from the Landfill site would most likely reduce theamount of oil the Project proponent could access; one of six project objectives for theProject Proponent is to "Maximize oil and gas production from the field, therebymaximizing royalty payments to the City of Whittier." However, CEQA Guidelines stateonly that most project objectives should be satisfied by project alternatives, not all.

North Site Alternative

RMC-18 The RMC also supports further analysis and consideration of the North Siteand associated Hadley Street Access (as discussed in Section 5). Although this is lessfavorable than the Savage Canyon Landfill alternative, as it would require the removal ofnative habitat, it would also place the Proposed Project outside of the Core Habitat. The Proposed Project would be on the edge of the Preserve, and would have a much shorter road and fewerassociated edge effects. If this site was found to reduce the amount of oil the Project proponent could access; one of six project objectives for theProject Proponent is to "Maximize oil and gas production from the field, therebymaximizing royalty payments to the City of Whittier." However, CEQA Guidelines stateonly that most project objectives should be satisfied by project alternatives, not all.

Loop Road Alternative

RMC-19 The RMC does not support the Loop Road Alternative, as it couldsignificantly impact wildlife movement. Although this alternative would minimallyreduce the amount of sensitive habitat removed, would reduce impacts to gnatcatcherhabitat, and would be located outside of the Core Habitat, it would be located in an areathat has been shown to have the highest bobcat activity levels in the entire Preserve, andthe substantial increase in noise and traffic in this area could significantly affect wildlifemovement through the area. And considering that the Loop Trail serves as the primaryroute to the Colima Service Tunnel, this alternative could severely limit use of theTunnel, possibly forcing wildlife to cross Colima Road at the upper portion where a largemammal roadkill hotspot has been identified. Although limiting recreational use in thisarea and constructing a wildlife overpass could help reduce this alternative's impacts,these mitigations are unlikely to reduce impacts to less than significant levels as thisalternative could severely compromise the use of the Colima Service Tunnel and adocumented high bobcat activity area.

Catalina Avenue Access Alternative

RMC-20 This is the preferred alternative for theRMC; the RMCstrongly supportsfurther analysis and consideration of the CatalinaAvenue Access Alternative, as discussed in Section 5. Use of Catalina Avenue duringthe construction and/or operations phase would substantially reduce impacts to BiologicalResources, as it would be located on the edge of the Core Habitat and Preserve whereedge effects already occur, would use a much shorter route resulting in reduced edgeeffects, and would not result in impacts to occupied gnatcatcher habitat. This alternativewould substantially reduce impacts to gnatcatchers, wildlife movement and nativewildlife nursery sites. Even if this route is expanded into the ravine next to CatalinaAvenue, as suggested on page 5-16 of the revised DEIR, utilizing this route would stillresult in reduced Biological Resource impacts, even though it may result in impacts to anintermittent creek. The revised DEIR states that this sub-alternative would result in morebiological impacts than the Proposed Project, but does not provide any analysis to supportthis statement, despite the fact that it would significantly reduce impacts regardingwildlife movement, native nursery sites, and gnatcatchers. Catalina Avenue should beused for the test drilling phase and the operations phase, as the revised DEIR notes thattraffic impacts during both of these phases could be mitigated (p. 5-16). TheTransportation and Circulation section notes that traffic impacts during the test drillingphase could be reduce to less than significant with mitigation, and since traffic levelsduring the operations phase would be less than the test drilling phase (Tables 4.7-13 and4.7-15), those impacts could similarly be reduced. This would eliminate long-termimpacts to the Core Habitat through use of the North Access road during the operationsphase, which could result in permanent impacts to wildlife movement and native wildlifenursery sites due to substantial increases in truck traffic and associated effects (increasednoise, human presence, vibration) over the 25- year life of the Proposed Project (leaseWhittier Main Field Revised period), or longer if an extension is later approved. In addition, the Habitat Authoritywould like the Final EIR to consider ways to reduce traffic impacts during theconstruction phase such that Catalina A venue could be used exclusively during thisphase, completely avoiding use of the North Access Road. For example, MitigationMeasure T -1 c requires limits on traffic on Catalina Avenue to mitigate for traffic impactsduring the test drilling phase, and it may be possible to similarly limit traffic during theconstruction phase in order to mitigate for significant impacts, even if it meansprolonging the construction period in order to accommodate the reduced number ofvehicles.

Additional Measures

RMC-21 Additionally, due to the complexity of the measures with a Project of this large scale,consideration should be given to requiring that Matrix Oil hire qualified consultantsincluding a biological consultant with the expertise to administer the mitigation monitoringplan to ensure that all timelines and criteria are met. This consultant should be familiar withCEQA and have experience administering mitigation and monitoring programs.

RMC-22 The City owns other open spaceproperties without conservation easements, the RMC recommends placing conservation easements across all the currently owned properties and those in the future as this Proposed Project could bereplicated elsewhere in the hills of Whittier.

Corridor Conservation Authority's comments dated July 20, 2011 on the Revised Draft Environmental Impact Report for the Whittier Main Oil Field.

Thank you for your consideration of these comments. If you have any questions, please contact me at 626-815-1019 ext 100, or via email, vshatynski@rmc.ca.gov.

Sincerely,

Valorie Shatynski,
Interim Executive Officer

VS:lt/jb

3435 Wilshire Boulevard
Suite 320
Los Angeles, CA 90010-1904

SIERRA CLUB
FOUNDED 1892
Angeles Chapter

(213) 387-4287 phone
(213) 387-5383 fax
www.angeles.sierraclub.org

San Gabriel Valley Task Force and Puente-Chino Hills Task Force

Jeff Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602

RE: Comments on Whittier Main Oil Field Development Project Revised Environmental Impact Report Public Draft

The following comments are submitted on behalf of the San Gabriel Valley and the Puente-Chino Hills Task Forces of the Sierra Club, Angeles Chapter in response to the Revised Draft Environmental Impact Report (DEIR) prepared for Whittier Main Oil Field Development Project.

The San Gabriel Valley Task Force was created to address environmental issues in the San Gabriel Valley. The focus of the San Gabriel Valley Task Force is on potential enhancements of natural areas, open space and recreational opportunities within the San Gabriel Valley, the watersheds of the San Gabriel River and the Rio Hondo, the foothills of the San Gabriel Mountains, and the hills defining the margins of the Valley. The mission of the Puente-Chino Hills Task Force is to work towards the preservation and biological integrity of the Puente-Chino Hills Wildlife Corridor which extends from the Whittier Narrows to the Santa Ana Mountains, as well as providing open-space and recreational activities within the Puente-Chino Hills.

The project site is an especially sensitive and important portion of both the Puente Hills Landfill Native Habitat Preservation Authority Preserve (Preserve) and the greater Puente-Chino Hills region. As such, we continue to oppose this project and all alternatives with their associated, significant and unavoidable impacts on habitats and wildlife. The use of the Northern Access Road is unacceptable due to the impacts on the core area of the Habitat Preservation Authority SCAC-1

We have reviewed the RDEIR for renewed drilling and oil production from lands owned by the City of Whittier and located within the Preserve. We oppose the proposed project and all alternatives described in the RDEIR for the reasons described in the following comments.

- The Sierra Club believes that "no leasing, renewing of unworked leases, development facilities such as pipelines, or disruptive exploratory work such as drilling should be allowed in existing or potential conservation system units where these activities could lead to the destruction of the values the systems were designed to protect" (Sierra Club, National Policy). SCAC-2

- The Task Forces are alarmed at the impacts on special status species by permanent grading for pads, processing equipment, and permanent upgrading of roads with associated fuel modification clearings on each side. The USFWS designates the Project Site as critical habitat for the federally threatened coastal California Gnatcatcher. The project would permanently destroy Coastal Sage Scrub and riparian habitat for this protected species. In addition, the La Canada Verde SCAC-3

Sierra Club Comments on Whittier Main Oil Field RDEIR

Watershed, along the North Access Road, supports 16 to 18 sensitive or indicator species (RDEIR 4.2-37), and the Arroyo Pescadero Watershed, near the Loop Trail Road, supports 19 to 22 sensitive or indicator species (4.2-38). This is not weedy scrub land.

- The protocol survey for the Least Bell's Vireos (Appendix C-1) was conducted in 2010. But, the Least Bell's Vireo population in the nearby protected habitat of Chino Hills State Park has increased substantially in 2011, with many new mating pairs. Therefore, a new survey should be conducted to reflect the updated conditions in the watershed. SCAC-4

- The proposed oil drilling and production contradicts the mission statement of the Puente Hills Landfill Native Habitat Preservation Authority which is "dedicated to the acquisition, restoration, and management of open space in the Puente Hills for preservation of the land in perpetuity with the primary purpose to protect the biological diversity". In addition, the Preserve is currently within a proposed Los Angeles County Significant Ecological Area. SCAC-5

- The proposed project and use of the Northern Access Road would affect the flora and fauna of the Core Habitat Management Zone of the Preserve—considered to be an important wildlife nursery site for deer and bobcats, which use the proposed project site in the highest density in the Preserve (RDEIR 4.2-35), as well as habitat for many other species. Core habitat areas are critical for maintaining wildlife populations in fragmented habitat corridors. The Core Habitat includes areas that generally are not open to the unsupervised public and are to provide undisturbed habitat for wildlife. Permissible activities are only to include "authorized biological survey and some restoration and/or invasive species removal, but no unsupervised public access" (Habitat Authority Resource Management Plan-RMP (RDEIR 4.2-35). The proposed project is incompatible with this RMP. Use of the Northern Access Road is unacceptable. Paving of this road to 20 feet in width, plus 10 feet on either side impacts a 40 foot wide pathway through the Core Habitat zone. SCAC-6

- The proposed project will interfere with movements of wildlife through and within the Preserve, as the undisturbed, quiet, and dark Core Habitat will be considerably smaller if the proposed project is allowed to go forward. Continued drilling and well maintenance will extend these impacts for the life of oil operations in the project areas. To suggest that because large mammal species coexisted with extensive and unmitigated oil operations in the past (RDEIR 4.2-53) is to ignore the fact that the available habitat was much more extensive in the past. This comment requires a study of the cumulative effects of shrinking habitat due to development before it can be concluded the proposed project is "not anticipated to substantially inhibit the bobcat and other large mammal species' use of the La Canada Verde watershed, either as a nursery site or as a movement corridor" (RDEIR 4.2-53). SCAC-7

- The Task Forces are concerned about on-site impacts of drilling, construction, maintenance, and pipeline installation, including light pollution, noise, air quality impacts, and traffic on the affected part of the Wildlife Corridor. While these impacts would be greatest during early stages of the project, they would continue for the life of the project. Drilling 60 wells, one at a time, each taking about 30 days, will spread just the drilling impacts over approximately 5 years. Vibrations from drilling, pumping, construction, and transportation are not fully addressed. Drilling takes place 24 hours a day with night lighting and vibration over a period of potentially 5 years. This will impact activities of nocturnal animals both large (i.e. bobcats, coyotes) and small (i.e. various species of bats). Maintenance of wells would cause impacts throughout the life of the oil operations in the Preserve. To the extent that these edge effects impact the wildlife use of SCAC-8

Sierra Club Comments on Whittier Main Oil Field RDEIR

the existing habitat, it is a taking of that habitat whose mitigation should be replacement of like habitat.

- Table 4.2-3, which identifies the areas of project impacted plant communities (RDEIR 4.2-40) does not include any acreage for wildlife edge effects. The impact on plant communities may be as described, but the impact goes far beyond that to also impact wildlife. There are edge effects from the proposed project, especially the North Access Road, that amount to a permanent taking of land that must be replaced with like habitat. SCAC-9

- Section 4.4 Geological Resources is wholly inadequate. Although long descriptions of conditions that could exist are included, no specific data is given for various geological hazards for the proposed site, pipeline areas or alternatives. Geotechnical studies were reportedly done for the previous proposed location but were not available in the DEIR. The proposed site in this RDEIR is not the same and no new site specific geotechnical studies were completed (Statement on 4.4-26 in GR-1c). Site specific geotechnical studies must be included in the FEIR and before final decisions on the project are made so they can be evaluated by outside parties. SCAC-10

- There is no map to indicate locations of faults relative to the project locations. Analysis of earthquake hazards is inadequate. Most recent data on seismic hazards must be included and documented in RDEIR. It is impossible to determine what the hazards are without a geotechnical report for the proposed site and pipelines. Maximum ground accelerations for the project site (Table 4.4-1) should include Puente Hills Blind Thrust. No discussion of the Whittier-Elsinore Fault in the area is included. SCAC-11

- The analysis of cumulative impacts on the Puente-Chino Hills Wildlife Corridor due to fragmentation of habitat is thin, but the result is fairly clear: "Cumulative impacts to wildlife movement in the general area would be significant" (RDEIR 4.2-65). But the mitigation measures of finally bringing the Sycamore Canyon oil operations up to standards and coordinating construction schedules with the Tehachapi Renewable Transmission Project are wholly inadequate. Major losses of habitat have occurred in this area due to housing development, local landfills, golf courses and cemeteries. The Tehachapi Renewable Transmission project will take place during proposed oil development. Potential development of the Aera property would have major impacts to connectivity along the Puente-Chino Hills Wildlife Corridor. The National Park Service is currently studying the feasibility of creating a national recreation area that potentially could include the Puente-Chino Hills. The Whittier Hills Oil project would degrade the potential of this area to be included in such a federally designated national recreation area. Adequate mitigation measures include the areal replacement of habitat to offset these cumulative impacts. SCAC-12

- The impacts of using the Lambert Right of Way to the new Whittier Greenway Trail along Lambert between Mills and Laurel Ave where the trail diverges from Lambert must be addressed. Is the trail affected by proposed pipeline development? SCAC-13

- The potential effects of accidental spills of toxic drilling muds, fluids, or oil, including contaminated formation water must be described. Such accidents could endanger the flora and fauna of this important habitat, impact special status species, and affect surrounding residential areas. SCAC-14

- The potential for fire associated with oil drilling, production and maintenance must be addressed. While it is normal for chaparral areas to burn, the increased frequency of fire escaping even to SCAC-15

Sierra Club Comments on Whittier Main Oil Field RDEIR

just a portion of the Preserve could lead to permanent changes in the habitat as well as risk to nearby residential areas.

- Cumulative GHG and global warming impacts are inadequately addressed by the RDEIR. The project, and the products of the project, will contribute to greenhouse gas emissions and ~~to~~ global warming. Mitigations should include offsets. SCAC-16

- Recreational use of the trails and outdoor education will be interrupted during this project--development that would particularly affect Arroyo Pescadero and the Core area. The major activity in the Preserve is hiking. A potential long-term closure of the Arroyo Pescadero trail system will take place due to this proposed project. This area is heavily used by hikers, equestrians, and Habitat Authority educational programs. The oil development and production will diminish the quality of outdoor recreation due to noise which will exceed General Plan levels, vibrations, exhaust, and dust generated for the life of the project. The public uses this area to escape from the noise and disturbance of the urban environment—not to encounter noise of drilling, trucks etc. Signs describing to hikers why their hike has been ruined (RDEIR 4.14-11) are, to say the least, inadequate. SCAC-17

- All of the Environmental Justice analysis is based on 2000 census data. Since 2010 census data is available, the analysis of this section needs to be redone to include data that reflects the community today and not the one ten years ago. Shifting of access to the project site from Catalina Ave. to Penn St., a longer more indirect route, shifts the burden of this project from a higher end residential area to a more congested area of mixed residential and multiple unit housing. SCAC-18

- The traffic analysis must be redone for the FEIR. The data presented was obtained during final exams at Whittier College (information from June 30, 2011 meeting). Student attendance is considerably lower during final examinations than during regular sessions. SCAC-19

Sierra Club Comments on Whittier Main Oil Field RDEIR

Project Alternatives

The North Access Road is totally unacceptable and should not be included as part of the project.

- From a common sense standpoint, it makes no sense to access the project from miles away through sensitive habitat and one residential neighborhood just to export the impacts from another residential neighborhood. Reasons why the North Access Road is unacceptable are detailed in the previous comments above. SCAC-20

- The preferred access road should be Catalina Avenue. Much mitigation is detailed in the RDEIR to try to make a silk purse out of the sow's ear that is the North Access Road, but everyone throws their hands up in any efforts to make Catalina Road feasible as the primary access road for the proposed project. It is by far the shortest and most direct route. SCAC-21

Use of the Loop Trail as described in the RDEIR is totally unacceptable.

- It is also proposed as a secondary fire access road, which would mean a 20 foot road with 10 foot fuel modification clearances on either side. This represents a major incursion through yet another part of the Preserve Core Habitat and existing recreational trails and viewsheds. SCAC-22

- The secondary or primary access road should be an amended Loop trail which drops south as soon as feasible after the road leaves the drilling site. The objective should be to use as much of the existing access road on the south boundary of the Habitat Authority as possible and continue east to Colima. SCAC-23

Although we do not believe this project should be approved, if it is considered further by the City of Whittier, the following mitigation measures should be included:

- As mitigation to prevent damage to the Preserve, funding from Matrix must be required for hiring Habitat Authority staff equivalent to two full time equivalent positions which specialize in compliance monitoring to monitor all project activities. SCAC-24

- Funding from Matrix must be included to train oil company and contract workers on this project about the environmental/biological concerns associated with the Preserve. SCAC-25

- Funding from Matrix should be designated for community and educational outreach programs in the Preserve to account for the loss of recreational and educational opportunities due to this project. SCAC-26

- Requirements should be included to minimize auto and truck traffic through carpooling of workers and to limit, as much as possible, truck traffic through neighborhoods and to address parking issues within the Preserve or community. There should be strict limits established on the number of allowed vehicle trips, with meaningful monitoring and fines if limits are exceeded. SCAC-27

- The North Access Road should never be used at night. Any night time traffic should access the site through Catalina Avenue. SCAC-28

Sierra Club Comments on Whittier Main Oil Field RDEIR

- As mitigation for loss of Core Habitat, funds from this project should be stipulated for Preserve management and purchase of lands before the project is started to complete the continuity of the Puente-Chino Hills Wildlife Corridor. SCAC-29
- Up-front funding for emergency response and cleanup of any toxic materials should be included for the life of the project. Funding should also be included for cleanup and restoration of the entire project after completion. SCAC-30
- In addition to the improvements to the Service Tunnel wildlife undercrossing, the feasibility of other animal movement corridors either under or over Colima should be studied, and if appropriate, built. SCAC-31
- There should be on-site fire apparatuses appropriate for an oil drilling site. SCAC-32
- Conservation easements should be put on all Habitat Authority lands which are owned by the City. SCAC-33

Because of the above concerns, we believe that renewed drilling in the Whittier Hills is unacceptable.

We respectfully submit these comments.

Joan Licari, Chair
San Gabriel Valley Task Force
Angeles Chapter of Sierra Club

Eric Johnson, Chair
Puente-Chino Hills Task Force
Angeles Chapter of Sierra Club

JEFF ADAMS
CITY OF WHITTIER
CEQA COMMENT LETTERS

THE PROPOSED OIL DRILLING PLAN IN THE HILLS DOES NOT HONOR THE PUENTE HILLS AUTHORITY MISSION AND PLAN.

MATRIX OIL'S PARTNER IS CLAYTON WILLIAMS ENERGY COMPANY. CLAYTON W. WILLIAMS IS THE CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER OF CLAYTON WILLIAMS ENERGY.

MR. WILLIAMS RAN FOR GOVERNOR OF TEXAS AGAINST ANN RICHARDS IN 1990. "DURING THE CAMPAIGN, WILLIAMS PUBLICLY MADE A JOKE LIKENING RAPE TO BAD WEATHER, HAVING QUIPPED: "IF IT'S INEVITABLE, JUST RELAX AND ENJOY IT."

THE RESIDENTS OF WHITTIER TAKE PARTICULAR OFFENSE TO MR. WILLIAMS AND HIS COMMENTS ABOUT INEVITABILITY. WE DO NOT BELIEVE THAT HE SHOULD BE ABLE TO RAPE THE HILLS AND RESIDENTS OF WHITTIER. AND WE DO NOT INTEND TO SIT BACK "RELAX AND JUST ENJOY IT." UWW-1

THE PROPOSED PLAN INCLUDING DE MINIMUS MITIGATION MEASURES ARE A COMPLETE FRAUD.

THIS PLAN SHOULD NOT BE ALLOWED UNDER ANY CIRCUMSTANCES. ESPECIALLY WITH A PERSON WITH MR. WILLIAMS BACKGROUND.

I AM INCREDULOUS THAT MAYOR WARNER OR ANY WOMEN INCLUDING GINNY BALL WOULD BE IN FAVOR OF DOING BUSINESS WITH A MAN OF THIS ILK!

UNITED WOMEN OF WHITTIER

RECEIVED
JUL 20 2011
PLANNING DEPT.

WHITTIER AREA AUDUBON

July 21, 2011

Jeff Adams
Community Development Dept.
City of Whittier
13230 Penn St.
Whittier, CA 90602

Mr. Adams,

Whittier Area Audubon Society is submitting the comments and questions below on the June 2011 Revised Draft Environmental Impact Report for the Whittier Main Oil Field Development Project.

Whittier Audubon has concerns over the impacts on wildlife of this project, particularly from:

1. Greatly increased road traffic, noise and vibration within, and human impacts disruption of the core habitat and nursery area of the Puente Hills Landfill Native Habitat Preserve,

2. Insufficient or lacking studies on sensitive species within the project area, and

3. The incompatibility of this project with the land use and policies established for these open spaces of the Puente Hills Landfill Native Habitat Preserve.

Whittier Audubon believes that the environmentally best alternative is the No Project Alternative. If that alternative is not possible, then the Landfill site is the next best environmental alternative.

Specific questions and comments on several sections of the DEIR are below:

Proposed Project

The proposed project (consolidated well site, oil processing facility, gas plant, truck loading facility, north access road, and pipelines) has significant negative impacts on birds and other wildlife, which are inconsistent with the area's current usage and purpose, and which cannot be totally mitigated.

Project Area

There is inconsistency in the Draft EIR as to the size of the project and the size of the disturbed / impacted areas. Multiple references in the Draft EIR (for example, pp. ES-2, ES-4, 2-12, and others) refer to the "approximately 7 acres" of the project. However, other references include a more complete description of the impacted areas, which include not only the approximately 7 acres of the well / processing site, but also the permanent and temporary impacts of the North Access Road improvements, pipeline construction, and fuel modification zones, for a total of over 30 acres.

Reference to the project size should be consistent throughout the document, and should be clearly identified as to whether they are referring to the size of the facilities, or the size of the impacted areas. Mitigation acreages in all of the Biological Resource topics should be reviewed to ensure that the full impact area is addressed.

Page. 2-13 states total project area: " The total impacted area associated with pads, roads, FMZ, and construction-related temporarily disturbed areas would be 30.6 acres (9.0 of these acres are designated as previously disturbed by the Habitat Authority)."

Table 2-3 on page 2-18 gives more of the details in one place. WAA-1

Table 2-3 Project Disturbed and Facility Areas **Location**	**Permanent Facility Area (acres)**	**Permanent Fuel Modification Area (acres)**[1]	**Construction Temporary Disturbed Area (acres)**[2]
Pad Area4	6.9	1.1	3.7
Road Areas4	6.5	4.0	0.7
Parking and Staging Area	-	-	4.1
Secondary Fire Access (Loop Trail Road)[3,4]	1.7	1.7	-
Total	**15.2**	**6.9**	**8.5**

In many other places in the document, various sections of the disturbed area are discussed, with acreage impacts. The reader is left of speculate or assume whether or not these smaller numbers all add up to the total numbers in Table 2-3, and whether all elements are accounted for in Table 2-3.

On page 2-27, Section 2.3.3.3, the construction of the sewer and electrical lines is mentioned, but there is no discussion of how much habitat is affected by sewer and electrical line construction. The amount of disturbance needs to be identified, and it must be clear whether this is included in the "temporary disturbance" totals elsewhere in the document. WAA-2

On page ES-41, Mitigation measure N-1c is: " N-1c. Relocate the construction parking and staging area farther from the school and residences on Catalina Avenue to an area north of the Ranger Residence or equivalent." How much of the now-open space habitat would be used for this parking/staging area? Is the space required for a construction WAA-3

parking and staging area included in the quantities of disturbed or destroyed acres which are to be mitigated?

While approximately 22 acres are being permanently disturbed for the pad area, roads and fuel modification zones, only a small portion of that is determined to require mitigation replacement. The Mitigation Measures (BIO-1a and BIO-2a) require restoration of 19.38 acres for the combined permanent and temporary loss of 10.62 acres of coastal sage scrub and mulefat riparian habitat. Even though not all the habitat being permanently lost is of "high quality", it is used by many species of wildlife. The net loss of habitat is a significant impact. WAA-4

North Access (Landfill) Road

The North Access (Landfill) Road uses an existing roadway, 2.5 miles total – 1.2 mi within the Preserve and 1.3 miles in Landfill (pp. 2-19 to 2-20). The portion of the road within the Preserve bisects the core habitat of the Preserve. This is of great concern, since greatly increased usage of the road will affect the ability or willingness of various species to use the road or to cross the road to access foraging and nursery areas. This may effectively fragment the core habitat zone, dividing it into two parts. WAA-5

The current use of the North Access Road is estimated to be 6 one-way trips per week within the Preserve, mostly by Ranger trucks (p. 2-20).

What studies have been done to determine current usage of the existing road by wildlife?

What studies have been done to determine how the new level of traffic along the road will affect wildlife who are using the area for nursery and foraging, and may currently use the road as an easy route, or may cross the road to get to other areas of the Preserve? There is no discussion of the impact of increased road usage in the Draft EIR. If no studies have been done to establish a baseline usage of the existing roadway, it would seem impossible to fully evaluate the impact of this road at this point. Without consideration of this impact, any possible mitigation cannot be determined, so the net impact of the Landfill Road cannot be determined. WAA-6

Amount of cut and fill for North Access Road: Page 2-20 states: "This roadway would be aligned, stabilized, and widened to safely accept vehicles. Approximately 15,000 ft^3 of cut and fill would be moved." Page 2-25 states: "Stabilization and upgrading the North Access Road would require approximately 5,000 cubic yards of cut and fill..." There is a discrepancy in amount of cut and fill for North Access Road improvements. Please clarify which is the accurate number. WAA-7

Traffic levels along the North Access Road: The heaviest traffic levels along the North Access Road would occur during the 6 months of soil removal during the Construction Phase, which lasts 6 months.

Pages 2-26 to 2-27, Site construction, state, "It is anticipated that approximately 180,000 cubic yards of soil would be cut and approximately 31,000 cubic yards of soil would be used as fill, resulting in approximately 149,000 cubic yards being transported offsite." and "Each dump truck would carry 16 cubic yards of soil. This soil would be exported during the 6 months of earth moving activities." WAA-8

This would require 9,312.5 truck-loads. 6 months would be 26 weeks. However, Table 2-8 on page 2-37 shows 24 weeks for this phase. 24 weeks time x 5 workdays per week equals 120 workdays. This would result in an average of 77.6 truckloads per workday. Assuming round-trips are required, the average truck trips along the road during this 24 weeks would be 155.2 per day. If the site grading period is shorter, there would be a higher number of trips each day.

Table 4.7-14 on page 4.7-18 says that 78 trucks is the peak daily quantity, with Passenger-Car-Equivalent trips of 312 (round-trips x 2 = PCE). Seventy-eight peak round trips per day is very close to the average of 77.6. How was it determined that the peak load is 78 trucks? WAA-9

Hauling trucks are to operate only during daylight hours (BIO-4c). Assuming a daylight period of 11 hours (7 a.m. to 6 p.m.), that would result in 14.11 truck trips per hour (or one truck about every 4 minutes) traveling along the North Access Road. WAA-10

These numbers represents a significant impact to wildlife along the North Access Road, bisecting the core habitat with a steady stream of heavy truck traffic for almost 6 months, and will have a great impact on the wildlife during that time period.

There will also be other trucks using the road at the same time. As stated on pages ES-4 and p. 2-18: "During the testing phase and the construction phase, Matrix proposes to transport crude oil in tanker trucks (10,000-gallon capacity) through Catalina Avenue until the North Access Road is completed and then until the permanent sales oil pipeline is constructed." This sentence is not entirely clear, but implies that the North Access Road will be used once it is completed for the tanker trucks. Please clarify the correct meaning of this sentence. WAA-11

Using the project schedule on page 2-38, pipeline construction takes 9 months, starting the same month as North Access Road, which takes 6 months. Theoretically, for the 3 months after the North Access Road is completed until the pipeline is completed, crude oil and gas transport trucks could use North Access Road, adding to the traffic on that road.

Drilling waste during operations and drilling: on page 2-34, the DEIR states: "Matrix estimates that approximately 660 cubic yards of this material would be generated during drilling of each well. This material would be properly disposed of in an appropriate landfill." The size truck to haul away this drilling waste is not specified. However, if 16 cubic-yard trucks are used, 660 cubic yards would require 41.25 truck-loads. A 30-day continuous drilling period for each well would contain about 21.4 workdays (assuming 5-day workweek). This would result in an average of 1.925 truck-loads per workday, throughout the 5-year operations and drilling phase, along the North Access Road. WAA-12

The EIR should clearly show the number of truck and passenger vehicle trips (round-trips) during each phase of the project. The numbers given in the DEIR are sometimes stated in number of trips, sometimes in passenger-car-equivalents (PCE), and are not all in one place. The trips should also be identified as to use of Catalina Ave and/or North Access Road / Penn St. Traffic on the Loop Trail related to pipeline construction, road improvements, pipeline maintenance/checking, and any other activities, should also be identified. If these trip quantities were clearly identified, and if there had been any baseline studies of wildlife use of the trails and existing roads, it might be possible to estimate the impact of the increased road traffic on wildlife. However, since neither of these exist, it is impossible to evaluate the impact of the road construction and traffic, and the DEIR is deficient in this area. WAA-13

Impact of above-ground pipeline: On page 2-19, it is stated that, "In addition, during the Design and Construction Phase, a natural gas pipeline would be constructed aboveground next to the North Access Road from the Project Site to the landfill to be connected to the City of Whittier pipeline system into which some of the natural gas could be delivered." This additional gas pipeline would add to the disruption of wildlife movement in the Core Habitat., but no additional information is given about this pipeline. How high would this above-ground pipeline be? How would it be supported? How far from the road would it be located? How much would this pipeline add to the fuel modification zone along the North Access Road? It is unclear if the additional area disturbed by this above-ground pipeline is included in the disturbed area calculations. WAA-14

Section 4.2 Biological Resources

Appendix C does not contain all the documents listed in the DEIR, Section 4.2. Page 4.2-1 lists 6 biological technical reports which it says are in Appendix C. However, 4 of these are not in Appendix C. The only two which are in Appendix C are the two 2010 reports (letter July 12, 2010 to Andrea Gullo on Focused Survey Results for Sensitive Plant Species, and letter July 26, 2010 to Sandra Marquez on Results of Protocol Coastal California Gnatcatcher and Least Bell's Vireo Surveys). The July 12, 2010 letter on sensitive plant species states that it includes the results of the plant surveys done in 2008 and 2009 as well as the surveys done in 2010. However, the letters reporting those results separately are not included in the Appendix, as they should be according to the list on page 4-2-1. The details stated in Section 4.2 about the results of the 2008 and 2009 studies cannot be fully analyzed without access to these reports. The DEIR is deficient in not including those reports. WAA-15

Insufficient Biological Studies. Field Visits were conducted in December 2009, February 2010, April 2010 (2), and February 2011. Only one new study (Feb 2011, for snails and other invertebrates) appears to have been conducted for the revised DEIR, and the biological resources section remains deficient in studies for some types of wildlife (see below).

The proposed project is within an area identified by the Habitat Authority as a Core Habitat Zone (Habitat Authority Resource Management Plan, 2007, pp. 70-72; DEIR

page. 4.2-35), which "provides undisturbed breeding habitat for wildlife and native vegetation, which is recovering in the absence of human disturbance." The "project site is known to provide some of the best habitat in the Preserve for bobcat" (page 4.2-7). Construction of the oil wells and processing plant, and use of the North Access Road in the core habitat zone would reverse the process of recovery which has been underway for many years. WAA-16

Current usage of project area is very low, consistent with the area's designation as core habitat: "The only authorized human usage of the western part of the site consists of occasional patrols by rangers from the Mountains Recreation and Conservation Authority and other authorized management-related functions of the Habitat Authority. " (Page 4.2-3). Placement of the project site and traffic along the North Access Road would increase the level of human impact many-fold.

Insects: Insects serve to pollinate plants, and are part of the food chain supporting sensitive and other species of birds, reptiles, etc. No focused studies of insects in the affected areas seem to have been conducted, although the California list of species of special concern includes many insect species. One field trip (Feb 2011) looked for invertebrates, which would include insects; however, many insect species would not be found in February. No insects are listed in Table 4.2-2 (pp. 4.2-14 to 4.2-18), which "lists and discusses each special status wildlife species known to occur on the Project Site or in adjacent areas, or that could occur in the local area.", according to the statement on page 4.2-12. Are there no insect species of special concern likely to occur in the habitat zones of the project area? If no studies have been done to determine whether there sensitive insect species which may be impacted, then the DEIR is deficient in this area. WAA-17

Reptiles: No studies of reptiles in the affected areas seem to have been conducted, although there were searches for amphibians in Feb. and April 2010. The references (page 4.2-2) mention the USGS study published in 2006, which seems to have studied reptiles and amphibians in Sycamore Canyon and Hellman Wilderness Park, but perhaps not in the project area. That study found 4 sensitive species in the Whittier Hills: Arboreal Salamander, Black-bellied Slender Salamander, Coastal Western Whiptail, and Western Ring-necked Snake). The DEIR (Table 4.2-2 on p. 4.2-15) says that Coastal Western Whiptail has been seen in the project area. WAA-18

What impacts will construction, drilling, operations, road paving and increased road usage have on any sensitive species of reptiles or amphibians using the area?

Bats: What impacts will night lighting and drilling have on bat populations in the area?

Page 4.2-21 discusses the negative impacts of noise on foraging bats. What studies show that the noise mitigation efforts will be sufficient to prevent impacts to foraging bats near the project? How will the 24-hour per day noise of drilling, especially during the test drilling phase (before permanent sound barriers are constructed) affect bat foraging?

BIO-4g (pp. 4.2-58 to 4.2-59) mitigation measure addresses possible impacts to bat roosting trees. If bat roosting is documented in trees which must be removed, has it been documented that there are sufficient alternative trees in an nearby undisturbed WAA-19

area to absorb displaced bats?

Edge Effect: On page 4.2-35, it is stated, "This Zone constitutes the largest contiguous area in the Preserve that is well-buffered from such 'edge effects' as lighting, noise, and intrusions by humans and domestic animals. As a result, this Zone is considered to be an important wildlife nursery site for such species as the bobcat and mule deer. " On page 4.2-48, one reason for a greater than 1:1 mitigation replacement ratio for disturbed areas is given as "(2) there would be impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" that can't be completely eliminated through mitigation; " The areas of the consolidated site and North Access Road push the edge effects of human presence into a large percentage of the core habitat. WAA-20

Noise and Vibration: The construction and drilling phases of all of the wells is stated to last up to 5 years, with drilling activities conducted 24-hours per day. On page 4.14-11 (and other places in the DEIR), duration of drilling is summarized: "Drilling would occur for 3 months during the testing phase, for 5 years during the initial operations period, and for up to 3 months a year thereafter. " Operations and maintenance will also generate noise and vibrations, as will heavy truck traffic on the North Access Road, especially during soil removal. WAA-21

Noise: Although the DEIR quotes from Cornell Lab of Ornithology, Birds of North America Online about incidences which show the California Gnatcatcher nesting may be only minimally effected by noise (p. 4.2-21), they also quote from other sources which cite evidence of negative effects of noise on birds and other wildlife. Bats are especially susceptible to noise effects.

Page 4.2-44 states that "noise levels below the level of 60 dBA are not expected to be adverse," but there is no citation of studies to show that noise levels 60 dBA or less do not negatively affect birds, bobcats, or other sensitive wildlife. The EIR needs to substantiate with scientific studies or evidence the threshold that is used to determine whether or not an effect is significant. WAA-22

The DEIR states (page 4.2-44) that: "The limited area where levels are expected to increase to 60-70 dBA could be avoided by some special-status species, among them the coastal California gnatcatcher, a listed species known to occur within coastal sage scrub and riparian habitats in the local area. Therefore, increasing noise levels above 60 dBA within 5.49 acres of preserved coastal sage scrub habitat and 0.75 acres of preserved riparian habitat are identified as a potentially significant, temporary adverse effect on the gnatcatcher and its habitats." This refers to the construction phase, which is 2 years long. How long are these "temporary" periods of higher noise levels? How far from the drilling and construction areas will the high noise levels persist, and to what dBA levels? This "potentially significant... effect" is not dealt with by mitigation measures, and may very well be unavoidable and serious. WAA-23

There are no studies cited and no discussion of the effects of noise on bobcat or other mammal nursery activities in the core habitat area. WAA-24

During the Drilling and Testing phase (approximately 6 months), drilling, oil production

and testing would occur at the Project site, before permanent sound barriers are constructed. How will this increased noise, human activity and vibration affect wildlife which currently use the core habitat, and how will it be mitigated? WAA-25

Mitigation Measure BIO-4a on page 4.2.56 states that a Noise Reduction Plan will be implemented "to ensure that Project activities are operating within the ranges included in mitigation measure N-4." Mitigation Measure N-4 on page 4.5-52 only talks about noise measurements relating to the "closest residential receptor to the facility", and only talks about noise from operational activities. Mitigation for noise effects on wildlife should relate to the location of wildlife, which is much closer than the nearby residences, and have different sensitivity thresholds. WAA-26

Mitigation for noise effects on wildlife should also address drilling and construction noise. There is a mitigation measure for drilling activities (N-2a), but this only discusses relative dBA increases at the closest residences and the closest recreational receptor. The noise impacts of drilling activities on wildlife are not addressed with mitigation measures. WAA-27

Vibration: Vibration impacts from drilling are said to be of short duration and therefore not of significant impact on wildlife. However, vibration impact of large trucks traveling on the North Access Road is not addressed. Page 4.5-37 says "Large vehicles can also increase ground vibration along streets they travel, ",and page 4.5-38 says, "Vibration levels could exceed the significance criteria for residences within 700 feet of the drilling site. Since no residences are located this close to the facilities, this would be a less than significant impact." Wildlife may very well be within 700 feet of the North Access Road. During the soil removal phase, over 70 large dump trucks per day would be traveling along this road. What will the impact of this vibration be on reptiles, mammals, and other wildlife? WAA-28

Core habitat: The Draft EIR mentions the importance of this core habitat as a nursery area, but does not address mitigation for this function of the habitat directly, stating that (page 4.2-53), "This is the largest contiguous area in the Preserve that is well-buffered from such 'edge effects' as lighting, noise, and intrusions by humans and domestic animals. It is an area that biologists characterize as a 'native wildlife nursery site' for such species as the mule deer and bobcat. During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. The removal of native vegetation and non-native vegetation, including the removal of several eucalyptus trees required for the Processing Facility, would result in the loss of important nesting habitat for songbirds and raptors. These represent potentially significant adverse effects upon wildlife populations in the Preserve." WAA-29

The DEIR states on page 4.2-53, "... research from across the region has demonstrated that bobcats and other wildlife species including coyote, raccoon, and mule deer, exhibit only a moderately negative response to urbanization. It is also relevant that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, without resulting in significant, long-term, adverse effects on the local

wildlife populations. For these reasons, the proposed actions are not anticipated to substantially inhibit the bobcat and other larger mammal species' use of the La Cañada Verde watershed, either as a nursery site or as a movement corridor. It is concluded that the Project's potential impacts on bobcats and other wildlife species will be adverse, but less than significant with provision of the required mitigation measures." WAA-30

However, on page 4.2-23, a reference is made to bobcats as being sensitive to human presence: "especially those species most sensitive to human disturbance; bobcats, mule deer, and gray foxes " And on page 4.2-37 it is stated that "Research indicates that bobcats, known breeders in the Core Habitat Management Zone, are among the species known to avoid urban edges. " Two studies are cited for this statement. These statements seem to contradict the conclusion that the project will have a less than significant impact on bobcats in the area. Also, there are no cited studies on the level of bobcat presence and usage of the project site area during the time of previous drilling. What studies were used to substantiate the statement that previous drilling activities did not have a "significant, long-term, adverse effect" ?

Mitigation for loss of habitat is replacement / restoration of similar habitat in various ratios, preferably in the same watersheds as the Project Site. However, mitigation measures which simply require an amount of replacement or restored habitat to compensate for disturbed or removed habitat do not address the complete issue of the core habitat. WAA-31

Mitigation for use and disturbance of core habitat should be required to provide additional habitat (suitable for wildlife nursery and foraging activities, contiguous with existing core habitat area, and in areas away from human disturbance. If that is not possible, the replaced or restored area must be contiguous with another area which can serve as equivalent core habitat in the Whittier Hills. Replacement of core habitat areas with fragmented areas of restored habitat and/or areas subject to human disturbance would not be adequate, as those areas would not provide habitat suitable for the same wildlife activities as the habitat which is being destroyed or disturbed. Also, if a replacement core habitat area is established which is on the east side of Colima Road, one or more wildlife crossing tunnels or overpasses must be constructed away from the area impacted by Arroyo Pescadero, to allow wildlife safe paths for movement to and from areas on both sides of Colima. WAA-32

Section 4.11 Land Use & Policy

The project is at odds with several of the Goals in the Whittier General Plan regarding the preservation of open space and areas for "major habitat types, so as to maintain the ecosystem in a natural balance" (pp. 4.11-3 to 4.11-10). The repeated emphasis in the General Plan on the importance of open space and preservation of the Puente Hills is evidence of the importance that Whittier and it's citizens place on this habitat and it's preservation. The project site has been protected from human disturbance as much as possible for many years. As a result, it has become an important segment of the greater open space of the Preserve, and an essential part of the habitat for several species. Unless equivalent core habitat can be added, contiguous with the existing core habitat WAA-33

area (or of equivalent area and with wildlife corridors facilitating movement) it does not seem that the loss of this important habitat, and therefor the inconsistency with land use policy, can be mitigated.

The project is also in conflict with the Habitat Authority's Resource Management Plan, which designates the area as core habitat, which is to be protected from human disturbance, and is "for the sole purpose of providing undisturbed habitat for wildlife, which contributes to sustaining the overall ecological health of the Habitat Authority's jurisdiction" (p. 4.11-16). WAA-34

The mitigation for Land Use issues measures do not resolve issues of Land Use Policy, since the project would still have major impacts on the core habitat and the goals of preservation and conservation and restoration of open space and native habitat. The DEIR is deficient in this area. WAA-35

Sections 5 and 5: Alternatives

No Project Alternative

On page ES-17, it is stated, " With the No Project Alternative, no development of the oil and gas resources would occur. There would be no drilling and no construction of the access road or processing facility. None of the impacts associated with the proposed Project would occur. No new impacts would occur under the No Project Alternative." WAA-36

Whittier Audubon prefers this alternative as the environmentally superior alternative.

Savage Canyon Landfill Site

Serious questions and concerns exist about the impact on wildlife from construction and operations at the Proposed Site. The Savage Canyon Landfill Site Alternative eliminates most of these. The location of the drill pad and processing plant would be outside of the Preserve.

The gas and oil pipelines would still run along the North Access Road to Colima. There would be temporary disruption along the North Access Road route for installation of the gas and oil pipelines, and some area impacted by required fuel modification for the pipeline route. Although there would be some increase in traffic levels along the North Access Road (the traffic required for pipeline checking), traffic in the Preserve would be greatly reduced from traffic levels created by the Proposed Project, and may not have a significant long-term negative impact.

The following statements in the DEIR list some of the reduced impacts of the Landfill Site (pages ES-17): "The Landfill Site Alternative has advantages over the proposed Project because it would be farther from residential locations and would be located entirely outside of the Preserve. This reduces the impact in biology, safety and risk of upset as well as noise, air quality and odors." And, "As there would not be any development within the Preserve, there would be benefits in terms of policies related to biology, impacts to WAA-37

nursery and nesting areas within the core habitat area and reducing the total loss of habitats. In addition, impacts to wildlife movement for this Alternative would be less than those described for the Proposed Project, which is located within the Preserve where wildlife are less accustomed to human disturbances."

Whittier Area Audubon believes that the Landfill Site is the second best environmental alternative.

Loop Trail Road Alternative

Whittier Audubon does not believe that the Loop Trail Road Alternative would be a good choice. Although the core habitat of the Preserve would have less impact from traffic, there would still be an impact on open space habitat. The drilling pad and processing site would still be located in the core habitat area and would impact the nursery and foraging areas.

In addition, the wildlife corridor using the Service Tunnel would be impacted, with the great increase in traffic along the Loop Trail Road. This could have a major impact on successful wildlife movement between the east and west sides of Colima Road. The DEIR states that "the end of the Loop Trail Road and Colima Road intersection is more than 2,000 feet away from the Service Tunnel and therefore not expected to substantially interfere with the Tunnel's use as a travel corridor." However, there is no data given to substantiate that statement, and the traffic levels along the road would affect wildlife who currently use sections of the trail to approach the Service Tunnel. WAA-38

There would also be a major impact on recreation in the Arroyo Pescadero area, from noise, traffic, and aesthetics.

Concerns and questions about Mitigation Measures:

Mitigation Measure AQ-2b on page 4.1-36 requires paving of Preserve Roads ("The Applicant shall implement a program to reduce NOx and PM emissions, including: Treat all used Preserve dirt roads that will be used (pave or apply soil binders with at least 85% effectiveness) or pave all Preserve dirt roads that will be used during test drilling.")

Have all the impacts of paving the road been evaluated? How will paving the road affect storm water runoff into existing watersheds and habitat areas? Will an increase of water runoff affect existing topography and habitats?. How will contaminants from truck traffic along the North Access Road (which will be carried into the habitat by storm water runoff) affect the watershed habitat? Paving also increases the heat levels as opposed to dirt. WAA-39

Air Quality Mitigation Measure AQ-4 specifies planting at least 500 trees (p. ES-23, AQ-4). Has it been determined with the Habitat Authority that there is a place for these 500 trees? Are any trees planted in restoration of riparian areas counted towards the total of 500, or are the 500 in addition to any trees planted as mitigation for any other impacts? WAA-40

Conclusions

1. The Core Habitat as an undisturbed area of land for nursery and other wildlife uses, is extremely important to the health of the sensitive and other species in the Puente Hills. This land use must not be disrupted by the loss of habitat, nor split in to by a heavily-traveled road, with accompanying increases in human activities, noise and vibration.

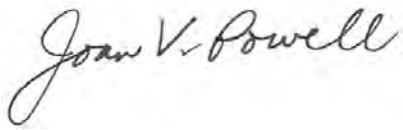
2. Insufficient surveys and studies have been conducted for some species, such as insects and reptiles, and especially for the proposed Consolidated Central Site and the Landfill Road alternatives.

3. Inadequate information is given about the impact of noise and vibration on sensitive species and on their use of the core habitat.

4. The project goes counter to the land use policies and efforts which have been undertaken over the past years to preserve and restore habitat in the Puente Hills.

5. If oil wells must be constructed and drilled, Whittier Audubon prefers the Landfill Alternative for the drill pad and processing site.

Respectfully submitted,



Joan Powell
Conservation Chair, Whittier Area Audubon Society
9172 Hornby Ave., Whittier, CA 90603
joan.powell@att.net

RECEIVED
JUL 20 2011
PLANNING DEPT.

WHITTIER CONSERVANCY
Preserving Our Historic & Natural Resources

Mr. Jeff Adams
Community Development Dept.
City of Whittier
13230 Penn Street
Whittier, CA 90602

July 19, 2011

Dear Mr. Adams,

Thank you for the opportunity to respond to the Draft EIR on the Whittier Main Oil Field Project currently under consideration by the city.

Enclosed please find our official responses to the new DEIR. We have commented on eight sections: Air Quality; Geology; Safety, Risk of Upset, and Hazardous Materials; Aesthetic and Visual Resources; Hydrology and Water Resources; Land Use and Policy Consistency Analysis; Recreation; and Environmental Justice.

The areas of most concern to us are those in which no mitigation can offset the significant impacts this project will have on the environmental wellness of Whittier. It is our hope that when all of the data is evaluated and the public hearings have commenced, that you will consider the Conservancy's commitment to Sustainability as a reflection of the type of safe urban development desired by the residents in determining the future of the city.

We look forward to the responses to our concerns and to participation at the public events in the fall.

Sincerely,

Mary Gorman-Sullens

Mary Gorman-Sullens
President

Enclosed: 16 page DEIR response

The Whittier Conservancy P.O. Box 9114, Whittier, CA 90608-9114 (562) 693-~~8956~~ 5853

RECEIV
JUL 20 201
PLANNING DE

ENVIRONMENTAL ASSESSMENT, SECTION 1

Air Quality

Since the Whittier Conservancy is concerned with quality of life issues, environmental concerns such as air pollution and climate change have been stressed through our recent focus on Sustainability. For this reason, the Draft EIR's conclusion that green house gases will exceed both federal and state standards is of great concern to our membership.

This year, California businesses are *required by law* to reduce greenhouse gas emissions to 2010 levels. By 2020, this requirement goes to the 1990 levels; and by 2050, such emissions are to go to 80% *below* 1990 levels. These laws were put in place as an acknowledgement of the criticality of the carbon footprint that is threatening the viability of the planet. The Conservancy has been steadfast in trying to educate the public about this imminent threat and about what we, as individuals, can do to ease the situation and prepare for a less oil-dependent future as a result.

The Project Impacts and Mitigation Measures section states that the proposed Project would generate air emissions due to the following activities:

*construction equipment and fugitive dust

*drilling emissions during test drilling

*operational combustion equipment

*operational fugitive emissions

*drilling emissions during initial drilling (five years)

*emissions from re-drilling

As a result of these ongoing actions, "Construction activities would generate emissions that EXCEED South Coast Air Quality Management District thresholds." **We find these significant and unavoidable impacts---especially with the potential life of the Project being 45 years---to be unacceptable on a number of levels.** WC-1

First, the residents (and workers) in the immediate vicinity would be exposed to years of particulate matter that would not be generated in the absence of this Project. This does not even include the construction activity that would produce NOx emissions well above both regional and local thresholds. **Since there is no way of adequately protecting** WC-2

those in the immediate vicinity, we would like to know how this project can go forth despite a demonstrated lack of mitigation to offset the liabilities.

While measures are suggested that would require the operator to submit and implement a Fugitive Dust Control Plan to limit exposure to both humans and animals, what would be the operator's incentive for doing so? There would have to be on-site inspectors for the life of the project to assure such compliance within a controlled environment, the purpose of which is to continue drilling? **We feel that at a minimum, there should be on-site inspectors for the life of the project to insure compliance.** WC-3

Impact #AQ.2 notes that, "Operational activities would generate emissions that exceed South Coast Air Quality Management District thresholds," but that these impacts can be reduced to "less than significant with mitigation." We disagree with this assumption based on the duration of the construction phase of the proposed Project. **Suggesting "offsets" for NOx emissions may be beneficial to the company, but how does that help the people in close proximity to those emissions? Since impacts are local, shouldn't the mitigation be local as well?** WC-4

Impact #AQ.4 warns that, "Potential operations and drilling at the Whittier Mail Oil Field would increase greenhouse gas emissions." In keeping with our current mission of *Sustainability*, **we find this "significant and unavoidable impact" to be unacceptable given the current recognition of greenhouse gases as being the #1 man-generated environmental problem facing mankind.** In the Cumulative Impacts and Mitigation Measures section , it is stated that the proposed Project *could* produce significant impacts. The report concludes that "emissions of Greenhouse Gases would contribute to global GHG emissions," both individually and cumulatively. **The Whittier Conservancy is asking why we in Whittier should be contributing to further environmental degradation at a time when other communities are acknowledging their role in doing just the opposite?** WC-5

As a point of omission, we wonder why the emphasis on toxic emissions is limited to the activities on-site, and not coupled with the additional impacts of incoming truck traffic and with their accompanying emissions? **We would like this addressed in the responses.** WC-6

Finally, in the Mitigation Monitoring Plan, the City of Whittier is listed as the responsible party for compliance oversight. We would like to know if this presents some conflict of interest, since it would be the city's job to oversee, and therefore, restrict an enterprise that would become a significant economic factor in the decision-making process. **Would the political and economic implications be in conflict with the health and safety considerations of the general public?** WC-7

Whittier Conservancy p. 3

ENVIRONMENTAL ANALYSIS, SECTION 3:

Safety, Risk of Upset, and Hazardous Materials

This section states that, "The principal immediate hazards to public health at an oil field include:

- releases of flammable gas causing vapor cloud explosions or thermal impacts from fire and flame jets;
- releases of propane or butane causing vapor cloud explosions, thermal impacts from fire and flame jets, or thermal and overpressure impacts from explosions and boiling liquid expanding vapor explosions;
- releases of odorant causing toxic impacts; and
- releases of crude oil with subsequent fire causing impacts from thermal exposure to crude oil fires."

This analysis reiterates state, national, and local requirements for addressing hazardous materials and for contingency plans during potential emergencies. These are "boiler-plate" paragraphs that satisfy EIR documentation, but do little to address the local concerns that are real and palpable. For example, the City of Whittier's codified references to oil and gas development are from 1970 and 1975. These are outdated and were put in place long before CEQA requirements were mandated. The 2006 agreement with Matrix Oil, specific to the Honolulu Terrace operation, was a direct response to an explosion and fire that caused a fatality in a residential area. Where is the relevance to the proposed project? WC-8

In responding to the potential for the four above-referenced "immediate hazards," the draft EIR states that "The proposed Project could introduce risk to the public associated with accidental releases from drilling and processing operations." It further states that these impacts are **significant and unavoidable,** but that they could be "reduced" by "preventing vandalism." The mitigation measures proposed include:

*Security policies for employees and contractors, including access control, pre-employment screening, information security, and post-employment issues;

*Appropriate signage preventing access;

*Fencing systems;

*Visitor sign-in and sign-out;

Whittier Conservancy p. 4

*Surveillance of hazardous material areas;

*Employee and contractor identification methods;

*Night lighting;

*Partnerships with local response agencies;

*System to report and collect security incidents;

*Communications equipment;

*Employee vehicles and access keys, codes, and card security.

OUR QUESTION IS: HOW DO THESE SECURITY POLICIES HAVE ANYTHING TO DO WITH TOXIC RELEASES OR POTENTIAL BLOW-OUTS RESULTING FROM OPERATIONAL PROCEDURES/POLICIES/PRACTICES? WHERE IS THE CORRELATION BETWEEN INTERNAL ACCIDENTS VS. POTENTIAL INCOMING VANDALISM. Negligence, poor oversight, aging systems, quality and training-level of personnel, and economic incentives are all factors in any enterprise operation. The BP blowout in the Gulf of Mexico is an example. Locally, Matrix has had previous problems to which this EIR does not refer. *These proposed mitigation measures suggest very inadequate solutions to a very real problem.* We would like to have more thorough and relevant responses to this "unavoidable significant impact." WC-9

In discussing potential hazards to the community, we feel it would be appropriate to include a report on Matrix Oil's history with regard to public safety. How long have they been drilling, where, with what success, and with how many violations/incidents? This should be part of the public record and the environmental assessment of the Project. Also, **if Matrix were to sell or lease its interests to others, by what process would the city assure a future operator's experience or community commitment?** WC-10

In the Mitigation Monitoring Plan), the "Responsible Party" for compliance verification is the City of Whittier. **We would like to see a chart of the City's history with regard to mitigation monitoring compliance. This applies to CUP compliance as well. Where is the assurance to the public that adequate oversight and compliance with complex environmental issues will be well-served by city staff, given the potential for a conflict of interest in the city's dual role as both overseer and beneficiary?** WC-11

Whittier Conservancy p. 5

Additionally, there is a very important omission in this section of the Draft EIR. **While there is reference to potential hazards coming *FROM* the drilling site, there is no reference whatsoever to potential hazards traveling *TO* and being used within the site. For example, will there be any toxic materials used at the operation site to facilitate the drilling activities and what toxic materials will be transported to the facility through adjoining neighborhoods? Will there be chemicals used in the extraction process? If so, what? Will this be a steam-only drilling process, or will other supplemental chemical compounds be used to loosen the earth in order to accomplish and maximize production? What exactly will be *injected* into the ground and in what volume? We feel that the public has a right to know what, if any, toxic materials are being used, stored, and/or transported to/within the drilling site. These are areas where we feel the Draft EIR has been inadequate.** WC-12

Finally,the Executive Summary (p. ES-8) states that "automatic shutdown valves on the Colima gas pipeline" will be installed to ensure the safety of the transport of natural gas from the drilling site. **Given the reliability and assurances given by BP in the Gulf of Mexico, what make Matrix less vulnerable to natural disasters like earthquakes and more reliable than a multi-national corporation that was unable to rely on their own shut-off valves?** WC-13

Whittier Conservancy p. 6

ENVIRONMENTAL ANALYSIS, SECTION 4:

Geological Resources

According to this analysis, "One of the most serious environmental problems caused by oilfield operations within the Los Angeles Basin has been 'subsidence.'" This is the term used to describe the deformation of the surface of the land caused by fluid production at the drilling site. "Earthquakes have been triggered by subsidence-induced fault movement that produces large-scale earthcraking." (page 4.4-12)

The data referenced in the draft EIR on page 4.4-12 cites studies done in 1971, and 1974. **Is forty year-old data all that is available for reference? Where is current data that shows seismic activity as it relates to massive amounts of underground sand displacement? EIR adequacy would suggest contemporary studies.** WC-14

Page 4.4-8 compares probabilistic seismic hazard maps and makes guesses as to the chances of a major earthquake taking place within the next fifty years---the life of the Project. Page 4.4-6 states that "The Project Area is subject to strong seismically induced ground shaking, as several active and potentially active faults are located in the region." In fact, "the Project appears to overlie the Coyote Hills segment of the trust fault [that] …generated the 1987 Whittier Narrows Earthquake." Yet this section suggests that the chance of a catastrophic earthquake within the next fifty years is low. **Where is the data that can underwrite such a "prediction"?** WC-15

Conditions at the proposed site might suggest an even greater than average possibility that there will be an earthquake within the life of the Project. **Given the recent tragedy in Japan, what assurances can be expected that protocols will be in place to prevent groundwater contamination through fault rupture at the drilling site? Wouldn't a major leak cause irreparable damage to the water table and pose a potential risk that cannot be mitigated? We believe more studies need to be incorporated into this portion of the report before suggestions of probability of earthquakes can be measured against the benefits of the Project.** WC-16

Whittier Conservancy p.7

ENVIRONMENTAL ANALYSIS, SECTION 6:

Aesthetic and Visual Resources

The proposed Project, especially the 144-foot drilling rig tower, will result in significant impacts to aesthetic resources by having an adverse effect on scenic vistas. The creation of new sources of light, especially at night, will also affect the setting. The close proximity of these vistas to existing homes is a significant impact that cannot be mitigated. Also, the presence of these activities within the Preserve and adjacent to existing trails and habitat is of great concern to the Whittier Conservancy.

In the late 1970's, the City of Whittier electorate passed a Hillside Ordinance banning ridge-line development from compromising the hills surrounding the city. The proposed drilling rig will disturb the view-shed from most points that currently provide rare scenic vistas within an urban setting. This analysis states that, "Due to the proximity of recreational facilities to the proposed oil field operations, installation of the drilling rig could create significant visual resource impacts that would be perceived as incompatible with adjacent uses." While the original drilling will take only five years, the on-going processing equipment can be expected to degrade the landscape and view-shed for perhaps 50 years. **This long-term impact needs to be more fully addressed in order to shield hikers, residents, and animals from these intrusions.** WC-17

Since the Whittier Conservancy's mission includes awareness and promotion of quality-of-life concepts, we are concerned about the significant and unavoidable impacts of the installation of an access road that could also degrade public view-sheds. Proposed mitigation that includes the installation of large walls could further alter the serenity of the hillside and become an obstacle to the migratory patterns of animals that inhabit this sensitive portion of the wildlife corridor.

Finally, some of the project components could actually protrude *above* the ridgelines, creating yet another long-term significant impact with little or no relief. According to the report, "The installation of drilling rigs, particularly at the East Well Site viewed from Colima Road and east of Colima Road, would be significant. This is unacceptable. WC-18

The Whittier Conservancy was at the forefront of the mission to *Save the Hills* in the 1990's and was instrumental in the passage of Proposition A, which funded the acquisition of those hills. We consider these resources to be more than biological and recreational assets, but the visual backdrop of the entire community. **For this reason, we are asking for substantially better mitigation for the potential impacts on the scenic vistas that are considered to be "unavoidable."**

Whittier Conservancy p. 8

ENVIRONMENTAL ANALYSIS, SECTION 8:

Hydrology and Water Resources

Our comments will focus on two of the ten criteria that rise to the level of significance with regard to water quality: (DEIR p. 4.8-5)

1---violation of any water quality standards or waste discharge requirements;

6---substantial degradation of water quality.

The Whittier Conservancy emphasizes quality of life within the City of Whittier. Water quality and scarcity, two great concerns currently facing California, are issues that are relevant to our mission statement. For that reason, we are concerned with the following:

All of the comments in this section of the DEIR refer to ground water runoff and surface level problems associated with a damaging "event" at the drilling site. Nowhere in the document is there any reference to what chemicals or agents will be pumped *INTO* the ground to facilitate drilling operations. **We feel this is an omission within the scope of the DEIR. We would like to have a detailed list of any and all potential hazardous chemicals or other agents that may be pumped *into* the ground to help facilitate the oil drilling process. Then, we would like this list to be quantified against a potential event, including an earthquake, and its impacts addressed. What effects would these chemicals have on underground water supplies and aquifers?** WC-19

This assessment also contains no discussion of potentially toxic chemicals or materials that might be loosened or dislodged as a result of hydraulic extraction. Without some credible consideration of these risks, it is impossible to know whether either Matrix Oil or the City of Whittier are suitably equipped to respond to contaminants being released into the water table. WC-20

Our next concern deals with the possibility of a "blow-out." The DEIR considers the water and hydrology issues to be minimal *unless* there is a catastrophic event, such as the complete blow-out of a well. According to the report, "because of the severity of impacts associated with the increased potential for an accidental oil spill or blow out, no matter

Whittier Conservancy p. 9

how low, [there] would be a potentially significant adverse contribution to cumulative water quality impacts." (DEIR p. 4.8-12). The "residual impact to water quality would be significant and unavoidable." (DEIR p. 4.8-12). **Given the recent disaster in the Gulf of Mexico, in which BP had a written emergency plan as well as a "fool-proof" blow-out prevention valve, what can the public rely on as an assurance that Matrix has an even better plan?** WC-21

Finally, since Matrix Oil will be the operator of the drilling machinery in place, we would like to know Matrix's history with regard to violations, accidents, explosions, etc. We would like a detailed chronology of their track record on safety and water quality as part of this analysis. WC-22

Finally, **"the significant and unavoidable impacts to surface and groundwater quality that could occur from a rupture or leak of crude oil from drilling, operations, or from pipelines" is an unacceptable risk to the residents of Whittier.** This is noted in the draft EIR and the mitigation suggestion that "the applicant would be required to properly maintain the crude oil pipelines within the Preserve" (ES-10) is not an antidote to the problems the community would face in the event of a catastrophic event that could/would undermine the existing ground water supply. WC-23

Whittier Conservancy p. 10

ENVIRONMENTAL ANALYSIS, SECTION 11:

Land Use and Policy Consistency Analysis

The proposed Project site is listed in the City of Whittier General Plan Land Use Plan Map as "Open Space," a designation that confines the uses of the land as "committed to long-term open space use, …as well as uses compatible with open space objectives." This analysis states that "activities involved in extracting mineral resources ***may be appropriate*** on land designated 'Open Space.'" Since this would have to be a qualitative decision made by the local governing body, the Whittier Conservancy is asking how drilling activities might be folded into the definition of land uses compatible with "Open Space" designation? WC-24

Within the goals of the City of Whittier General Plan, the following policies are established:

Land Use Element:

Policy 1.2---"Encourage development in the city that is compatible with surrounding uses."
Policy 6.4---"Promote the preservation of important ecological resources within the planning area."
Policy 6.5---"…promote the preservation of as much of the Puente Hills as possible for both passive and active recreation."

Housing Element:

Policy 1.3---"…minimize…the intrusion of incompatible uses into the neighborhoods."
Policy 1.7---"Maintain amenities (landscaping, trees, parks, etc.)"
Policy 1.9---"Discourage increases in the acceptable ambient sound levels within residential areas of the community."
Policy 2.1---"…discourage through traffic in residential neighborhoods…"
Policy 2.6---"Develop alternatives to the widening of roads and the construction of new roads that would bring more traffic through residential neighborhoods or open space areas."
Policy 6.1---"Any future extension of roadways should be sensitive to existing wildlife and their habitats."

Whittier Conservancy p. 11

Environmental Resource Management Element:

Policy 1.3---"Preserve adequate open space areas for major habitat types so as to maintain ecosystems in a natural balance for recreation, scientific, economic, educational, and scenic purposes."

Policy 1.4---"…rehabilitate the [old] oil fields…for open space, recreation, or other beneficial resource conservation uses after site reclamation."

Policy 3.1---"Protect existing wildlife habitats through the preservation of open space."

Policy 4.2---"Retain existing open space in public ownership, wherever possible."

Policy 4.6---"Pursue the use of open space land used for public and semipublic rights-of-way for possible multiple use which would complement the continuity of other designated open space areas."

Policy 5.10---"Coordinate the use of parkland with other community concerns, such as air quality, traffic circulation, and safety."

Policy 6.2---"Protect scenic corridors that have aesthetic, recreational, cultural, or historic values."

Policy 7.1---"…promote land use plans that are sensitive to the environment and give maximum consideration to the preservation of natural habitats."

Policy 7.4---"Promote the preservation of the Puente Hills …as permanent open space, to the greatest extent possible."

Air Quality Element:

Goal 2: "Reduce truck emissions."

Goal 4: "Reduce vehicle emissions."

Goal 6: "Reduce emissions associated with energy consumption."

Goal 7: "Reduce fugitive dust."

Whittier Conservancy p. 12

Goal 8: "Reduce potential air pollution emissions…"

The fact that both construction and long-term operation of the drilling facility will contribute to further degradation of the atmosphere and contribute to global warming with no prospect of mitigation is of great concern. The Whittier Conservancy is committed to and promotes practices that would diminish, not enhance, the community's contribution to global climate change. **Where is the city's responsibility to a sustainable environmental alternative to fossil fuel burning that will ultimately result from drilling in the Whittier Hills?** While this analysis talks about economic benefits associated with oil production, where is the cost/benefit analysis associated with health risks and additional carbon footprint that the Project will generate? WC-25

Public Safety Element:

Policy 4.1---"Support the enforcement of state and federal environmental and pollution control laws."

Policy 4.3---"Designate routes for trucks carrying hazardous materials…"

Noise Element:

Goal 2: "Discourage noises which are detrimental to the public health and welfare…"

While the City of Whittier's Open Space zoning allows for drilling and oil production, the current General Plan, adopted in 1993, appears to be in conflict with such zoning. **Please address the specific policies and goals above for their consistency with current General Plan objectives**. The Draft EIR repeatedly uses the words "*may* be found to be consistent" when matching the General Plan to the current zoning map. **We feel that the above-referenced goals and policies are in potential conflict with current zoning codes and are a reversal of existing land use policy..** WC-26

The Resource Management Plan for the Habitat Preserve has as its purpose the "sustained overall ecological health of the wildlife corridor." According to this analysis, the proposed Project "may exacerbate the potential for habitat fragmentation and erosion in the Preserve, as well as contribute to the Urban Edge Effect." In particular, the protection

Whittier Conservancy p. 13

of coastal sage scrub breeding ground; the protection and maintenance of populations of sensitive or endangered plant species; the protection of nesting and foraging habitat; and the maintenance of native vegetation would all be compromised under the proposed plan. Cumulatively, these impacts contradict the RMP's goals of "enhancing public stewardship of the Preserve" and "protecting and enhancing views and distinctive landscape features that contribute to the setting, character, and visitor experience of the Preserve." (Resource Management Plan Goal INTERP-1 and VISUAL-1). **We would like further study and mitigation proposed to offset these impacts.** WC-27

Policy 1.1 of the City's Land Use Element Goals "encourages land uses… that contribute to making Whittier a desirable community in which to live." The General Plan/Land Use Consistency Analysis in this document states that the proposed Project "***may be*** consistent with [this] policy if the City can make the "finding" that "long-term proceeds …would enhance the city as a desirable community." Policy 1.2 "encourages development in the City that is compatible with surrounding uses, provides for civic improvements, increases the potential for future investment, and fulfills the need forhigh-quality residential areas and shopping and employment centers." **The Conservancy would like to know how such a subjective conclusion can be made at this time and what correlation exists between the policies and these projected conclusions?** WC-28

In the DEIR's analysis of consistency with land use policies relevant to Safety, Risk of Upset, and Hazardous Materials; Biological Resources; Noise and Vibration; and Recreation, **"the oil spill risk and potential impacts to the resources may still be inconsistent with this policy." What further mitigation, if any, could be proposed to offset these inconsistencies?** WC-29

Significant and Unavoidable Impacts:

"Concurrent operational activities at the Central Processing Site and drilling activities at the Central Well Site during periods of the Project, or drilling at the East Well Site, would increase noise levels that could be incompatible with adjacent land uses."

"Views of drilling rigs, constructions, and potential *future* operations could be incompatible with adjacent land uses." WC-30

Please address how these significant impacts could be further mitigated and clarify what is meant by "future operations." Would these plans call for a General Plan amendment? If so, would public hearings be concurrent with the hearings for the Matrix proposal?

ENVIRONMENTAL ANALYSIS, SECTION 14:

Recreation

According to this analysis, the proposed project "falls within the larger area known as the Puente Hills Landfill Native Habitat Preserve," the purpose of which is to "maintain open space in the 'Preserve' as permanent protection for the native habitat." We feel that the key word here is *Preserve* and that the project would actively defy the definition of "preserve." Since hiking is the most prevalent activity throughout the entire Preserve, **the project's East Well Site (adjacent to the San Miguel Trail and amphitheater) and the truck loading area (adjacent to the Deer Loop Trail) seems inconsistent with the intended purpose of the Preserve.** WC-31

In the City of Whittier's Resource Management Element of the General Plan, Policy 5.3 states that the city should "integrate recreation-planning efforts to consider conservation, open space, and scenic highway areas and programs designed to conserve these resources." Policy 5.5 "encourages the use and enjoyment of public open space in the City and surrounding area," while Policy 5.10 suggests the "coordinated use of parkland with other community concerns, such as air quality, traffic circulation, and safety." **We are concerned that these policies conflict with the proposed project in ways that may not be sufficiently mitigated.** WC-32

In the Noise Element of the City's General Plan, Goal #2 "discourages noises which are detrimental to the public health and welfare and contrary to the public interest." Specifically, Policy 2.5 states that the city will "follow acceptable noise level standards for … parks …in future planning."

The Public Use Element's goal of providing "a trail system that protects natural resources of the Preserve" discourages development that would have an adverse impact native habitat, both flora and fauna. Objective Use 1.2 of this Element requires new trails to be located "away from sensitive habitat areas," while Use 2 requires the "protection of the varied resources and promotes an enjoyable and safe environment for visitors." Goal Use #3 "prohibits the use of motorized vehicles in open space, with authorized exceptions.) **These General Plan Goals appear to be in conflict with the goals of the proposed project.** WC-33

The Visual Resources and Aesthetics Element ***requires*** the City to "protect and enhance views and distinctive landscape features that contribute to the setting, character, and WC-34

Whittier Conservancy p. 15

visitor experience of the Preserve." Permanent rigs would have long-term significant impacts on view-sheds. The [new] drilling and operations would adversely affect public view-sheds, posing a **significant and unavoidable impact which is of great concern.**

In the Project Impacts and Mitigation Measures section of the Recreation portion of the Draft EIR, it is stated that the "Newly generated traffic from the proposed Project could reduce planning efforts to protect recreational resources." While we agree with this assessment, **we *disagree* with the residual impact being "less than significant with mitigation." The long-term impacts are highly significant and need to be more fully addressed.** The generation of both construction and operational traffic within the most biologically-sensitive area of the Preserve is of great concern. WC-35

Since drilling would occur for *three months* during the testing phase and for *five years* thereafter, both the noise and the construction activity are considerable. The analysis states that such "noise… is considered to be temporary." **We find this response unacceptable and ask for further mitigation.** "Noise from drilling at the East Well Site during the operational phase of the Project would last approximately 20 months and would create noise levels that exceed the significance criteria for noise at the Arroyo Pescadero Trail immediately in front of the East Well Site." WC-36
These **Significant and Unavoidable Impacts must be weighed against the "No Project" alternative.**

Both the immediate and residual impacts to Recreation will be unavoidable and long-lasting if this Project is implemented. We **strongly disagree with the Cumulative Impacts and Mitigation Measures conclusion** that "cumulative recreational impacts are expected to be less than significant," and ask for further review. WC-37

Whittier Conservancy p.16

ENVIRONMENTAL ANALYSIS, SECTION 16:

Environmental Justice

This new analysis states that "Future development could disproportionately impact minority and low-income populations," but that the impacts of drilling, construction, and long-term operations would be "less than significant." While acknowledging that there is a "disproportionate impact on minority and low-income populations due to the Project's impact regarding traffic on Penn Street," no mention is made of the existing impacts created by trash trucks approaching the local landfill. WC-38

The amended draft EIR now includes the residents of west Penn as recipients of additional noise, air quality, and vibrations as the result of additional traffic created by the transfer of trucks during the construction phase of the Project. It also mentions the impacts already associated with travel to and from both Whittier College and Penn Park, **But no mention is made of the daily diesel truck traffic associated with the local landfill.** Lower Penn Street already experiences an undue concentration of particulate matter due to the uphill acceleration of scores of trash trucks Monday through Friday. Diesel truck residue is notoriously noxious and generates a great deal of particulate matter. The residents of the west end of Penn Street are already the recipients of the pollution generated by daily trash trucks that must chug up the hill toward the landfill. Parking is already restricted in areas that have less than necessary spaces due to a glut of apartments. There doesn't appear to be any reference in the EIR as to the *cumulative* risks to a minority population that would bear the brunt of this alternative route. Data and relevant impacts must include all of the trips associated with the Project when added to those associated with the college, the park, and the landfill. **Where are the studies that show how much particulate matter is already falling on the residents of lower Penn due to the activities already in play? And how does newly-generated Project traffic, noise, and pollution add to an already overly-impacted area? What are the cumulative impacts?** WC-39

Why is there no assessment of pollution risks to children who occupy the Broadoaks School campus located only a few blocks from the designated Penn Street trucking corridor? With scientific evidence clearly demonstrating the dangers to children relating to traffic-generated contaminants, what provisions have been made for mitigation of these associated health risks? WC-40

RECEIVED
JUL 2 1 2011
Community Development

July 20, 2011

Mr. Jeffrey Adams
City of Whittier
Planning Services Manager
13230 Penn Street
Whittier, CA 90602

RE: Amended Whittier Project Environmental Impact Report Public Draft

Dear Mr. Adams:

Whittier Hills Oil Watch (WHOW sometimes hereinafter "we") submits these comments pursuant to the California Environmental Quality Act which provides the public with the opportunity to officially comment on the Draft EIR (DEIR) for the above proposed project. WHOW firmly believes that CEQA is intended to vet environmental threats caused by proposed public projects and as such CEQA is fundamental to protecting the environment for present and future generations. We express great concern that the current DEIR process is less concerned with vetting environmental issues in the spirit of CEQA and more concerned with meeting the financial goals and objectives of both lessees Matrix and Clayton Williams Energy and the lessor City of Whittier's desire to generate revenues from the mining operations proposed by the oil companies.

WHOW joins in the comment letter submitted by Opens Space Legal Defense Fund and incorporates the same as though fully set out in this comment letter. Additionally, WHOW re-asserts the issues raised in its comment letter to the original DEIR dated December 1, 2010 signed by Dan Duran because most of the same defects plague the current DEIR. WHOW's original copy is appended hereto as Exhibit 1.

It is worth noting that many other comment letters stated the original DEIR was deficient and required redrafting and re-circulating. WHOW-1

WHOW joins in the comment letter submitted to both the original DEIR and comment letters to the current DEIR that assert the following: (1) that the project has not been adequately defined and analyzed under CEQA and should re-circulate or should be abandoned and redrafted in its entirety; or (2) that the "no project alternative is the preferred alternative to proceeding with the project.

Executive Summary

The amended re-circulated DEIR (the current DEIR) continues to evaluate local impacts of removing open space from the County of Los Angeles' inventory of open space lands and disregards project impacts to the assessed property owners throughout the County of Los Angeles that pay an open space district assessment for the benefit of using the Whittier Hills for recreational uses and purposes.

The amended re-circulated DEIR identifies six unavoidable impacts caused by the project which are not acceptable even with the mitigation measures proposed. As stated in the DEIR on page ES-7

> "The proposed Project would generate potentially significant environmental impacts in air quality, biological resources, safety, risk of upset and hazardous materials, geology, noise, aesthetics, traffic, hydrology and water resources, land use, fire protection and recreation.
>
> Significant and unavoidable impacts would remain in air quality, aesthetics, hydrology, land use and recreation."

WHOW-2

These six significant and unavoidable impacts along with the twelve potentially significant environmental impacts are explicit findings that point to the no project alternative as being the only logical, feasible, legal and reasonable alternative.

It is WHOW's opinion that approval of CEQA on the proposed project and preferred sites and access roads with the proposed mitigation measures does not objectively assess the data and that the approval would violate the standard set forth by CEQA and is arbitrary and capricious, based on the City of Whittier's inherent self–interest and receiving a 30% royalty.

Biased and Conflicted Analysis

Whittier's biased application of CEQA has been apparent since the original signing of the oil lease in 2008 between the City of Whittier and Matrix Oil/Clayton Williams Energy. The DEIR and the current amended and re-circulated DEIR contain shoddy analysis, result oriented conclusions and slack mitigation measures. Most significantly, the current DEIR ignores overwhelming evidence that the project should not be approved and cannot be properly mitigated.

The DEIR has been designed specifically to reduce Matrix/Clayton Williams financial exposure in implementing the project and for that reason it is fatally flawed. The project proposes to start with three test wells and access off the non-selected access road- Catalina Avenue. These test wells would be exempt from the vast majority of the mitigation measures that are recommended. Instead temporary tanks, rigs and utilities are being used.

> "Oil and water brought to the surface would be briefly stored in temporary tanks and removed daily by 58-foot tanker trucks. Temporary tanks, approximately 12 feet tall by 40 feet long, would hold up to 500 barrels of liquids."

The proper implementation would require that mitigation measures be in place prior to or contemporaneously with commencement of drilling including proper footings, piers and retaining walls. That would also include creating the proper storage wells with liners, the proper transportation pipelines, the full and complete road access from Penn Street, full utilities, complete water and fire hydrants systems and safety measures.

WHOW-3

Instead the City allows Matrix/Clayton Williams to use its temporary wildcatter methods with minimal mitigation measures in place, allowing the oil company to save money by not fully committing to the project. This methodology sets CEQA on its head. The same environmental impact will be felt regardless whether the proposed wells are termed "test wells" or "permanent wells" and as such, necessary mitigation measures must be implemented prior to any drilling.

By way of analogy imagine the precedent set by this financial risk reduction approach in the context of a future real estate development that would seek to build the first three homes and see if there is a market for them and then and only then, if it was deemed economically feasible would they put in the roads, utilities and sewers. And if the developer doesn't sell the three homes at a substantial profit, the developer won't put in the roads or utilities or complete the project.

This approach is classic "piece meal" and violates CEQA. It should be mandatory that all the roads, pipelines, utilities, safety measures, retaining walls, piers and footings including mitigation be implemented prior to any drilling or transporting of oil.

If the risk exists of fire, oil spill, noise, air and especially earthquake, then those environmental risks exist during the testing phase and need to be mitigated before any drilling.

If Matrix/Clayton Williams is committed to the project then do it properly from the beginning. The oil wildcatters do not deserve a pass on CEQA standards and mitigation until they find oil.

Geology

The drafters of this DEIR appear to suffer from short term memory loss. In the last eighteen months alone we have all witnessed the devastating energy related calamities surrounding the Gulf oil disaster, the earthquake in Sendai, Japan, the oil pipeline explosion in San Bruno and the recent oil pipeline rupture in Yellowstone National Park. In each of these energy disasters engineers, technicians and energy experts have touted proven technology to protect the public from the disastrous impact of these predictable catastrophes.

We have seen firsthand the blow-out preventers fail miserably. That building nuclear facilities on active blind thrust faults are certifiably insane. That pipeline corrode and explode in residential neighborhoods, and the shut-off valves and early warning systems fail. And that oil pipelines through sensitive habitat like Yellowstone are subject to the same very foreseeable problems that destroy sensitive habitat.

Yet these similar risks are being ignored in Whittier putting all in the City of Whittier at risk. The mitigation measures that are being proposed in this amended and newly re-circulated DEIR are merely recycling failed policies that have proven these so called pundits wrong.

In December 2010 WHOW submitted a comment letter to the Whittier Draft EIR. One of the major objections was that geological studies were not performed on the proposed project site. Given that the proposed project lies on the active Whittier earthquake fault and the Puente Hills Blind Thrust (PHBT) it is unconscionable that a complete geological study was not initially performed. WHOW-4

Los Angeles County Regional Park & Open Space District, Hills for Everyone, Puente Hills Landfill Authority and the Open Space Legal Defense Fund has made similar written comments on the DEIR requesting a geological review. Specifically they asked for the geological studies to be performed, the DEIR to be redrafted, re-circulated and a new comment period allowed.

The new re-circulated DEIR did complete a geology study.

We believe that the geological study if interpreted objectively will render the project and proposed drilling site technically infeasible and a significant risk to the citizens of Whittier.

These bases for the determination that the project and site are technically infeasible are:

1) The DEIR states that there is a high probability of an earthquake.
2) The new DEIR states the proposed site is in a liquefaction zone.
3) The new DEIR states the proposed site is immediately adjacent to a landslide zone.
4) The new DEIR states that the proposed site is one half miles from the Whittier Fault.
5) The DEIR understates that the maximum ground acceleration is 0.476 (g).
6) The DEIR recommends drilling sites and eliminates alternatives without sufficient due diligence and information.
7) The DEIR failed to assess the potential damages and losses as a result of an earthquake.
8) The DEIR improperly defers a hydrology study until after the approval of the CEQA and CUP
9) The DEIR cannot provide valid mitigation measures given the existing geological hazards.
10) The known direct consequences of an earthquake are understated both for the likelihood of the next significant event and for vertical acceleration.

1) The DEIR states there is a high probability of an earthquake.

The new DEIR addresses the probability of an earthquake in the appendix. Rather than including it in the body of the report a reader is forced to go through the appendix on Geology which states on page L-15 to find this candid admission.

> **"Within the last 60 years at least 60 events of magnitude 5.0 or greater have occurred in the Southern California region. There is a high probability that other significant events will occur in this century. Potential hazards from earthquakes in the project area include ground shaking, fault rupture, liquefaction, lateral spreading and seismic settlement."**

The potential hazards in the project area cannot be mitigated. However, more protection by exceeding the minimum code requirements is not suggested by the DEIR.

In 2007 a report organized by the Southern California Earthquake Center, the US Geological Survey and the California Geological Center conducted a three year study titled the Uniform California Earthquake Rupture Forecast (UCERF).

"According to the new forecast, California has a 99.7% chance of having a magnitude 6.7 or larger earthquake in the next 30 years. The likelihood of an even more powerful quake of magnitude 7.5 or greater in the next 30 years is 46%."

A probability of 99.7% is a near certainty. The Whittier Fault is an active fault. As is the Puente Hills Blind Thrust that produced a 4.8 earthquake in Montebello in 1989, and a 4.4 earthquake in Pico Rivera in 2010 and the Whittier 5.9 earthquake in 1987 .

We all know the enormous damage the city of Whittier suffered from the 5.9 quake. Imagine the consequences of a 6.7 or 7.5 earthquake. Certainly the residents of Whittier need the city to diligently and comparatively assess the earthquake risk of both the Whittier Fault and Puente Hills Blind Thrust and not ignore potential damages of a quake 30 times more powerful than the 5.9 earthquake (eg. about a 6.9).

Richter magnitudes	Description	Earthquake effects	Frequency of occurrence
Less than 2.0	Micro	Micro earthquakes, not felt.[6]	About 8,000 per day
2.0–2.9	Minor	Generally not felt, but recorded.	About 1,000 per day
3.0–3.9		Often felt, but rarely causes damage.	49,000 per year (est.)
4.0–4.9	Light	Noticeable shaking of indoor items, rattling noises. Significant damage unlikely.	6,200 per year (est.)
5.0–5.9	Moderate	Can cause major damage to poorly constructed buildings over small regions. At most slight damage to well-designed buildings.	800 per year
6.0–6.9	Strong	Can be destructive in areas up to about 160 kilometers (100 mi) across in populated areas.	120 per year
7.0–7.9	Major	Can cause serious damage over larger areas.	18 per year
8.0–8.9	Great	Can cause serious damage in areas several hundred kilometers across.	1 per year
9.0–9.9		Devastating in areas several thousand kilometers across.	1 per 20 years
10.0+	Massive	Never recorded, widespread devastation across very large areas; see below for equivalent seismic energy yield.	Extremely rare (Unknown)

WHOW-5

11) (*Based on U.S. Geological Survey documents.*)[7]

5

Given the known high probability of large earthquakes in the Project Area no one can justify the presence to place oil rigs, tanks, wells and fragile pipelines with combustible hydrocarbons and toxic elements so close to homes, schools and in the middle of a natural preserve.

2) The new DEIR states the project is in a liquefaction zone.

Liquefaction is a phenomenon whereby soil substantially loses strength and stiffness in response to an applied stress, usually earthquake shaking or other sudden change in stress, causing it to behave like a liquid.

A state of "soil liquefaction" occurs when the effective stress of a soil is reduced to essentially zero, which corresponds to a complete loss of shear strength. This would result in the rupturing of pipelines, titling and leaking of tanks and even the loss of a drilling rig.

The original DEIR states on page 4.4-10

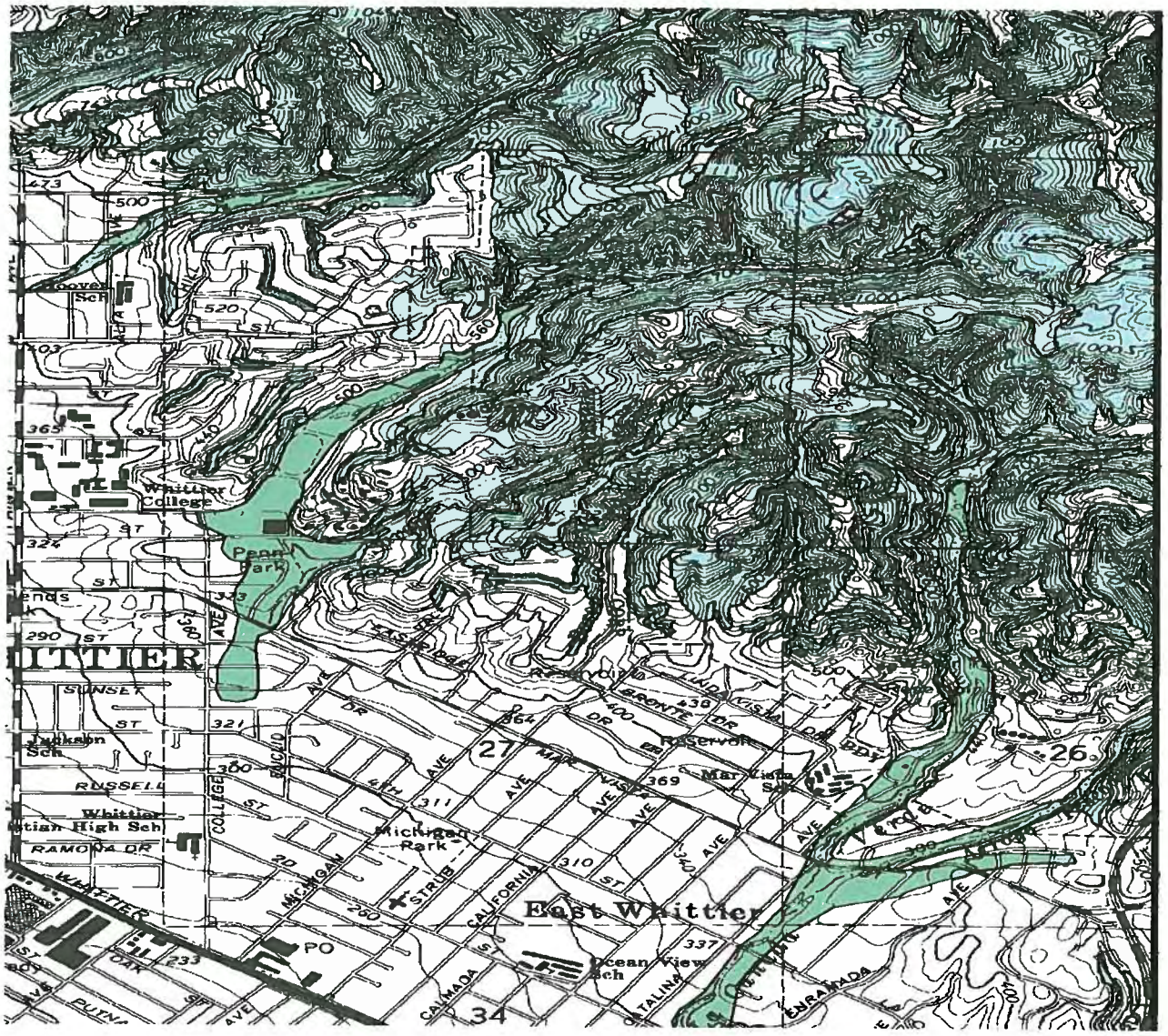
> "The Project Site is not located within a liquefaction zone delineated by the Department of Conservation Seismic Hazard Zones Map (April 1988). However, onsite investigation and soil testing did not perform a liquefaction analysis to assess liquefaction.

The new DEIR reverses it original DEIR and states:

> Portions of the Project Area are located within an area of potential liquefaction, as delineated by the Department of Conservation Seismic Hazard Zones Maps (California Department of Conservation, Division of Mines and Geology 1999). The Recent alluvial sediments within La Canada Verde, located immediately adjacent to the Project Site, and Arroyo Pescadero, which is traversed by the proposed pipeline alignment (Figure 4.4-1), are prone to liquefaction. Although the pipeline route would locally be susceptible to liquefaction where it traverses Arroyo Pescadero, the Project Site would not be, as it is topographically higher than the alluvial sediments prone to liquefaction. Geotechnical borings drilled at the Project Site, to a depth of 60 feet in 2009 and 2010, did not encounter groundwater (Heathcote Geotechnical 2011). Other than creek areas, where localized perched groundwater may be present, historical groundwater is deeper than 100 feet beneath the Project Site (California Department of Conservation, Division of Mines and Geology 1998). A liquefaction analysis completed in conjunction with these geotechnical borings indicated that the soil profile will most likely not experience liquefaction at the Project Site and liquefaction induced settlement is expected to be 0 inches (Heathcote Geotechnical 2011).

However, the new DEIR does not show a geological cross section of the project site and the borings- a serious omission.

Official Seismic Hazard Maps of Southern California are readily available over the internet. These map the seismic hazard zones into quadrangles and color code zones of required investigation for liquefaction and landslides. The attached map shows the Whittier Quadrangle dated March 25, 1999. This map shows the entire quadrangle (Exhibit 3). The map below is an enlargement of only the upper right quadrant of this Whittier Quadrangle map where the proposed site is located.



WHOW-6

Much of the proposed site is shaded in color codes to reflect that it is in an area prone to liquefaction (green) and landslides (blue). A close examination reveals the liquefaction area begins on Catalina Avenue almost near Whittier Boulevard and extends northward up between Catalina and La Bajada past

the ranger's residence into the proposed oil drilling site. Catalina is one of the access roads to the site. The proposed drilling site illustrated on this access road either is in the liquefaction hazard zone or very near it. The proposed oil and gas pipelines and electrical lines are also in the liquefaction hazard zone.

The DIER was deficient in not putting a project overlay over this seismic hazard zone.

The original DEIR used an outdated map (1985) that it was not in a liquefaction area. The newly re-circulated DEIR instead fails to provide the full Seismic Hazard Zone Maps that clearly show the project is in a very high risk area. Instead it buries on page L-121 a very small portion of the map blown up in scale to which only incorporates a fractional part of the entire project area. The map also fails to explain the color code differences between liquefaction areas and landslide areas

More importantly since the pipeline transverse liquefaction areas the probability of the ground sinking and the oil pipeline rupturing is greatly increased.

The DEIR states on page 4.4 -11

> "however, strong ground shaking often greatly exacerbates soil conditions already potentially prone to differential settlement, resulting in distress to overlying structures. **Elongated structures, such as pipelines, are especially prone to damage as a result of differential settlement**. Pipe connections at storage facilities are especially vulnerable to the differing earthquake response between buried pipe and rigid structures (California Division of Mines and Geology 1988)."

Why would any reasonable person propose building vulnerable pipelines on soils prone to liquefaction?

It is axiomatic that a DEIR is deficient and defective if it fails to provide complete and accurate information with a sufficient degree of analysis to provide decision makers with information that enable them to evaluate and review possible environmental consequences intelligently. The DEIR is defective in not providing the proper Seismic Hazard Maps.

The proposed pipeline is not technically feasible given it is being proposed in area known for liquefaction.

3) The DEIR states the proposed site is immediately adjacent to a landslide zone.

As mentioned above the Whittier Quadrangle Seismic Hazard Zone Maps color code "Earthquake Induced Landslides". In looking at these same maps the proposed site sits on an Earthquake Induced Landslide area.

The new DEIR modifies it original DEIR and states on pages 4.4-11 the following:

> *Earthquake-Induced Landslides*
>
> The State of California has mapped mountainous areas that are potentially prone to seismically induced slope failures, including, rockfalls, debris flows, slumps, and landslides. Based on these maps, **the west-facing slopes immediately east of the Project Site are prone to earthquake-induced landslides. In addition, the slopes along the east side of Arroyo Pescadero (Figure 4.4-1), which is traversed by the proposed pipeline route, are prone to landslides**. More specifically, these slopes are an area where previous occurrence of landslide movement or local, topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements (California Department of Conservation, Division of Mines and Geology 1999).

The DEIR admits that "the west-facing slopes immediately east of the project are prone to earthquake induced landslides." The proposed drilling site sits directly below these west-facing slopes. The proposed drilling rigs, wells and tanks are in the direct path below the west-facing slopes. Please closely review the picture on the next page from the revised DEIR on ES-3. These are the west facing slopes facing that prove landslides and hill slides have already occurred on this unstable slope. A close examination directly to the right of the proposed rig, half way up the hill reveals the gaping hole of the hillside erosion on this west- facing slope. In addition an additional area of hillside erosion is found to the left of the tank approximately two-thirds up the face of this west facing slope.

WHOW-7

Actual Photo of Proposed Site with Superimposed Picture of Rig from DEIR ES-3

In the appendix on page L-13 under Landslides it reports:

> "**overall the topography is prone to surface failure due to the friable nature of the Fernando Formation which forms the slopes within the entire project site**."

The term "friable" is defined in the dictionary as" *easily crumbled or reduced to powder*". In simple terms a sample of the sediment is easily crushed in ones hand.

The original DEIR states "A study reported that ground acceleration of at least 0.10 g in steep terrain is necessary to induce earthquake related rock falls…"

The 1987 Whittier earthquake measured 0.63 g **six miles from the epicenter**. And that the Northridge earthquake measured **1.0** g in ground acceleration. Given these two historical examples it is apparent that these ground accelerations are 6 to 10 times the "0.10 g in steep terrain necessary to induce earthquake related falls" and that the oilmen have placed their rigs, wells and pipelines directly in the path of these landslides.

The selected drilling site is not technically feasible given it is directly in the path of an earthquake induced landslide. The entire project site is not technically feasible given the topography is prone to surface failure and landslides.

4) The new DEIR now states that the proposed site is one half miles from the Whittier Fault, but fails to recalculate the effect of this new lesser distance.

Table 4.4-1 from the original DEIR states the "Distance Between Site and Surface Projection of Earthquake Rupture from the Elsinore Whittier Fault is 2.0 miles as shown below.

Name	Source Type	Distance Between Site and Surface Projection of Earthquake Rupture (miles)	Estimated Maximum Peak Ground Accelerations (g)	Estimated Maximum Earthquake (MW)	Slip Rate (mm/year)	Fault Type
Elsinore-Whittier	**B**	**2.0**	**0.476**	**6.8**	**2.50**	**SS**
San Jose	B	8.8	0.270	6.5	0.50	DS
Raymond	B	13.1	0.186	6.5	0.50	DS
Chino-Central Ave. (Elsinore)	B	14.1	0.196	6.7	1.00	DS
Sierra Madre (Central)	B	15.0	0.223	7.0	3.00	DS
Verdugo	B	15.0	0.186	6.7	0.50	DS
Clamshell-Sawpit	B	16.0	0.152	6.5	0.50	DS
Newport-Inglewood	B	16.5	0.148	6.9	1.00	SS
Hollywood	B	17.2	0.155	6.5	1.00	DS
Cucamonga	A	19.50	0.133	7.0	5.00	DS

The new DEIR amends the table to state the fault is now only 0.5 miles away from the site.

Table 4.4-1 Partial List of Nearby Regional Faults Fault Name	Distance Between Site and Surface Projection of Earthquake Rupture (miles)	Estimated Maximum Peak Ground Accelerations (g)	Estimated Maximum Earthquake (MW)	Slip Rate (mm/year)	Fault Type
Elsinore-Whittier	**0.5**	**0.476**	**7.2**	**2.50**	**SS**
San Jose	8.8	0.270	6.5	0.50	DS
Raymond	13.1	0.186	6.5	0.50	DS
Chino-Central Ave. (Elsinore)	14.1	0.196	6.7	1.00	DS
Sierra Madre (Central)	15.0	0.223	7.0	3.00	DS
Verdugo	15.0	0.186	6.7	0.50	DS
Clamshell-Sawpit	16.0	0.152	6.5	0.50	DS
Newport-Inglewood	16.5	0.148	6.9	1.00	SS
Hollywood	17.2	0.155	6.5	1.00	DS
Cucamonga	19.50	0.133	7.0	5.00	DS

The new DEIR does make this correction on the distance from 2.0 miles to 0.5 miles. It also is worth noting that it increases the estimated maximum earthquake from 6.8 to 7.2 magnitude.

The above chart failed to recalculate the Maximum Peak Ground Acceleration (g) given that the distance is 1.5 miles closer and the increase in the maximum earthquake increased from 6.8 to 7.2. Heathcote Survey Page L -126 and 127 clearly shows that they did not update the EQFault Summary to reflect the closer proximity and Maximum Earthquake. These EQ Fault Summaries are produced by inputting data into a probabilistic computer model. (Exhibit 4).

The graph in appendix L-129 also confirms that the data has not been updated. The new graph would plot the point at 7.2 and 0.5 miles. (Exhibit 5).

The above referenced table 4.1 also attempts to minimize the number of nearby earthquake faults and their magnitude. The table in the appendix L lists over 70 faults with 32 of these faults within a 40 mile radius and includes the San Andreas and San Jacinto Faults.

Recent research has shown that the southern segment of the San Andreas Fault, which stretches from Parkfield in Monterey County, California all the way down to the Salton Sea, is capable of magnitude scale 8.1 earthquake (Exhibit 6).

In 1906 the northern segment of the San Andreas Fault ruptured in the great San Francisco earthquake with a 7.8 magnitude event. Prior to that, the central segment of the San Andreas erupted in Fort Tejon with a 7.9 magnitude. Certainly this size earthquake would produce severe consequences. WHOW-8

The new DEIR now discusses the Puente Hills Blind Thrust (PHBT) which sit directly below the entire project site stating:

> The Project Area overlies the Puente Hills blind thrust system, an active blind thrust fault system, which extends for more than 24 miles in the northern Los Angeles Basin, from downtown Los Angeles east to Brea, in northern Orange County. This fault system includes at least three distinct segments, which from west to east include the Los Angeles, Santa Fe Springs, and Coyote Hills segments. The Project Area appears to overlie the Coyote Hills segment of the thrust fault. This fault appears to have generated the 1987 Whittier Narrows earthquake. If these segments rupture independently, magnitude 6.5 to 6.6 earthquakes are likely; however, if multi-segments rupture, earthquakes up to magnitude 7.1 could occur. *Slip rates suggest that earthquakes would occur every 400 to 1,320 years on individual segments and 780 to 2,600 years on multi-segments.* Surface rupture attributable to these deep seated, blind-thrust seismic sources does not appear to be likely within the Project Area, but the presence of these blind thrust faults will potentially contribute to strong seismically induced ground shaking (Heathcote Geotechnical 2011).(Emphasis added.)

Attached is a recent scientific paper (Exhibit 7) specifically addressing the Whittier Fault and Puente Hills Blind Thrust published by Yang and Hauksonn in the Seismological Society of America in June 2011 by two highly respected scientist who are employed at the Cal-Tech Seismological Laboratory. On page 972 is a three dimensional topographic map of the Whittier Fault and the Puente Hills Blind Thrust. And as can be seen from the cross-sectional map, the Puente Hills Thrust lies directly beneath the Whittier Fault and intersects it and the entire 1280 acre project site. Yang and Hauksonn state that this area is very active seismically. They show the 2010 Pico Rivera 4.4 earthquake, 2008 Chino Hill 5.4 Earthquake, the 1989 Montebello 4.9 earthquake and the 1987 Whittier Narrow 5.9 earthquake.

It is wrong for the DEIR to state that earthquake occurrence is between 400 to 2,600 years based on the empirical evidence presented in the Yang & Hauksonn paper.

Further on page 973 of their paper Yang & Hauksonn state:

> "Large earthquakes can occur both on the Whittier Fault and on the blind-thrust ramps. However, the spatial patterns of stress drop suggest that the deep-thrust faulting earthquakes have higher stress drops and thus can radiate more high frequencies, potentially causing more damage than the shallow strike-slip events."

It worth noting that the recent devastating earthquake in Japan was a "blind thrust" rupture.

The new DEIR is flawed and defective by not properly re-calculating the "g" force using the closer proximity of 0.5 miles and the maximum earthquake of 7.2. By using a lower "g" force the proposed building codes and mitigation measures use lower standards that will not be strong enough to withstand the true "g" forces of an earthquake. The "g" force selected affects the validity of the geological report.

Also in attempting to portray the known active Puente Hills Blind Thrust (PHBT) as having had three earthquakes in 24 years as potentially erupting every 400-2,600 years is simply wrong.

Regulators of the Japanese nuclear plant made a similar fatal mistake stating in a 2001 report the pattern of a blind thrust eruption creating a tsunami would occur every 800 to 1,000 years. When in fact Japan had suffered a 7.6 magnitude quake in 1896 creating waves as high as 38 meters and an 8.6 magnitude temblor in 1933 led to a surge as high as 29 meters. And in the last three decades Japan had experienced earthquake induced waves of more than 10 meters three times. (Exhibit 8)

5) The DEIR understates the maximum ground acceleration is 0.476 (g).

Referring back to Table 4.4-1 the new DEIR table quantifies the maximum peak ground acceleration for the "Elsinore-Whittier" fault at 0.476 (g). Ground acceleration is often referred to as ground shaking. The DEIR states on page 4.4-7 that:

> "At any location, the intensity of the ground motion is a function of the distance to the fault rupture the local soil and bedrock conditions and the earthquake magnitude".

As stated above in Section 3 the g force has been understated as a result of the failure to recalculate the distance to the fault and the earthquake magnitude.

The g force is an extremely important factor in determining the seismic designs of structures.. It is used to assess the potential structural damage caused by a quake. If the "g force" is understated the analysis is flawed and results in underestimating the potential acceleration and damage that result from an earthquake.

The EQ Fault Summary on page L-126 and L-127 (Exhibit 5) list a column on the far right labeled "Est. Site Intensity Mod. Merc." This column lists roman numerals for earthquakes. These roman numerals refers to the Modified Mercali Scale which is listed below.

I. Instrumental	Generally not felt by people unless in favorable conditions.
II. Weak	Felt only by a few people at best, especially on the upper floors of buildings. Delicately suspended objects may swing.
III. Slight	Felt quite noticeably by people indoors, especially on the upper floors of

	buildings. Many do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.
IV. Moderate	Felt indoors by many people, outdoors by few people during the day. At night, some awaken. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rock noticeably. Dishes and windows rattle alarmingly.
V. Rather Strong	Felt outside by most, may not be felt by some outside in non-favorable conditions. Dishes and windows may break and large bells will ring. Vibrations like large train passing close to house.
VI. Strong	Felt by all; many frightened and run outdoors, walk unsteadily. Windows, dishes, glassware broken; books fall off shelves; some heavy furniture moved or overturned; a few instances of fallen plaster. Damage slight.
VII. Very Strong	Difficult to stand; furniture broken; damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken. Noticed by people driving motor cars.
VIII. Destructive	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture moved.
IX. Violent	General panic; damage considerable in specially designed structures, well designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X. Intense	Some well built wooden structures destroyed; most masonry and frame structures destroyed with foundation. Rails bent.
XI. Extreme	Few, if any masonry structures remain standing. Bridges destroyed. Rails bent greatly.
XII. Cataclysmic	Total destruction - Everything is destroyed. Lines of sight and level distorted. Objects thrown into the air. The ground moves in waves or ripples. Large amounts of rock move position. Landscape altered, or leveled by several meters. In some cases, even the routes of rivers are changed.

The Whittier Fault is considered a category "X" (based on the L-126 data) or " Intense Few, if any masonry structures remain standing. Bridges destroyed. Rails bent greatly". This information should be included in the body of the DEIR report.

Given an earthquake of this magnitude on the Whittier fault or the Puente Hills Blind Thrust would destroy "masonry and frame structures" and "rails would be bent" it goes without saying that the pipeline would bend and the tanks and wells would also fail.

Why did the drafters failed to include this column of Modified Mercali Scale in Table 4-1 and instead bury it the last of 12 appendices and on page 126. Why is the explanation of this Mercali Scale not in the

either the main body of the DEIR or the appendix. The answer to these question is the original DEIR did not want to include a geological survey and attempted to conceal these critical facts.

The United States Geological Survey created a commonly used Instrumental Intensity scale that shows peak ground acceleration and peak ground velocity on an intensity scale which ranks and categorizes the "g" forces.

WHOW-9

Instrumental Intensity	Acceleration (g)	Velocity (cm/s)	Perceived Shaking	Potential Damage
I	**< 0.0017**	< 0.1	Not Felt	None
II-III	**0.0017 - 0.014**	0.1 - 1.1	Weak	None
IV	**0.014 - 0.039**	1.1 - 3.4	Light	None
V	**0.039 - 0.092**	3.4 - 8.1	Moderate	Very light
VI	**0.092 - 0.18**	8.1 - 16	Strong	Light
VII	0.18 - 0.34	**16 - 31**	Very Strong	Moderate
VIII	0.34 - 0.65	**31 - 60**	Severe	Moderate to Heavy
IX	0.65 - 1.24	**60 - 116**	Violent	Heavy
X+	> 1.24	**> 116**	Extreme	Very Heavy

Based on Table 4.4-1 with a "g" force of 0.46 puts the Whittier Fault in category VIII. Category VIII would be perceived shaking "violent" with potential damage of "moderate to heavy."

A closer reading of the text of the original DEIR on Page 4.4-8 states an alarming contraction based on historical facts.

> "The 1987 Whittier Narrows earthquake damaged more than 10,000 buildings in the Whittier area and destroyed 123 single-family homes. The earthquake measured 5.9 on the Richter scale and produced a peak measured acceleration 0.63 six miles from the epicenter."

It is proven that the "g" force was 0.63 six miles away, why does the current table use conflicting data, which understates the known risk. Further given that the distance of the rupture was decreased from 2.0 miles to 0.5 miles and the maximum magnitude increased from 6.8 to 7.2 magnitude the "g" force acceleration rate must correspondingly increase because ground acceleration is a mathematical function of the distance and magnitude of the earthquake.

The old DEIR goes on to state:

> For instance, ground accelerations exceeding 1 g were recorded far from the epicenter of the Northridge earthquake. *It is possible that accelerations near or over the upper bound earthquake ground motion could occur anywhere within or adjacent to the Project area.*

Further that report again states information contradicting 0.46 g stating on page 4.4-8

> The Southern California Earthquake Center indicates that local, possibly unknown or unrecognized surface faults present higher earthquake risks than known, large regional faults for most areas of Southern California, including the site, may generate ground accelerations in excess of 1.0 peak ground accelerations (g).

A 1.0 "g" ground acceleration would be a category IX with perceived shaking "violent" and potential damage "heavy".

The mitigation measures for oil rigs and pipelines must be re-evaluated based on the known historical higher peak ground accelerations. The EQFault Summary is deficient and flawed and the subsequent analysis of Heathcote is flawed based on this "g" error.

6) The DEIR fails to assess the potential damages and losses of an earthquake.

The new DEIR states in the main body of the report:

> Based on these predicted ground accelerations and underlying earth material conditions, moderate to severe ground shaking due to a seismic event on a nearby fault could potentially cause damage to the proposed structures (Heathcote Geotechnical 2011).

As previously cited above the Southern California Earthquake Center assesses the probability of a major earthquake greater than 6.7 magnitude is 99.7%. And the probability of a 7.5 magnitude earthquake during the next 30 years is 46%.

The potential damage and economic losses could be staggering. The DEIR fails to quantify these losses. And in any case they have actually increased the probability for damages and losses by proposing drilling sites on known earthquake fault lines, including "one of the most significant seismic risks in Southern California (Puente Hills Blind Thrust) and ignoring the liquefaction and earthquake induced landslides hazardous zones.

WHOW-10

Another seismic study completed in 2005 by the Southern California Earthquake Center found

> "Potential earthquakes on the Puente Hills Blind Thrust beneath the Los Angeles area could result in 3,000 to 18,000 fatalities, 142,000 to 735,000 displaced households and

more than $250 Billion in total damages according to U.S. Geological Survey and Southern California Earthquake Center (SCEC) research. (Exhibit 9)

The Southern California Earthquake Center (SCEC) is a consortium funded by the National Science Foundation (NCF) and the USGS. SCEC involves over 400 scientists at more than 50 research institutions and is headquartered at the University of Southern California."

It is disturbing the DEIR fails to bring forth this important assessment of loss and damages.

The amount of potential damages and loss of property and human life far outweigh any potential royalties for oil. These losses render the entire project as technically infeasible.

This information is far too important for any reasonable person to ignore and comes from a well established large group of accredited scientists.

7) **The DEIR improperly defers a hydrology study until after the approval of the CEQA and CUP**

In order for the DEIR to select preferred alternatives and mitigation measures it must have timely and accurate data before it arrives at these conclusions.

The DEIR recognizes the need for a hydrology study. However the DEIR defers these studies until after the CEQA approval process.

Again this is a piecemeal process that is unacceptable by CEQA standards.

It has been shown above that the preferred alternatives selected by the DEIR are in liquefaction and landslide hazardous zones. Liquefaction will cause structures and pipelines to fail in times of stress. The DEIR based their selections and conclusions on flawed input regarding "g' forces, proximity to earthquake fault and maximum magnitude. It is of paramount importance that the hydrology studies be performed beforehand to make an informed analysis and recommendation.

It also is readily apparent when walking the project area, looking at the areas surrounding Catalina Avenue and the project site, that the road is in a low lying gulley water runoff areas prone to flooding. A hydrology study done prior to CEQA approval would properly examine any additional risks including the 100 year flood.

Also in walking the project area there are very visible areas of landslides on the sides of the hills from water erosion due to rain. These slides possess additional risks including mudslides, rockslides and the above mentioned landslides. WHOW-11

It is also imperative that the public has the hydrology studies made available to them so that they can have their input on this issue in the CEQA process. By completing the hydrology studies after approving the final EIR and mitigation measures, it will be too late for the public to have any input or recourse. Further,

we believe that any court or appellate court would want to be able to review these critical documents as part of the administrative record.

Not providing a hydrology study makes this DEIR defective and is another glaring example of the piece-meal process undertaken by the City.

8) The DEIR provides insufficient mitigation measures given the geological information.

Prudent mitigations measures that should be included are:

a) All drilling rigs, structures and pipelines to built to withstand a 7.2 magnitude earthquake on either the Whittier Fault or the Puente Hills Blind Thrust.
b) All drilling rigs, structures and pipelines to be built to withstand a peak ground acceleration of 1.0 g.
c) All drilling rigs, structures and pipelines to be built to withstand a vertical rupture of 2 feet or a vertical acceleration of 1.6 g.
d) No permanent or temporary structures or pipelines to be built in liquefaction hazardous zones.
e) No permanent or temporary structures or pipelines to be built in areas prone to earthquake induced landslide zones. WHOW-12
f) No permanent or temporary structures or pipelines to be built in areas prone to lateral spreading.
g) No permanent or temporary structures or pipelines to be built on areas that have landfill.
h) No permanent or temporary structures to be built in areas subject to flooding.
i) No oil or gas wells or directional drilling to be drilled in areas subject to liquefaction.
j) No oil or gas wells or directional drilling to be drilled in areas subject to earthquake induced landslides.
k) No oil or gas wells or directional drilling to be drilled in areas subject to lateral spreading.
l) No roads to be built on areas subject to liquefaction, earthquake induced landslides, lateral spreading or in flood zones.

9) The known direct consequences of an earthquake are grossly understated.

The DEIR does admit the following:

"**Significant and unavoidable impacts to surface and groundwater quality could occur from a rupture or leak during oil drilling operations or from pipelines or other infrastructure. These impacts could not be mitigated to insignificance**."

The original DEIR stated:

"However directional drilling could encounter splays that would be prone to sympathetic movement as a result of a significant event along the Whittier Fault or another nearby fault."

We believe that these "catch all" statements grossly understate the following risks.

a) Slope Failure. The selection of the drilling site immediately adjacent to a landslide zone poses a significant threat. The proper mitigation measure is to move the site to an area not prone to liquefaction or landslides.

b) Fire and or explosion. The Project Site is in an area designated as a very high fire severity zone for wild land fire (CAL FIRE 2010).The project will have a flare directly next to rigs, wells and the pipeline. In the event of an earthquake or landslide this flare would be the match to ignite the entire area. Much like Sendai, Tokyo an explosion would render any back up switches or safety measures inoperable.

c) Water contamination. The proposed pipeline is over 2.8 miles and transverses the entire project area and continues through residential neighborhoods. The rupture of the pipeline cannot be understated. This risk has the potential for polluting and contaminating the groundwater supply. Given that this pipeline is in known liquefaction zones it is unacceptable risk that cannot be mitigated.

d) Increased risk of seismic activity. There is recent scientific evidence that drilling increases the probability of earthquake. See attached study of The Geysers in Northern California (Exhibit 10).

e) Emergency response will be insufficient to control fire and rescue. A natural disaster such as an earthquake would tax all the local immediate responder resources. An explosion, fire or rupture would exacerbate the damages and losses.

f) Flooding. At this time it is unknown if the potential for flooding could impact the project drilling site since a hydrology study has not been performed. Given that the road and adjacent areas are in low lying areas known for flooding this is a risk that remains to be assessed. WHOW-13

The Puente Hills Landfill Authority has listed many of these same concerns with their original comment letter on the original DEIR from their Citizens Technical Advisors Committee noting

Section 4.4 Geological Resources
- Despite the acknowledgement that earthquake effects might top 1g of acceleration (and up to 1.6x vertical acceleration) and statement of significance criteria, the DEIR contends that there would be no significant effect on the Project from geologic hazards. This seems to defy logic considering the loss of non-pressurized tanks in the 1987 Whittier earthquake and the need for zero tolerance of the community of any likelihood of such an event.

- The DEIR should rethink GR-1a based on a ground acceleration above .5g. The inspections performed pursuant to GR-1d will do little if the design cannot withstand vertical accelerations on the order of 1.6g.

- With respect to the seismic retrofits proposed in GR-1d, what will be the procedure to assure that these actions take place? Since earthquake preparedness and update of codes has historically taken place on the heels of seismic events, what guarantee does the community have that the current codes will withstand the potential accelerations that could take place?

- The potential for liquefaction is deemed to be less than significant with mitigation since the DEIR declares that the project is not located on the State's seismic hazard zone maps, even though the Whittier Narrows Fault is located less than two miles from the site and no onsite investigation was performed. It seems intuitive that construction of a major facility at the mouth of a "riparian" canyon with seasonal water flow in ungraded alluvium soil could experience liquefaction effects.

- Due to unanticipated biological consequences and slope/soil conditions, it may be impossible to repair alternative access routes as anticipated in GR-1b due to extreme slope conditions located in the Preserve to the north of the project site.

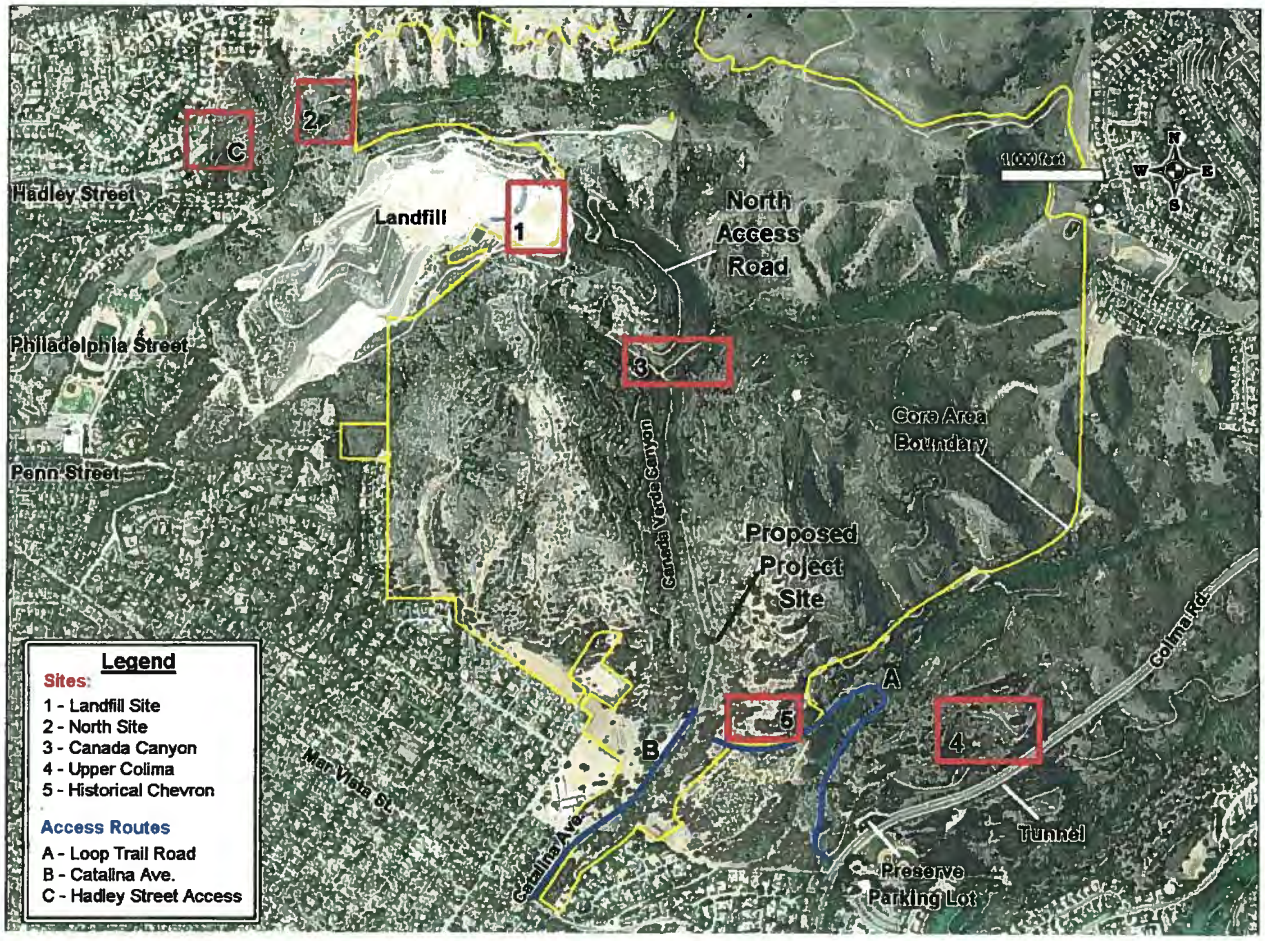
Reference is also made to the December 6, 2010 original DEIR comment letter submitted by the Los Angeles County Regional Park and Opens Space Department, specifically pages 19-23 which articulates many of the same grave concerns regarding geology.

Based on the above points 1-9 referred to in this section it is clear that the proposed site is not technically feasible. Any decision to use this project site puts the residents in harm's way. Not only would be selecting this project drilling site be arbitrary and capricious but it would be grossly negligent.

(The above geology section has been completed with the direct assistance of Peter J. Fischer Ph.D, Emeritus of Geological Sciences CSU Northridge.)

Savage Canyon Landfill Site Alternative

It is blatantly obvious by looking at the below aerial photo (Figure 5-1 from page5-4) that the Savage Canyon Landfill site is a far superior site.



The revised DEIR now affirms this.

> *"The Landfill Site Alternative has advantages over the proposed Project because it would be farther from residential locations and would be located entirely outside of the Preserve. This reduces the impact in biology, safety and risk of upset as well as noise, air quality and odors.* However, none of these are significant impacts associated with the proposed Project. As there would not be any development within the Preserve, there would be benefits in terms of policies related to biology, impacts to nursery and nesting areas within the core habitat area and reducing the total loss of habitats. In addition, impacts to wildlife movement for this Alternative would be less than those described for the Proposed Project, which is located within the Preserve where wildlife are less accustomed to human disturbances. In addition, there would not be any traffic utilizing Catalina Avenue and Mar Vista Street and traffic impacts would be reduced over the proposed Project as Penn Street currently operates at an acceptable level of service.

> *The disadvantages of this alternative over the proposed Project are that there would be a substantial reduction in the amount of oil that could be recovered from the reservoirs, estimated at recovering 52 to 59 percent of the amount that the proposed Project could recover.* There would also be potential impacts to the life of the Landfill as the development could infringe upon areas of the Landfill that are planned for future waste disposal. In addition, there could still be biological impacts to occupied California gnatcatcher habitat and to the wildlife corridor as the location is closer to "High Quality" habitat, thereby potentially impacting wildlife movements through the corridor. Finally, permitting of oil and gas facilities within *a Landfill operation is considered speculative* and the outcome of an application for such a Project is unknown."

Not selecting the Savage Canyon Landfill as the Preferred Alternative unequivocally demonstrates that the basis for site selection is the economics i.e. the City and oil companies can pump more oil. This is a fatal flaw in the DEIR.

The DEIR acknowledged list of substantial advantages include:

a) Farther from residential locations;
b) Located outside the Preserve
c) Reduces impact of Biology
d) Reduces impact of Safety
e) Reduces impact of Noise
f) Reduces impact of Air Quality WHOW-14
g) Reduces impact of Odors.
h) Less impact on wildlife
i) Benefits to Preserve & Core Habitat
j) Less Traffic

In addition to these DEIR acknowledged impacts, unacknowledged impacts are the landfill site is graded, flat and

a) not prone to landslides;
b) not in a liquefaction seismic hazard zone;
c) not prone to flooding;
d) less grading and earth removal;
e) and as already been compromised environmentally

It is worth noting that the *original* DEIR summarily dismissed this landfill site stating

> "However, the land use impacts under this alternative would require significant amendments to the existing landfill permits with the State that could take a long time to achieve. It is also unknown whether such an activity would even be approvable with the constraint of landfill operations and state and federal regulations. Finally to reach sufficient quantities of the oil reservoir this alternative would require drilling within the Preserve (at the East Well Site) In

> addition to drilling at the landfill, which would retain the aesthetic and recreational impacts associated with the East Well Site.
>
> The alternative appears speculative and out of the jurisdiction control of the City and therefore has been eliminated from further consideration."

As a result of the original DEIR completely threw out this alternative. Please review our original comment letter on this arbitrary and capricious decision.

The revised DEIR states that the "Landfill operation is considered speculative."

The underlying basis for the Landfill site not being selected is the oilmen's avariciousness. Not only will it yield only 52-59% of the oil, but that the costs of obtaining and transporting that oil will be significantly higher. By moving the drilling site to the Landfill, the horizontal drilling distance, drilling time and the increased length of the pipeline dramatically affect the profits of Matrix/ClaytonWilliams.

The DEIR states the project will produce up to 10,000 barrels of oil per day. This rapacious consortium is not satisfied with 5,900 barrels a day. At current market prices of $100 a barrel for oil that would only gross them $215,350,000 per year and still leave them insatiated.

CEQA guidelines section 15126 (d) (1) state that **reasonable alternatives must be considered "even if the substantially impede the project or are more costly."**

The alternate site selection of the Savage Canyon Landfill greatly reduces the impact to neighbors and the preserve and is a far superior site selection even if it is more costly.

The revised DEIR acknowledges the benefits of the landfill site but fails to quantify these improvements in a side by side comparison quantifying the impacts. Instead it openly confesses:

> **"Since detailed analyses of the alternatives and the proposed Project <u>have not been completed</u> at this stage of analysis, this assessment is preliminary, based on the best judgment of the preparers."** (Page 5-1)

CEQA requires this critical information so that there is sufficient information to allow for meaningful evaluation, analysis and comparison with the proposed project. The City of Whittier and Matrix/ClaytonWilliams have had over two and one half years to perform the proper analysis and now admit it is incomplete and preliminary.

Is the real reason that this alternate landfill site analysis has not been completed is that such analysis would prove that alternative to be the more feasible environmental solution?

The fact that this critical analysis in the selection of alternatives "**<u>has not been completed</u>**" mandates that the revised DEIR go through a third revision and complete the full analysis. This fatal flaw screams for a new, third DEIR and a re-circulation.

The selection of the proposed drilling site clearly demonstrates the lack of good faith in preparing the revised DEIR. The revised DEIR reflects the inherent biases of the DEIR and to mitigate the costs and risks to the oilmen, enhance the profits to the oilmen all at the expense of schools, homeowners and wildlife and to fast track it through even though a detailed analysis has not been completed. In the business world this is commonly known as a "cram down."

Noise

The revised DEIR discusses noise on page 4.5-20

> Noise produced by the proposed Project operations shall be considered significant if any of the following conditions apply:
>
> • Operations or drilling cause neighboring use, property line CNEL noise levels to exceed the City of Whittier General Plan Noise Levels; 60 dBA CNEL at a residential receptors, 65 dBA at schools, or 70 dBA at neighborhood parks.
>
> • Operations or drilling cause hourly, A-weighted equivalent noise levels at the property line of a neighboring residential use to be more than 3 dBA above the minimum existing baseline value.
>
> • Operations or drilling cause hourly, A-weighted equivalent noise levels at the property line of a neighboring non-residential use (school or recreational area) to be more than 5 dBA above the minimum existing baseline average value.
>
> • Operations or drilling that produces noise that includes a pure tone or pure tones when measured at a neighboring residential property. WHOW-15
>
> • Vibration levels at neighboring use property line exceed the County of Los Angeles Code Vibration Levels of 0.01 inches per second vibration velocity limit.
>
> • Construction activities occur outside of the City of Whittier Municipal Code timeframe of 7 a.m. to 6 p.m. weekdays or 8 a.m. to 5 p.m. on Saturdays or noise levels exceed the applicable jurisdictions noise standards for construction.

In January 2010 the Whittier City Council voted to amend the Noise Ordinance eliminating vibration and deleting specific decibel levels. This change in ordinance was done specifically to alter the outcome of the DEIR by changing the standards of evaluation. This ordinance change again shows the predisposition of the City of Whittier to slant the outcome of the EIR process.

The amended DEIR ignores our previous request that all mitigation measures and analysis be done based on the Noise Ordinance when the lease was signed in 2008. The revised DEIR must at a minimum calculate the noise impact based on the old standard when lease was affected based on the fact that was the law in effect when the lease was signed and again with the new noise ordinance comparing the different outcomes.

We believe the DEIR is defective by using a pretextual noise ordinance to eliminate pre-existing laws that would have made it a violation of those laws and subject to "disturbing the peace" criminal enforcement.

The DIER also fails miserably by allowing drilling to continue 24 hours a day 7 days a week unabated. The quite time from 7 p.m. to 7 a.m. should be a complete ban on drilling. Residents are entitled to the quiet enjoyment of their homes even if it takes longer to drill the wells and the profits aren't achieved as quickly. That is part of the mitigation.

Section 4.5 -16 of the revised DEIR addresses the Los Angeles County ordinance on Construction Noise and refers to Section 12.08.440 of the Code and states :

> Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m. or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

WHOW-16

The mitigation measure must include keeping with this county ordinance. Homes on the north border in Hacienda Heights which is unincorporated Los Angeles County will be directly affected.

Approximately two month ago this same Whittier City Council rejected a Conditional Use Permit request for a proposed 7-11 store on a property with an existing commercial zone, on highly trafficked boulevard corner, because the Council did not want it to operate all hours of the night.

Further the mitigation measures does not eliminate diesel engines and require a substitution of electric engines that are much quieter and do not emit toxic emissions.

WHOW-17

It is longstanding CEQA law that mitigation measures are implemented to minimize the project's significant environmental impacts. Clearly a no night time drilling is a reasonable and feasible mitigation measure and is the acceptable standard in Los Angeles County.

WHOW-18

In addition, the revised DEIR again failed to obtain complete information as required by CEQA. On page 4.5 -26 it states:

> Bureau of Land Management drilling noise studies indicate noise levels from drilling of 83 dBA at 50 feet (BLM 2001). A noise study performed for drilling operations in Los Angeles at the Baldwin Hills oilfield indicates equivalent noise levels of 82 dBA from drilling operations (Arup Acoustics 2004). However, information on the specific activities undertaken and details of the equipment arrangements, such noise reduction techniques**, were not available for these studies, so a direct comparison is not possible.**
>
> The Baldwin Hills Environmental Impact Report (EIR), prepared for an urban oilfield development in Los Angeles County, conducted noise monitoring of ongoing drilling activities and pumping units (Los Angeles County 2009). Noise levels during drilling, casing, and cementing activities were 77, 73, and 80 to 82 dBA at 50 feet, respectively. Additional noise monitoring at the Baldwin Hills by Behrens and Associates indicated

that noise levels associated with drilling range up to 80 dBA 50 feet from drilling equipment.

The preliminary information provides decibel levels as high as 82 dBA. It is unknown if these decibel levels were after mitigation measures.

Table 4.5-8 list below list the anticipated level of noise and disturbance.

Table 4.5-8 Drilling Activities Equipment Specific Noise Sources	**Equipment Quantity**	**Peak Day, Fraction of Time Used**	**Sound Level at 50 feet (dBA)**	**Location**	**Source**
Equipment					
Mud Mixer	1	0.9	76	Ground Level	Kenai Drilling. Measured value from shaker/mixer area
Mud Pumps and Diesel Engines, Caterpillar C-15	2	0.9	69	Ground Level	Kenai Drilling. Measured value from mud pump area
Slickline Engine *	1	0.2	86	Truck-mounted	EPA, 71, Hwy truck, <35 mph
Shakers	2	0.5	69	Ground Level	Kenai Drilling. Measured value from mud pump area
Well-logging Unit	1	0.2	86	Truck-mounted	EPA, 71, Hwy truck, <35 mph
Cementing *					
60-ton Crane	1	0.2	81	Ground Level	FHWA Construction Equipment Noise
Coil Tubing Unit *	1	0.2	86	Truck-mounted	EPA, 71, Hwy truck, <35 mph
Backup Alarms, Voices, Annunciators	1	0.030	94	Ground Level	OSHA, 5 dBA above crane level
Metal-on-Metal noise	1	0.006	100	Ground Level	Arup Acoustics, Whittier, maximum banging
Metal-on-Metal noise	1	0.006	100	Rig floor	Arup Acoustics, Whittier, maximum banging
Metal-on-Metal noise	1	0.006	100	Boards	Arup Acoustics, Whittier, maximum banging
Cutting Conveyor	1	0.9	69	Rig floor	Kenai Drilling. Measured value from mud pump area
Drill Rig Engines, Caterpillar C-15	1	0.9	84	Ground Level	Kenai Drilling. Measured value from generator house inside (no control)
Drawworks Engines, Caterpillar C-15	1	0.9	74	Rig floor	Kenai Drilling. Measured value from drawworks area
Drawline Brakes	1	0.030	80	Rig floor	Arup Acoustics, pipe handling

WHOW-19

27

It is unimaginable that this level of noise above 60 dBA would be tolerated during the day let alone at night between 7:00 p.m. and 7:00 a.m., and all day Sunday for 5 straight years .

The attached table from the DEIR illustrates the immediate proximity of the oil drilling to residences (1,060 feet), schools (1,360 feet), playgrounds (940 feet) and the public trails (350 feet). It is easily understood on why the City was compelled to change the noise ordinance to accommodate the plan.

Table 2-4 Distance from Proposed Project (feet) **Project Component Location**	**Ocean View Residences**	**School Buildings**	**School Playground**	**San Lucas Drive Residences**	**Public Trails**
Well Pad	1,460	1,920	1,540	1,950	630
Processing Pad	1,060	1,360	940	1,290	350
Oil Plant Processing-Pad	1,200	1,620	1,230	1,670	720
Gas Plant					

Further in mitigation measure N2-3 states

> Provide a comprehensive noise abatement study, including noise and vibration monitoring at nearby sensitive receptors, under contract and supervision of the City, to monitor noise and vibration from the drilling and operations in the community, which shall have the authority to shut-down operations and require additional mitigation if the noise criteria are exceeded.

This is another major deficiency of the DEIR because it is more piecemeal approach, incorporating a study after the fact.

The drafters of the revised DEIR confess that they failed to obtain critical information on noise reduction studies in a nearby Los Angeles oil field. This failure to include the comprehensive noise study is another critical admission that the DEIR is incomplete and another attempt to conceal information that is adverse to the project.

The overwhelming evidence in the revised DIER vividly indicates that a third revised DEIR should be performed and re-circulated. The basis for this request is that the second DEIR is inaccurate and incomplete. The following areas need to be readdressed:

1) Mitigation Measures need to be re-assessed and implemented prior to any drilling (whether temporary drilling or permanent drilling) on any site. WHOW-20
2) The "g" ground acceleration rates need to be re-performed based on the inaccuracies in the revised DEIR and the corresponding impact on building codes and mitigation measures. WHOW-21

1) A full and complete hydrology report needs to be completed. WHOW-22
2) The technical feasibility of the proposed project site, roads and pipeline needs to be re-examined based on the liquefaction, landslides and earthquake factors including but not limited to the erroneous "g factor" (ground acceleration) calculations and analysis. WHOW-23
3) The full complete alternative analysis of the Savage Canyon Landfill must be completed and fully analyzed and disclosed. WHOW-24
4) The noise section failed to obtain, compare and include the noise reduction studies of the nearby Los Angeles oilfield. WHOW-25
5) The mitigation measure of a noise abatement study has not been completed and is not included. WHOW-26
6) The comment letters from both the original DEIR and revised DEIR need to published with the official responses from the drafters. Including the change in positions from the original DEIR positions. WHOW-27
7) That a good faith attempt be made by preparer that examines the entire project and proposed drilling sites with an unbiased approach, not based on conflicts of interest and economic considerations, but on the impact on the environment and residents of Whittier. WHOW-28

In the event that the City of Whittier and Matrix/Clayton Williams elects not to amend, correct and revise these significant deficiencies with a re-circulated third DEIR it will serve to prove that the CEQA process has been a sham and not been created with the significant degree of facts and analysis to provide decision makers and commentators with the accurate information that enables them to evaluate and review possible environmental alternatives and consequences intelligently.

The proposed lease grants use of the entire 1,290 public open acres to Matrix/ClaytonWilliams for an unlimited period of time. Based on Matrix/ClaytonWilliams past performance to date, we do not believe that they would be honorable and capable stewards of this environmentally sensitive open space preserve. It is for this reason we believe that the "No Project" is the best alternative.

Sincerely

Roy McKee

Geology Section

Peter J. Fischer Ph.D.

EXHIBIT 1

December 1, 2010

Mr. Jeffrey Adams
City of Whittier
Planning Services Manager
13230 Penn Street
Whittier, CA 90602

RE: Whittier/Matrix 1280-1290 Acre, Project Draft Environmental Impact Report

Dear Mr. Adams:

This letter is written on behalf of Whittier Hills Oil Watch (commonly known as "WHOW"), an unincorporated association boasting more than 4000 members from within and outside of Whittier, who, by way of petition, have trumpeted their opposition to the Whittier/Matrix mineral exploitation project ("Project") proposed on 1290 acres of land that has been set aside for open space, park and recreational uses by Proposition A among other laws.

These comments are submitted pursuant to the California Environmental Quality Act that provides the opportunity to officially comment on the Draft EIR (DEIR) for the above-proposed project. We firmly believe that CEQA is one of California's most important and fundamental environmental laws to guard and protect nature and society for present and future generations.

The comments will be presented under the following sections:

1. Failure to properly define the Project
2. Alternative Analysis
3. Geology
4. Fire Protection & Emergency Services
5. Socioeconomics
6. Noise
7. Hydrology & Water Resources
8. Pre-commitment prior to CEQA
9. Environmental Justice
10. Conclusion

1. Failure to Properly Define the Project

WHOW contends that the DEIR fails to identify and analyze the proposed project. The project approved by the City of Whittier is the 2008 Whittier/Matrix lease.

The Matrix Mineral Extraction Lease provides in part:

> WITNESSETH: Lessor, for and in consideration of the rental paid upon execution hereof, receipt of which is hereby acknowledged, and Lessee's covenants and agreements hereinafter contained, does hereby lease, let and demise unto Lessee the land hereinafter described (hereinafter called the "Leased Land"), subject to the covenants, conditions' and limitations

hereinafter set forth, for the purposes and with the exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land, similar to the above-mentioned substances except for water (but not excepting water which may be produced in association with leased substances which may be used by Lessee in its operations on the Leased Land, but not sold) and geothermal resources (hereinafter collectively called "substances") and producing, extracting, taking, treating, storing of oil, removing and disposing of such substances from the Leased Land together with the right to construct, erect, maintain, operate, use, repair, replace and remove pipelines, telephone, telegraph and power lines, tanks, machinery, appliances, buildings, and other structures, useful, necessary or proper for carrying on its operation on the Leased Land, and rights-of-way for passage over, upon and across and ingress and egress to and from the leased land, or neighboring lands pooled therewith for any or all of the above-mentioned purposes. Lessor shall have the right to occupy and use the leased land in any manner and to any extent not inconsistent with Lessee's rights or in interference with Lessee's operations hereunder. The land hereby leased is situated in the County of Los Angeles, State of California, and described in Exhibit "A", attached hereto and incorporated herein by this reference, and containing 1280 acres, more or less. (Emphasis added.)

4.2. Continuous Operations. If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at anyone time, the continuous development obligation shall

not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production.

Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled. (Emphasis added.)

17. Definitions. The following terms or phrases, and variations thereof, except where the context requires a different meaning, shall have the following meanings in this Lease:

(b) Lessee shall have met its minimum development program under Paragraph 4 and the Leased Land shall be deemed "fully drilled" when there has been drilled a sufficient number of oil and/or gas wells to earn Well Tracts, as hereinafter defined, to encompass all of the Leased Land.

(d) A "Well Tract" as used herein shall mean the following:

i. In the case of an oil well producing from a depth of 4,000 feet or less – forty (40) acres;

ii. In the case of an oil well producing from a depth of 4,000 feet to 8,000 feet or less – eighty (80) acres;

iii. In the case of a well producing from 8,001 feet or deeper – one hundred twenty acres;

iv. In the case of a gas well producing from a depth of 8,000 feet or less - one hundred sixty (160) acres;

v. In the case of a gas well producing from 8,001 feet to 12,000 feet - three hundred twenty (320) acres;

vii. In the case of a horizontal well - 240 acres in compact shape evenly spaced on either side of the horizontal or near horizontal portion thereof open to production.

viii. In the case of substantially deviated well - the greater of eighty (80) acres, or the acreage earned by the depth of the producing interval thereof, or if such well is of the type described in subparagraph ix., below, the acreage therein provided for.

ix. In the case of a well drilled into multiple, separate, accumulations of oil or gas which are reasonably determined to be capable of production in paying quantities, 660' on either side and 330' on either end of that portion of the well bore from the first such accumulation encountered to the last such accumulation encountered and open to production.

The DEIR examines a proposed project that has consistently been characterized by the City as a seven-acre oil-drilling project. It is evident from the 2008 Whittier/Matrix lease that rights of exploitation apply to all 1280-1290 acres and include mining and other rights that are substantially invasive and threaten to consume all 1290 acres of Proposition A open space acquired for preservation and restoration of natural habitat and recreational activities.

Whittier's failure to commission a DEIR that examines all of the rights transferred to Matrix Oil in 2008 is a classic illustration of piecemealing under CEQA.

2. Alternate Analysis

Comments in this section are not intended to advocate for a particular drilling alternative or access road, but instead addresses reasons the DEIR is fatally flawed. Glaring oversights and manipulation of facts and data merely serve to mask the fact that the "No Project" alternative is the only feasible alternative.

This DEIR was to consider alternative sites for the proposed project. These alternatives "would avoid or lessen any of the significant effects of the proposed project". Section 5.0 addresses the "Whittier Project Alternative Analysis" and Section 6.0 is a "Comparison of Proposed Projects and Alternatives".

It is WHOW's position that DEIR is either biased or flawed, or both, in failing to make a fair and reasonable assessment of the project alternatives. Section 5.12 lists five possible locations for facilities.

1) A consolidated Central Site
2) A Savage Canyon Landfill Site
3) An upper Canada Canyon Consolidation Site
4) An Upper Colima Road consolidated Site
5) The Historical Chevron processing Facility Site.

DEIR Figure 5-1 is a map that depicts these five sites. Rather than evaluate all five sites, the DEIR instead took an unwarranted "screening approach" to blithely eliminate alternative locations at #2 Savage Canyon Landfill and #3 Upper Canada Canyon Consolidation. A cursory view of the map in figure 5-1 clearly shows that these two alternate locations would merit serious consideration given that they are considerably further away from schools, homes, public recreation trails and little league fields.

These two superior locations were not fully evaluated in the DEIR even though they satisfied the following self-imposed screening limits:

- The alternative is technically feasible;
- The alternative would lessen potentially significant impacts of the proposed project; and
- The alternative would attain most of the basic objectives of the Project.

Specifically, Section 5.1.2 of the DEIR states:

> The ability to extract oil and gas from the reservoir by directional drilling is a function of the depth of the oil and gas containing layers and the size and ability of the drilling rig. In general the shallower the layers, the closer the well must be to the drilled area. The larger the drilling rig, the farther the wells can be from the area. The ratio of the horizontal distance to the vertical distance is called the "throw ratio." For the proposed drilling rig, Matrix indicates that a throw ratio of 4.0 could be achieved with a maximum horizontal distance of 7,000 to 8,000 feet.
>
> In general, the alternative sites would have to be near the proposed Central Processing Site (within 0.5 miles) to drill and extract the resources from both the north end and south end of the delineated reservoir while not exceeding a horizontal to vertical throw ratio of 4.0 or a distance of 8,000 feet.

The fundamental analysis belying these above referenced statements is now being challenged. Matrix Oil has a public web page www.whittieroil.com. Under the header "Environment & Technology" Matrix boast of their Horizontal Well Technology. Specifically stating that:

> "Many advances have been made in oil field technology in the last 20 years. ***One of the impressive advances is in drilling technology that allows for the drilling of long reach wells up to 10 miles away from a central point.*** Typically distances away from a central point or pad range from one to three miles. This allows many wells to be drilled from one point and thus minimize the impact to the surrounding areas. "(Emphasis added. See Exhibit 1)

Matrix goes on to boast that "All of the proposed Matrix wells will be high-angle and long reach wells."

WHOW's challenges to this DEIR section are:

1) By Matrix's own admission the technology reaches 10 miles away (52,800 feet). This ten mile radius should be the standard discussed in 5.1.2; that the "distance must be within directional drilling technology's reach limits and still enable recovery of a sufficient percentage of the reserves." The standard used in the DEIR of 8,000 feet is "short-arming" and is inappropriate.

2) The assumption used in the analysis is that "in general the alternative sites have to be near the proposed Central Processing Plant." The Central processing Plant is not limited to only one location, nor is the 0.5 mile standard use consistent with the technology of horizontal drilling as proffered by Matrix on their website. The Central Processing Plant should not be given as one fixed immovable location. The lease is for the entire 1290 acres. The alternate site analysis should consider the

Central Processing Plant on both the Savage Canyon Landfill site and Upper Canada Canyon or any other area in the project.

3) Even using Matrix standard of 8,000 feet the original proposed project was within 400 feet of schools and homes. Intuitively any fair and reasonable alternate site analysis would start at a distance at least 6,000 to 8,000 from these homes and school.
4) Sections 5.0 and 6.0 fail to consider alternatives of a reduced number of locations and "still enable recovery of a sufficient percentage of the reserves."
5) Sections 5.0 and 6.0 fail to consider fewer pad acres as an alternative and "still enable recovery of a sufficient percentage of the reserves."
6) Sections 5.0 and 6.0 fail to consider fewer wells as an alternative and "still enable recovery of a sufficient percentage of the reserves.
7) Sections 5.0 and 6.0 fail to consider the changing of the location of the Central Processing Plant.
8) Section 5.0 and 6.0 fail to consider any alternative within the ten mile horizontal drilling radius and artificially impose an 8,000 feet outer limit.
9) The DEIR relies on the information provided by inherently biased Matrix instead of relying on independent outside expert advice. The writers and analyst of the DEIR failed to investigate Matrix own website.
10) The reference section lists a Carl Hathaway of Kenai Drilling. It is unclear whether he consulted on this section. It is also unclear of Hathaway's drilling expertise. His biography obtained on Kenai's website states that he worked on reserves reporting for Getty and then worked in the environmental and regulatory areas with Texaco. It does not state he is a petroleum engineer or if he has any expertise in actual oil drilling, horizontal drilling or any actual oilfield experience.
11) The maps and pictures used in Figures ES-3; 5-1; 5-3; 5-4 fail to include a "scale" which would provide the reader with a measuring benchmark to approximate distance.

Section 5.1.2.2 states that the Savage Canyon Landfill Site is owned by the City of Whittier. As previously stated this alternative would be furthest away from schools and homes compared to the other alternative sites and is already environmentally compromised as a landfill. The property, as seen in figure 5-3 is already graded and has the selected access road. In addition the noise, air quality, recreation, aesthetics and safety to mention a few provide a significant lesser environmental impact.

That the DEIR summarily dismissed this as a viable alternative is inexcusable and shines a bright light on the skewed objectivity of the analysis.

The DEIR curtly rejects analyzing this site stating:

> "However, the land use impacts under this alternative would require significant amendments to the existing landfill permits with the State that could take a long time to achieve. It is also unknown whether such an activity would even be approvable with the constraint of landfill operations and state and federal regulations. Finally to reach sufficient quantities of the oil reservoir this alternative would require drilling within the Preserve (at the East Well Site) In addition to drilling at the landfill, which would retain the aesthetic and recreational impacts associated with the East Well Site.
> The alternative appears speculative and out of the jurisdiction control of the City and therefore has been eliminated from further consideration. "

How is completing an EIR and applying for a Conditional Use Permit to change the use of a Natural Preserve and Habitat to a Proposed Oil Field any more significant and time consuming than putting an oil field in a landfill already owned by the City of Whittier? But the DEIR is unyielding and refused to even analyze what the significant impacts would be using a new standard that "It might take a long time to achieve."

The statement that "it is out of the jurisdictional control of the City" cannot be taken at face value. The proposed project is part of an LA County Prop 'A' Bond and written binding County Project Agreement. WHOW is unaware of prior mention that dealing with the County on the proposed oil field was "out of the jurisdictional control". In fact the City of Whittier has even gone so far to hire an unregistered lobbyist Esther Feldman to allegedly lobby the Los Angeles County Board of Supervisors at a cost of in excess of $200,000.

The DEIR also states that to reach sufficient quantities of the oil, the reservoir would require drilling at the East Well site. Again Matrix states they can drill horizontally ten miles. These two sites are less than two miles apart. And even if true regarding the reservoir, the alternative analysis should consider be that only drilling at the Landfill and recovering a percentage of the oil offers a mitigating effect. An alternate analysis should include drilling fewer wells, in fewer locations on fewer acres.

Lastly, the DEIR fails to acknowledge a material fact that the Savage Canyon Landfill currently hosts a methane gas plant and that this was the location of over 15 wells when Chevron Oil operated the field.

The DEIR is irreparably flawed by failing to include a complete analysis of Savage Canyon Landfill as an alternative.

These significant errors and omissions expose the biases in the approach to fairly analyze project alternatives. It is hereby requested that the Sycamore Canyon site be fully analyzed as a project alternative and not screened out as a viable technical site that would "attain most of the basic objectives of the Project".

Section 5.1.2.3 discusses the alternative at Upper Canada Canyon Consolidated Site (3). This site was preemptively eliminated. The first reason given is "drilling from this location would not be able to reach into some of the proposed reservoirs to the central and east areas as proposed under the Project without using a larger drilling rig as previously discussed." If the larger drilling rig is required and is much further back in the reserve then it will be out of the line of sight.

We have already stated that Matrix's website acknowledged they have the technology "to reach wells over ten miles away". And further have commented that the Central Processing Plant is not a fixed location and that alternatives locations for the Central Processing Plant should be re-examined.

The section candidly admits "this alternative could eliminate or reduce impacts related to construction and operation of the facilities on the surrounding residences since, under this alternative the facilities would be tucked further away deeper within the Preserve. Issue areas likely to improve under this alternative include the risk of upset, odor impacts associated with air quality, aesthetics, and noise. These impacts would be reduced because of the more remote location of the facilities and the correspondingly greater distance between residences and the drilling and processing operations.

The DEIR drafters come up with a double edged argument against the Upper Canada Canyon location that should be of great concern to all the proposed locations and question the true viability of the entire project. The drafters argue that by moving approximately 2,000 feet deeper into the project site there is serious risk of fire protection and geological issues with the Whittier Earthquake Fault. If there are fire and earthquake concerns in Upper Canada Canyon then those same concerns should be seriously considered in the entire project area. To opine that a mere 2,000 feet changes the risk of an earthquake or raging fire grossly underestimates the devastation that either of these events would bring. The entire 1290 acres proposed project area is a listed and known hazardous fire area which lies on a known active earthquake fault. The same reasoning should be applied to the entire project area and not isolated to one Upper Canada alternative.

In addition this section states that the Upper Canada Canyon site is incompatible with the Preserves Resource Management Plan (RMP). This entire project and all locations are incompatible with the Preserves Resource Management Plan. There is nothing in the RMP that allows for, nor selects a site for oil drilling.

We firmly believe that the Habitat's Resource Management Plan drafted in 2007 should be the guiding light and that NO PROJECT alternative is viable. But to use the RMP as a criticism on one location and not the other locations protected by the same RMP again reflects poorly upon the objectivity of the drafters of the DEIR.

This Upper Canada Canyon location merits a full and complete analysis to determine what the potential significant impacts are and to assess them against the other locations. Granted that this location may encroach core habitat, but the analysis is to determine which has the fewer and unavoidable impacts. The determination is not whether it impacts only animals and flora and to ignore the lesser impact on schools, homes and individuals. The inclusion of this location and analysis is for the citizens of Whittier, the council, staff and planning commission to be given fair and reasonable alternatives, not prejudged by a select few biased DEIR analysts.

The DEIR alternate site analysis failed to show the locations of the previous wells that were drilled by the old Cheveron Oil exploration before it was shut in. At a Friendly Hills Property Owners Meeting on April 22, 2009 an overhead presentation of map of the original wells clearly demonstrated that there numerous working wells on the Savage Canyon Landfill and the Upper Canada. This is further evidence that these alternate sites must be considered. (See attached Exhibit 2).

Also at this same Friendly Hills Meeting an additional overhead showed that Directionally Drilled wells from Sycamore Canyon and the Honolulu Terrace Drill site were viable alternatives. The overhead depicted the great lengths these wells could go to reach the oil in the Project area. (See attached Exhibit 3)

The DEIR did not provide any similar maps or pictures illustrating the direction, reach or number of directional horizontal wells overlaid the Project area even though this was a "sales tool" initially used to get local residents to buy in. This information obviously has been withheld from the DEIR and again reflects on the bias of the report. These same types of maps must be included, considered and analyzed in the DEIR.

Other Alternative Analysis should include Matrix existing Sycamore Canyon Oil Field and the Honolulu Terrace operation as alternate drilling, well and processing plant sites. Matrix has established that horizontal drilling can be used up to 10 miles. By using the existing

Sycamore Canyon and Honolulu Terrace site the redundancies of the upset of the environmental effects would be significantly mitigated.

3. Geology

The City of Whittier experienced a devastating earthquake in 1987 that is still very much on residents minds. Driving through Uptown Whittier some 23 years later, empty lots of building destroyed serve as current reminder of the ruin inflicted by the 5.9 Richter scale earthquake. The proposed project sits directly on this same active fault line. The earthquake risk is of paramount importance to local resident. The DEIR fails to address this issue in a meaningful manner.

The DEIR states on page 4.4-10 - "However, onsite investigation and soil testing **did not perform** a liquefaction analysis to assess liquefaction." Given this project lies on an active earthquake fault it mandates a liquefaction analysis be performed. Also do the Swiss cheese effect of horizontal drilling and the injecting of vast amount of water into 60 wells exacerbate the liquefaction and/or increase seismic activity risk. The EIR is flawed because no such analysis was performed.

The DEIR failed to include maps from the State of California showing Seismic Hazard Zones. Attached is an example of the type of seismic map that unequivocally shows the areas in or near the project area subject to liquefaction or earthquake induced landslides. It is not only unconscionable but shameful that this substantial liquefaction and landslide risk assessment is omitted. A close inspection of this map reveals that parts of the project area are subject to liquefaction or landslide risk. (See attached Exhibit 4).

The DEIR in table 4.41 provides a partial list of nearby earthquake faults. This partial list fails to include the San Andreas Fault and the San Jacinto Fault. All Californians know and worry about the "big one". This partial list excludes the most obvious and feared earthquake fault line.

The DEIR concludes in a grossly understated and insouciant manner at the bottom of page 4.4-8 :

> **"However it is probable that the Project areas will experience at least one major earthquake during the next 50 years"**

There is no further supporting data or statistical analysis put in any table format quantifying what the potential damages to loss of live or property would be from this probability. A much deeper explanation of "it is probable" needs to be explained including the actual probability, the potential locations and the magnitude. Further this explanation needs to address "*at least one* major earthquake". Dr Kit Miaymoto, who specializes in earthquakes and structural engineering, stated at the 2010 Imminent Danger Symposium that in California, the bad news is we have a major earthquake every 10 years.

The geology section also fails to address that concomitant risk of oil and gas explosion from the wells and or pipelines rupturing from earth quakes creating uncontrollable fires or toxic gas leaks.

Many of the mitigation measure cited at page 4.4 22-23 are future soil studies and soil engineering issues to be performed in the future and given to City of Whittier engineer. Page 4.4 -22 states

> "No specific testing and evaluation was performed in these areas to further assess the hazards. As such, all construction and improvements to be situated in and adjacent to these areas will require additional studies and mitigation measures to remediate the hazards in accordance with the County of Los Angeles Geotechnical

> Report Standards, State of California Special Studies 117 for seismic hazards and liquefaction and the standard of practice."

Page 4.4-23 candidly confesses:

> The appropriate mitigation measure from a geotechnical, land use and economic standpoint *can be determined in subsequent studies* that should be reviewed and approved by the City of Whittier. (Emphasis added)

These geotechnical studies must be done before the EIR is approved. Again, this is not only piece-mealing the EIR in violation of CEQA, but withholding critical information absolutely essential to properly assess the potential effects on the proposed project.

The DEIR fails to substantially address the risk that horizontal drilling can increase the risk of seismic activity. Even cursory comments such as those found on 4.4-22 are alarming.

> "However directional drilling could encounter splays that would be prone to sympathetic movement as a result of a significant event along the Whittier Fault or another nearby fault.
>
> If an earthquake occurred along one of these faults, the integrity of the well bore could be compromised where the borehole traverse the rupture surface. In the unlikely event that this occurred, under the worst-case scenario, the borehole could be sheared and sealed, thus preventing additional oil from the well."

This sounds like the recent Gulf Oil British Petroleum disaster just witnessed, waiting to recur. We all watched on television in awe how long it took to seal that well. In addition the use of the term "splays" is a blatant attempt to obfuscate the risk. Splay is a euphemism for open, spread apart or turn out. In other words burst or break. Should the tectonic plates shift 6 inches how many of the proposed wells would "splay"?

The document also specifically fails to illustrate the number of wells, their location, the length and the direction of the horizontal wells across the fault lines. Given that three different well sites are listed in the project description, homeowners would also like to know how close these horizontal wells come to their property lines.

The use of directional drilling in the project area, which lies directly on an active fault line creates a completely unacceptable risk for the citizens of Whittier.

For the above-mentioned reasons the geology section of the DEIR is grossly inadequate, fatally flawed and not curable by mitigation measures.

4. Fire Protection & Emergency Services

The Project area is in a Very High Hazard Severity Zone. The wildfire history of the Puente Hills area indicates that 85 fires have occurred since 1928. That averages out to nearly one fire per year (85 fires in 88 years). True to the averages, one fire broke out in the Project Area last September 2010.

The DEIR provides that "fuel modification areas create at least 30 feet clearance from all oil field equipment to reduce the potential for ignition sources for starting wildfires." This proposed 30 feet fuel modification zone appears to be grossly inadequate. No consideration is taken of the fact that the strong ocean breezes in the hills can propel these sparks greater than 30 feet. In addition, with

oil towers that are 130 feet tall a 30 foot fuel modification zone would be insufficient based on a tower toppling, teetering or throwing off sparks. At a minimum the fuel modification zone should be 130 feet around any oil field equipment.

The mitigation measures do not include any fuel modification zones for the schools and residences that abut the outer limits of the project areas including such streets as Ocean View, Lodosa and Catalina. Currently the city does a weed abatement, with a 100 foot clearing, once a year. The mitigation measures for the school and homes should include an optimal fuel modification zone of 400 feet for the school and 200 feet for residences. This would include replacing the existing vegetation with drought resistant, low fuel volume plants. In addition these areas should also be provided with fire foam equipment, a commercial quality sprinkler system and numerous fire hydrants. The weed abatement program should be performed four times a year.

The DEIR provides no maps illustrating how many fire hydrants exist in this 1290 acre project and their source. It is interesting to note that the City of Whittier along with the Los Angeles County Fire Department are always first to require that new commercial developments have fire hydrants within prescribed distances. However, in this case even though there is a very substantial history and risk of fire, the only new hydrants are near the pads, which will be used full time to pump water into the wells.

The DEIR is also deficient in that it does not provide for an emergency response plan. Again the submission of this emergency response plan is required after the CEQA review. This emergency response plan should be mandated to be included in the DEIR.

The DEIR also fails to mention the highly combustible, high risk eucalyptus trees in the Project area. The City has previously removed hundreds of these eucalyptus trees in a clear cutting manner that left behind a moonscape-like effect. The reason for this clear cutting presumably is that eucalyptus is not indigenous to the area. The silence on this eucalyptus tree issue leaves the community in the unknown on whether it is the intention of the city or Matrix to remove thousands of eucalyptus trees and what if anything would replace them. In addition, how would the unexplained tree removal coincide with the Habitat Authority Resource Management Plan? The DEIR needs to incorporate a map of the current eucalyptus trees and a description of the number of trees to be removed, if any.

The DEIR also fails to provide any information on availability of aerial fire fighters including helicopters and air tankers. The recent September 2010 fire is a stark reminder of the need for these capabilities. There is no description of the agency, the resources available, the distance, the response time, the equipment available or the location of this extremely valuable firefighting component.

Lastly no mention of the spacing of the number of wells is mentioned in this section. Given that there are 60 wells on three proposed sites or approximately 10 wells per acre does this density create an additional risk of fire hazard? One method of mitigation would be to have fewer wells thereby increasing the spacing.

5. Socioeconomics

Proposition A provided that its assessment provided a special benefit to assessed properties. One of those benefits is enhancement of real property values. Proposition A, by implications disallows usse of Proposition A assets in a manner that would eliminate the special benefits approved by Los

Angeles County voters. WHOW contends that any such misuse of Proposition A assets, in this case the 1290 acres of open space, would effect a violation of Proposition 218.

Section H of the DEIR addresses the Socioeconomics costs and impacts of the proposed project. Page H-8 of this section refers to AECOM as the consultant used in obtaining research. The document states:

> The average price per home, using 2009 assessed values using 2009 assessed values for homes within the noise contour is $381,000. The average price per home for homes within the visual shed is approximately $331,000. The total assessed value of homes affected by the potential noise and visual impacts project is approximately $59 million.

This analysis is seriously flawed and grossly understates the economic impact. The consultant used "assessed values" rather than "current market values". A simple Zillow.com research illustrates the value conclusions are a gross misrepresentation.

Attached are three sample Zillow addresses in the "visual shed" of the project and the Zillow valuations. (See attached Exhibits 5-7)

15017 Lodosa Drive	4,426 sq ft /25,000 ft lot	abuts project	$1,070,000
15503 Lodosa Drive	3,159 sq ft/ 12,396 ft lot	direct visual line	$756,000
7904 Ocean View	2,014 sq ft/ 10,400 ft lot	abuts project	$621,500

The DEIR fails to state that many of these homes in the visual shed and noise contour are in the communities of Mar Vista Heights and Friendly Hills – both considered very desirable premium locations. Many of the homes that directly abut the project are custom homes on minimum one- half-acre lots. The range of fair market values in "old Friendly Hills" is $899,000- $1,119,000 as depicted on the "zestimate" range.

Certainly AECOM had access to this data but chose to ignore it to understate the impact. AECOM credibility must be further questioned in that they did not obtain "comparable sales" data from the multiple listing service for the relevant area or well known services such as Comps, DataQuick and Costar. In addition, the report fails to name "local realtors" that were interviewed. It is suggested that AECOM interview Lori Breitman, Marti Jordan or Carla Lowinger all who have intimate professional knowledge of this segment of Mar Vista Heights and Friendly Hills. It is also uncertain what professional credentials AECOM had. A more appropriate evaluation of the deprecation of values would include California licensed appraiser or M.A.I certified.

The Consultant AECOM inserts page H-30 which depicts the "key factors" in home purchase decisions. Based on this 2010 Fannie Mae survey the key factor is the "Safety of Neighborhoods" chosen by 43% of respondents. Clearly a toxic oil field spewing carcinogens, with fire and earthquake risks would not make this Whittier neighborhood desirable as a safe neighborhood.

It is certainly not surprising that AECOM distances itself from the liability associated with these specious valuation with the exculpatory statement on page H-5:

> "Further AECOM has served solely in the capacity of consultant and has not rendered any expert opinions."
>
> "This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations."

The biases of the report are also well documented by the admission that

> "This study is based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and *consultations with the client and the client's representatives."* (Emphasis added).

AECOM further relies on studies from Boxal (2005) showing depreciation of between -4.0% and -8.0% and Davis 0f -3.0% and -7%. Both of these studies were analyzed to include distances of 2.0 to 2.5 miles of the noise and visual shed. (Page H-30) AECOM's damage analysis includes only the immediately impacted areas of approximately 1000 feet. This evidences another flaw. The economic analysis should, at a minimum, consider all the home values within a 2.0 to 2.5 mile range.

The Boxal study is on rural property in **Alberta, Canada**. Peter Boxal is a professor at the University of Alberta in Canada. The title of the study is "The impact of oil and Natural Gas Facilities on **rural** residential properties." The sizes of the properties examined in Canada were 1 acre to 40 acres. This study methodology did look at the impact within 2.5 miles whereas the DEIR only looked at the immediate 1,000 feet radius to homes. The study did find 'The results of this analysis strongly suggest that the presence of oil and gas facilities can have significant negative impacts on the values of neighboring rural residential properties. Other studies they refer to were for airport traffic, cell towers, and high voltage transmission lines.

The report is also deficient in that it states that only 95 homes will be affect by noise and 70 by visual shed. If these homes in the most desirable part of Whittier decline by 10% -30% that impacts the comparable values of all homes in Whittier. Substituting a major oil field operation for a natural preserve negatively impacts the entire Whittier residential real estate market.

Further any comparison to home values in the Honolulu Terrace operation owned by Matrix would be flawed. The residents, including city councilman Bob Henderson receive substantial oil and gas royalties which may have an upward impact on value. No royalties are being paid to the residents abutting the project. Instead the city is allegedly contracted to receive a 30% royalty.

Table 16 of this section quantifies the loss in home values based on assessed values only as it impacts the city of Whittier tax rolls. The report fails to consider the potential legal liability for class action lawsuit based on all unforeseen liabilities from diminution of property value due to carcinogens or water contamination lawsuits or fire from oil field operations. It is almost inevitable that the city will be forced to defend these suits for years to come. Homeowners are entitled to the quiet enjoyment of their property. Once drilling commences,

it is foreseeable that homeowners would band together to litigate "taking" damages caused by noxious intrusions onto real property such as noise, fumes, dust and vibration.

Oilfield litigation precedents are well known in Bolsa Chica, Montebello, Santa Barbara, and Baldwin Hills. Empirical evidence demonstrates that it is common for litigation to last ten to twenty years. The expense and time delays of this litigation to the city could be staggering.

In addition the DEIR fails to consider the very real possibility of a class action lawsuit from the municipal bondholders who purchased over $500 million of Prop A bonds. These tax free municipal bonds preclude entering into business with for-profit enterprises (like drilling for oil with Matrix). Should these bonds lose their tax exempt status the interest damages for each year would be $30 million per year. Clearly any economic evaluation should assess this significant liability and not just look at the rosy speculation of higher oil prices.

Section H of the model also does an economic forecast of the proposed fiscal benefit to the City. Table 17 on page H-64 shows 30 Year Fiscal Benefit based on a low and high price for crude. The analysis is a "30 Year Fiscal Benefit". The analysis is fundamentally flawed in that it is based on the following comment

> "All assumptions regarding future royalty payments made to the City are based on the executed "Oil, Gas and Mineral Lease" between the City and Matrix Oil. "

This blanket assumption made in Section H fail to consider the 1993 "Project Agreement" entered into between the City of Whittier and Los Angeles County for the purchase of the 1290 acres.

The DEIR assumes that the entire 30% royalty would be received by the City. It fails to consider the 1993 Los Angeles County Project Agreement "which states, "Applicant shall *reimburse the District in an amount equal to the greater* of 1) the amount of grant monies provided under this Agreement; 2) the fair market value of the real property; or 3) the *proceeds from the portion of the property acquired, developed, improved, rehabilitated or restored with grant monies*." Based upon the plain reading of this binding Project Agreement the County would be entitled to all the proceeds with none going to the City of Whittier. Section 8.2 of the 2008 Whittier/Matrix lease would permit Matrix to drill while all royalties are paid to the County of Los Angeles. The analysis further fails to consider the value of the 1290 acres, given the inflated royalty and supply projections for uncultivated oil. Whittier would be mistaken in its belief that it only needs to reimburse the district for the value of surface rights, when the mineral rights were also purchased with Proposition A funds.

Public comments made by city council members suggest that whatever proceeds the city may receive, these funds could only be used in the Whittier Parks Department and could not be part of the city's General Fund. While Whittier could redirect the current Parks Department budget to backfill the General Fund, any special benefit to Whittier residents, not contemplated by the Proposition A assessment would likely result in a violation of Proposition 218, "The Right to Vote on Taxes Act."

The "Project Agreement" also prohibits it "enter into any contract for the management or operation the Project or any portion thereof, except with a governmental agency or a

nonprofit corporation that is exempt from federal income taxation pursuant to 501(c) (3) of the Internal Revenue Code." Matrix Oil is not a non-profit corporation.

As previously mentioned there is a significant risk of a class action lawsuit from municipal bond holders. The "Project Agreement states "In order to maintain the exclusion from gross income for federal income tax purposes of the interest on any bonds, notes or other evidences of indebtedness issued for the purpose of providing the grant monies made available in this agreement, Applicant covenants to comply with each applicable requirement of Section 103 and Sections 141 through 150 inclusive of the Internal Revenue Code." The DEIR socioeconomic impact fails to consider this rudimentary element of municipal finance.

It is also worth noting that the socioeconomic benefit neither provides schedules for the full 30 years showing of project income and expenses; nor does it use any financial present value analysis. These are fundamental for any complete and thorough evaluation. Instead the DEIR makes general conclusory statements.

One of Matrix's listed objectives was to "stimulate the local economy by providing opportunities for qualified local businesses to sell goods and services and for qualified workers to apply for jobs." This public-private business relationship will trigger "prevailing wages". The DEIR is silent on prevailing wages.

6. Noise

One of the greatest concerns to residents is noise and vibration resulting from the oil drilling. The proposed drilling is a 24 hour a day operation 7 days a week.

The DEIR states

> If test wells prove to be viable the Central Processing Site would be constructed and drilling would thereafter commence at the three pads sequentially. This drilling would last for an estimated 5 years and during this time, both drilling and processing site noise would occur simultaneously.

The City of Whittier knew that their existing municipal code would not allow this type of noise generating drilling operations and the City would be forced to prosecute the offender as a public nuisance to enforce the code. The simple solution for this was for the City to change the law. On January 12, 2010 the city repealed the existing code sections 8.32.010-8.32.120 and enacted a new Chapter 8.32 which was significantly more lenient.

The DEIR states on 4.5-17 that the new code is "more general in nature and **does not** prescribe specific noise limits." It also states that "Vibration is not mentioned in the current City Municipal Code."

The audacity of the City to blatantly change the rules to fit to their needs modifies the city golden rule from "He who has the gold makes the rules" to "He who has the oil makes the rules."

WHOW requests that the DEIR analyze the noise and vibration effects on the environment using the pre-existing standards that prevailed when the lease was signed. It is not clear that any adequate CEQA analysis was performed for this change. This is yet another

example of piecemealing. The EIR should have been performed prior to the lease being signed. To allow for the city to change the municipal code effectively allows them to change the standard of review for the EIR.

As discussed at a later point in these comments, this changing of the municipal code demonstrates a pre-commitment and direct course of action to project approval by Whittier. It is unconscionable that the city would use this sleight of hand to rig the outcome of noise section of the DEIR.

Mitigation measure in this section that are particularly deceptive are "quiet mode" and "construction hours / construction activities". As previously stated drilling will be round the clock day and night. "Quiet mode" only refers to turning off back up alarms, using radios instead of voice and minimizing deliveries during daylight hours ." The proper mitigation standard would be to not allow drilling from 7:00 pm to 7:00 am. It is the incessant running of the annunciators, compressors, drills, metal on metal clanging, pumps and diesel engines that exceed the Los Angeles County decibel standards. Construction hours are not the same as drilling hours which are 24hours/7daysaweek/365daysayear in multiple locations. The only acceptable mitigation measure is no drilling between the hours of 7:00 p.m. and 7:00 a.m.

Again the DEIR's rush to judgment allows Matrix to develop a comprehensive Noise Reduction Plan at some time in the distant future. The City of Whittier will be the responsible party for accepting and enforcing the plan. One needs little imagination to see how "the wolf will guard the henhouse". This comment letter specifically requests that the Noise Reduction Plan be part of the DEIR and be made available for all to publicly review and comment on it.

Lastly, the DEIR uses the least expensive way to mitigate the noise. Instead of requiring the best class of materials as noise barriers (as listed in Table 4.5-2) the mitigation measure allows for a grossly inferior pads. Given the loud noise the proper mitigation measure would be to use 12 inch thick concrete and not light weight pads.

The entire noise section is fatally flawed.

7. Hydrology and Water Resources

The DEIR includes a grossly deficient and inadequate hydrology and water resource section. The section fails to include two basic essentials, a Storm Water Pollution Prevention Plan and a Hydrology Study including drainage plans. This is completely unacceptable and renders the DEIR incomplete.

Again the DEIR allows Matrix to provide these critical studies at some time in the future after the EIR has been approved and the Conditional Use Permit has been granted and operations have commenced. This piecemeal process attempts to circumvent CEQA's disclosure policy that is at the heart of an EIR.

The teaspoons of information that the DEIR does provide, are frighteningly haunting. Page 4.8-11 describes the horrifying scenario that is:

> "Proposed drilling and operations could result in oil spills as a result of equipment failure or operational errors. Spill volumes at the proposed facility could potentially be significant due to the increased handling of crude oil and the potential for blowouts from the wells. Such a spill could substantially degrade groundwater, surface water and downstream facilities. Although spill containment can be implemented around the drilling sites, *the worst case scenario would involve an oil well blow-out and overflow of containment berms.*
>
> In the unlikely event that a large spill or blow-out at the proposed drilling site flows directly into nearby hillside drainage courses, it could spread the contamination into the Puente Hills Native Habitat Preserve, downstream storm drain facilities and existing residential communities located to the south and west of the Project Site. *Overall, such a spill could have a significant long-term, widespread impact on water quality."*

Yet, the disclaimer fails to either quantify the damages or map the areas exposed by these damages. Surely the effect would be greater than 95 homes in the visual shield. Keep in mind this only addresses the human error and machine failure. The analysis that contamination would affect only residences to the south and west of the project are insulting. The contamination of the water could continue undetected for years before residents would know they were drinking toxic water.

The city of Whittier is very familiar with groundwater contamination. Only last month the Environmental Protection Agency announced the settlement of the large Superfund contamination near the old Skateland and Presbyterian Hospital that has festered since 1976. The cost of the clean-up of the contamination has been estimated at $69 million. The city of Whittier should mandate that Matrix and its partners post a bond for the potential and highly likely water contamination hazards. The current $5,000,000 liability requirement is the equivalent of taking a squirt gun to a war zone.

The DEIR must insert detailed maps with the proposed drilling sites and the potential plumes of contamination to water and its impact on the surrounding residential community. It also needs to provide worst case scenarios explaining *significant long -term widespread impact* on water quality.

It also says that Produced water will be required at 7,200 bpd or 288,000 gallons per day for presumably secondary production of 10,000 bpd of oil using 8 injection wells. In 1998, Chevron used 8,000 bpd to float only 1,500 bpd of oil. (ref Table 2-4 History). The "produced water" estimate is appears too low based on Chevron's actual data.

Where does the "produced water" come from? Does Matrix have permits from the Central Basin for this large quantity of water? What is the ultimate fate of all this water and do they have plans regarding the "Water Independence Now" – WIN Program of the Water Replenishment District which is working hard to control the falling water table in the Central Basin but obviously can't use oil contaminated water.

Most importantly what specific chemicals by name will be used in the "produced water" to enhance oil flow?

8. Pre-commitment Prior to CEQA

The California Environment Quality Act generally requires agencies to complete environmental review before taking a discretionary action to commit to a definite course of action on a project that may cause physical change in the environment. An environmental impact report cannot be a perfunctory task performed to accommodate previous actions.

The City of Whittier pre-committed to the Matrix Oil drilling project before embarking on the preparation of this result-oriented and disingenuous environmental impact report. This is well evidenced by an overhead slide presented to Whittier Friendly Hills homeowners on April 22, 2009. The slide titled "Estimated Time Line" clearly defines this pre-commitment. (See Exhibit 8.)

As the April 2009 slide indicates the EIR was a mere formality and the plan was greenlighted from the inception.

> **Summer 2008** – City council adopts Resolution of Intention to lease Property for Production of Oil
>
> **Late Summer 2008** – City receives bids on lease (bid for royalty amount)
>
> **Fall 2008** - City council awarded lease agreement to highest bidder – Matrix/Clayton Williams
>
> **Spring 2009** – Lessee files application for Conditional Use Permit; identifies facilities and locations requested for exploration and production operations
>
> **Jan 2010** - City initiates CEQ review –NOP goes out
>
> **Fall-Winter 2010** City Council considers Conditional Use Permit for facilities; Lessee obtains other permits as required.
>
> **2011** - Lessee starts exploration phase
>
> **2011/2012** Lessee begins production wells

The actions that the city council embarked on in their determination to reap the financial windfall of oil royalties not only include signing a long- term lease with Matrix before any environmental review; but also contracted with a lobbyist to negotiate the royalty split with the County of Los Angeles. This lobbyist who was to earn approximately $200,000, failed to register as a lobbyist with the County of Los Angeles and violated the County ordinance as well as violating agreements with Whittier and the "Project Agreement."

It should come as no surprise to know that the City Council in their zealousness to grab the gold ring adopted a new noise limit standard in January 2010 prior to the drafting of the EIR. Again this demonstrates the definitive course of action the city would go to approve the project. Had the EIR been performed in 2008 or 2009 the EIR outcomes for noise results

would be significantly different. The change in the noise ordinance is irrefutable evidence of the city is pre-commitment to the project.

The proper course of action would have been for the City to perform the environmental impact report and contact the county prior to seeking a Resolution of Intention to Lease. The city also entered into an illegal lease with an infinite time period. The Whittier Charter calls for a vote of the entire electorate for a lease that exceeds 25 years.

The City of Whittier committed to a "definite course of action" with the Whittier/Matrix mineral exploitation of open space lands and tacitly "approved" the project prior to drafting the DEIR, as can be seen by the slant and biases of the DEIR. The entire CEQA and EIR process has been abused by this Procrustean bed approach well evidenced in the DEIR. As a result this entire DEIR is a sham!

9. Environmental Justice

A. Section 4.16 of the DEIR pretends to addresses issues of environmental justice. This section is blatantly result oriented in the following respects:

1. State law provides mandatory baseline considerations for evaluating disproportionate project impacts on minority and low-income populations;
2. The DEIR neglects to consider the goals and objectives of Proposition A, which are themselves a measure of environmental justice;
3. The DEIR erroneously omits minority and low-income populations that were intended to benefit from Proposition A;
4. The DEIR cleverly, yet arbitrarily limits the study area to the most economically affluent neighborhoods within the City;
5. At lease 50% of the Study Area is located entirely in the unpopulated habitat preserve.

The Whittier Main Oil Field was purchased with Proposition A funding. Proposition A authorized the formation of an assessment district to raise funds for open space purchases throughout the County of Los Angeles. The Whittier Hills were specifically designated as open space to be purchased from Proposition A assessment proceeds.

The purchase of the Whittier Hills itself was intended to redress issues of environmental justice. (See, Cal. Pub. Res. Code, section 5622(c), (d).) A primary goal of the legislature in authorizing the capture of tax dollars for open space purchases was to preserve available open space in highly urbanized areas and specifically, Los Angeles County. According to the authorizing legislation, rapid urban sprawl and population growth has outpaced the state's ability to acquire and maintain parks and open spaces. Legislative findings make it abundantly clear that the acquisition, preservation, and maintenance of open space areas eliminates urban blight, which disproportionately impacts minority and low-income populations. These impacted populations were cut out of the DEIR's consideration.

These findings were made on a countywide basis and were not limited to the geographical boundaries of the City of Whittier, let alone the arbitrarily selected "Study Area" contained in the Environmental Justice analysis section of the DEIR.

Acquisition of the Whittier Hills with Proposition A funds converted those lands to a regional park resource and is, therefore, owned by Whittier in trust for the beneficiaries of the Proposition A tax assessment. The DEIR's environmental justice study erroneously limits consideration of project impacts to the City of Whittier.

B. DEIR 4.16.1 Environmental Setting: Intentional Exclusion of Minority Communities from the Study Area

As a practical matter, the Whittier Hills service those Los Angeles County communities that are closest in proximity to the City of Whittier and which account for approximately 90,000 annual visitors. These communities include unincorporated areas of East Los Angeles County, Montebello, Pico Rivera, South El Monte, El Monte, La Puente, La Habra, Commerce, Norwalk, Santa Fe Springs, unincorporated South Whittier, Bell and Bell Gardens. Each of these communities is predominated by Mexican-American and other Latino-American residents of moderate to low- and very-low income households. With the exception of South Whittier, none of these communities were considered or otherwise included the within the Study Area. Exclusion of these communities from the Study Area is a glaring omission because all of them lay within the Proposition A zone of benefit region. Removal of 1290 acres of parkland from these communities reverses the stated Proposition A objectives, such that the DEIR may only conclude that there will be a significant environmental injustice by destroying the Whittier Hills.

(i) Inclusion of Unpopulated Open Space in the Study Area

Figures 4.16-1 [Distribution of Minorities] and 4.16.2 [Distribution of Poverty in Study Area] are equally deceptive in that approximately 50% of the geographical area depicted on those figures include approximately 4000 acres of undeveloped open space area, including the 1290 acres encumbered by the 2008 Whittier/Matrix lease.

(ii) Exclusion of Drilling In Surrounding Communities

Neglected in the "Environmental Setting" section is the fact that the City of Montebello is currently undergoing efforts to expand oil-drilling activities within its City limits and additional residential development that may virtually eliminate open space in that community. The City of Santa Fe Springs is also impacted by historic oil drilling activities. By failing to consider these activities in the DEIR Whittier's consultant skews the conclusion to a finding that minority and low-income residents will not be disproportionately impacted by the project.

(iii) Exclusion of Proposition A Analysis

A baseline for the Environmental Setting analysis must include the adoption of Proposition A and its authorizing legislation. Acquisition of the subject area with Proposition A funding was intended to fulfill a specific legislative design and purpose. An EIR may not unwind or otherwise nullify preemptive legislative findings. The DEIR must accept the legislative findings as true and incorporate them into the baseline analysis.

The proposed project, which involves the leasing of 1290 acres of open space for mining, drilling, mineral, oil and gas extraction, requires that approximately 90,000 visitors per year be excluded from land that is designated and set aside as open space, for use by county residents.

C. Section 4.16.4 Project Impacts and Mitigation Measures.

Erroneous assumptions give rise to erroneous conclusions regarding project impacts. An environmental justice impact would be considered significant if the potential future development would disproportionately impact minority or low-income populations compared to the corresponding medians for the county where the Project is located.

The acquisition of the Whittier Hills with Proposition A funding was intended to create a regional community resource for county residents. Accordingly, county and, more significantly, Whittier adjacent cities and unincorporated areas must be added into the Study Area; specifically those communities referenced above. Inclusion would increase the number of minorities and low-income residents that were intended to benefit from the Proposition A assessment and acquisition of the 1290 acres currently leased to Matrix Oil Company. Expansion of the Study Area will result in different outcomes, which should be considered to obtain an accurate snapshot of environmental justice impacts.

Removal of 1290 acres of land will have a direct foreseeable negative impact on the environment. In so far as environmental remedies have been created legislatively, removal of these remedies cannot be mitigated to a level that is below significant. Project effects will disproportionately affect minority and low income communities when the intended beneficiaries of the Proposition A assessment are added back into the Study Area because they will be prohibited from using the Proposition A resource.

The FEIR must expand the number of communities that directly benefit from the Whittier Hills. At a minimum, the FEIR should contain a survey of users of the 4000-acre preserve. This survey should include all entries to the open space, as once inside the open space area, users access all areas of the park via fire roads and hiking trails.

The FEIR must consider legislative findings, the purpose and intent of funding legislation that authorized Proposition A, Proposition A and the collective purpose if these laws in establishing the baseline environmental area and the Study Area. Unless the foregoing is accomplished, the FEIR will have inadequately analyzed the Environmental justice component.

Conclusion

The approval of this DEIR puts the city of Whittier on a treacherous slippery slope. The legal precedents this project sets will have serious ramifications for decades to come in the way of unintended consequences. Future developers will look for the same "velvet glove" treatment when processing their conditional use permits. What is an acceptable land use and zone ordinance? How can the city legitimately deny height and noise limitations? Is the new standard being promulgated, as long as you pay the city of Whittier thirty percent of your profits we will rewrite the rules? If another developer comes along with a plan for a non-profit medical marijuana farm on the unused 1290 acres, would it just be a matter of negotiating the city's cut? After all one of the DEIR stated objectives was to "maximize royalty payments to the City of Whittier."

The city of Whittier in its avaricious pursuit of petrol dollars has been reckless in their wanton disregard for existing contracts, rules and laws. Like early wildcatters they have run rough shod over legal obstacles. Specifically:

1) Ignoring Proposition A and its objectives.
2) Ignoring the city charter that mandates a vote of the electorate for any lease over 25 years.
3) Changing the noise requirement in the dead of winter's night to lower the standards to achieve favorable EIR results.
4) Hiring a "consultant" to lobby the Los Angeles County and failing to properly register and then ignoring applicable rules and regulations for lobbyists.
5) Breaching the Prop "A" Project Agreement by failing to submit to the County for prior approval all leases and entering into a lease with a for profit entity.
6) Jeopardizing the tax free municipal bond status of the Prop "A" bonds by contracting with a private for profit corporation.
7) Failing to follow CEQA by performing the EIR before entering into a lease.
8) Processing an incomplete, flawed EIR that does not have a Fire Rescue Plan, Earthquake Geotechnical Plan, Hydrology Study or Storm Water Pollution Plan..
9) Ignoring the written 2007 Puente Hills Authority Resource Management Plan that does not provide for the use of drilling oil.
10) Failing to assess and recuse council members for apparent conflicts of interest.
11) Trampling over private property holders right to the quiet enjoyment of their homes and disregarding the intentional depreciation of their property value.

In addition, in a complete lack of transparency the city failed to televise the public EIR comment meetings, and cancelled normally scheduled city council meetings in November and December. The city also ignored the voices of over 4,000 petitioners Whittier and surrounding communities against the proposed project. Not in the history of Whittier have so many came forward to oppose a project.

It is time to stop this ill-conceived plan that has between 6 and 15 acknowledged unavoidable environmental impacts and countless questionable conclusions affecting remaining conclusions. WHOW demands that Whittier abort the entire EIR process that has divided city residents and fostered distrust in the current council's decision-making ability. As Councilman Greg Norbak presciently was quoted back on December 29, 1996 "Preservation of hillside land had a real healing effect in our community...It took away the adversity between the groups that wanted to develop the hills and the groups that wanted to save the hills. Finally preserving the land took that knife that had been wedged into our community out of the picture." Send the oil carpetbaggers back to Santa Barbara and Texas.

Regards,

_____

Daniel Duran, President of WHOW

Sound Reduction Technology

Modern facilities all over the United States employ sound wall and sound-paneling to reduce noise that emanates from machinery on-site. The Matrix project will have facilities that have the following:

Sound-walls built to 15 feet high that surround each site;

Sound panels placed on engines and machinery that generate high levels of noise;

Vertical and portable sound walls that can be moved to position around temporary equipment;

Sound-panels attached to some parts of drill and service rigs that will muffle sound from pipe and engines.

There are many technologies available today to combat sound from industrial sites. We will be working with local firms to achieve the goal of zero-impact to the surrounding neighborhoods and Habitat ecology. Please see the link to learn more about technologies we will be using at this project.

Horizontal Well Technology

Many advances have been made in oil field technology in the last 20 years. One of the impressive advances is in drilling technology that allows for the drilling of long-reach wells up to 10 miles away from a central point. Typically distances away from a central point or pad range from one to three miles. This allows many wells to be drilled from one point and thus minimize impact to the surrounding areas.

* Our project proposes to drill up to 60 wells to fully develop the City Lease. This will be done with up to 3 sites. Due to modern engineering to include better drill equipment the time it takes to drill wells has been dramatically reduced from historic standards of wells drilled in the 1950s to 1970s. All of the proposed Matrix wells will be high-angle and long-reach wells. Please see the attached link to learn more about high-angle drill technology.

Environment, Health and Safety

There are no shortcuts when it comes to safety. Matrix is dedicated to maintaining the highest standards of safety and environmental safeguards in its operations.

Matrix works closely and collaboratively with all City, County and State agencies or departments to ensure compliance with regulations and to optimize operations that will minimize impact to properties that surround our leases.

We have developed close working relationships with all relevant local and State agencies:

LA County Fire Department to clear brush in the Sycamore Canyon of the Puente Hills Habitat

City of Whittier Public Works Department for annual / semi-annual production site inspections to ensure compliance with all permitted activity

The Gas Company on data relative to gas pipeline product quality to verify compliance with consumer standards

South Coast Air Quality Management District on emission quality controls

LA County Sanitation District for water disposal standards

State of California Division of Oil, Gas and Geothermal Resources on inspections to maintain required standards of site quality and operations impact.

Matrix is dedicated to improving its sites and the environment around its sites. Matrix invested more than $4 million to rectify the impacts caused by an independent contractor accident that resulted in a one-day fire inside the well cellar at the Honolulu Terrace site.

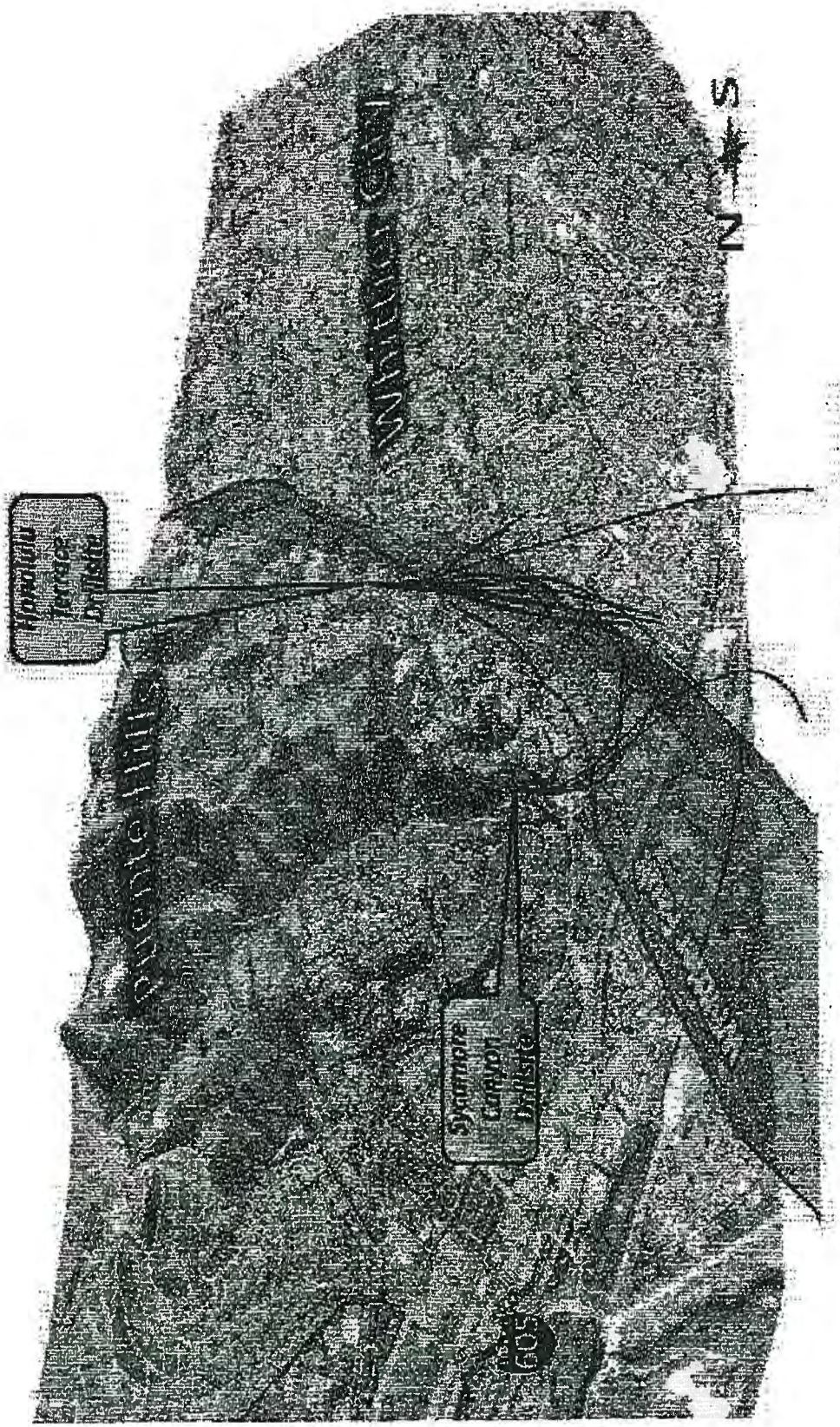
We collaborated with our neighbors and City of Whittier officials to implement advanced safety standards of our operation, rebuilt all key systems, and re-landscaped the area with approved native plants. Procedures have been implemented company wide to prevent another vendor accident and projects to improve the sites as implemented in 2005 continue to this day.

Since 2006 Matrix has been working with the California Department of Fish and Game Department, the US Army Corps of Engineers, the LA Regional Water Quality Control Board and the Puente Hills Landfill Native Habitat Preservation Authority to design and permit a project along the Sycamore Canyon creek within the Habitat area. The goal is to control vegetation along the creek, remove non-native plants, remove debris in the creek to improve creek flow, replace an old creek crossing that has become clogged and is severely impacting stream water quality, and halt creek erosion.

EXHIBIT #1

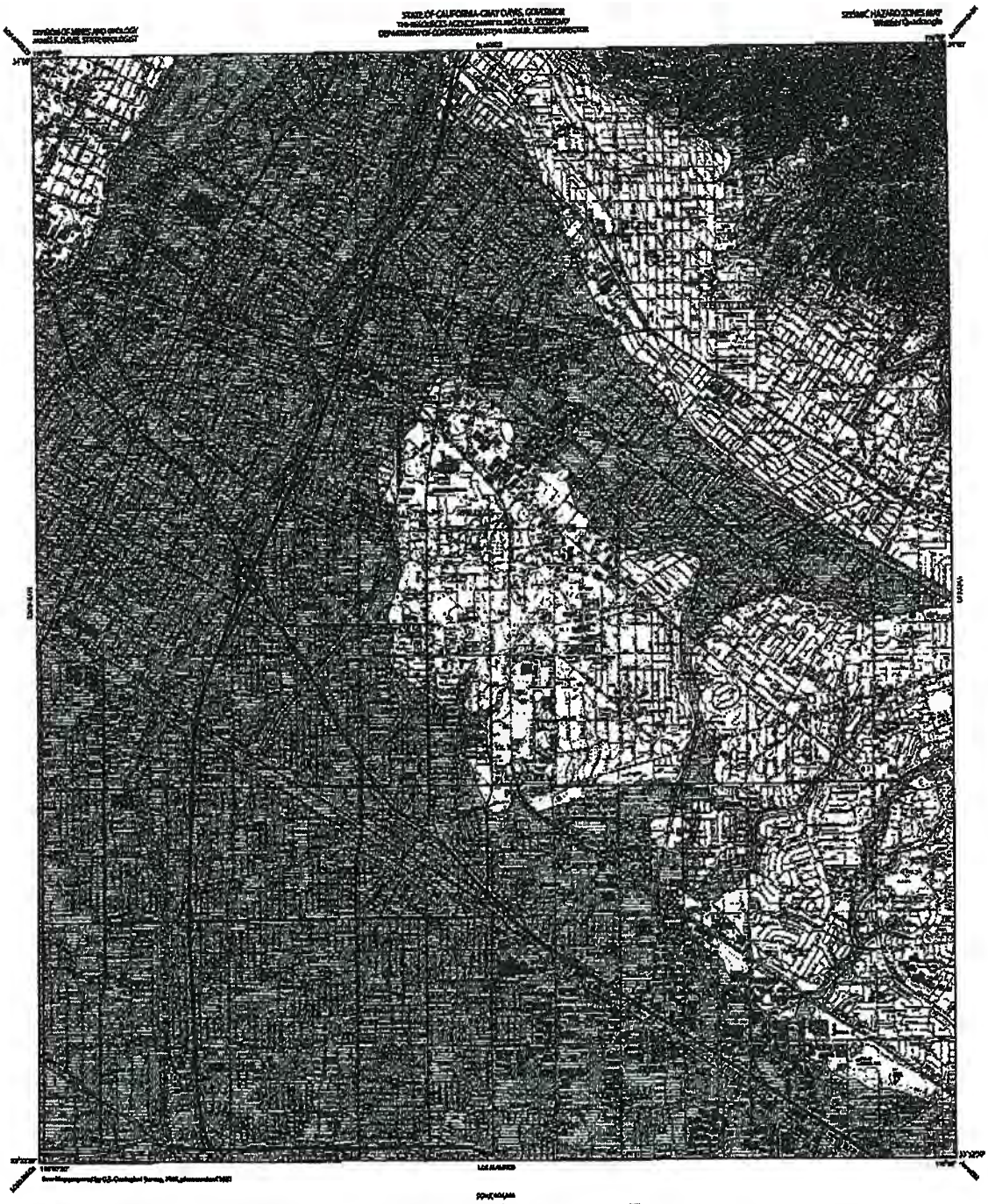
Original Wells: More than 500, are Shown in Green

EXHIBIT #2



Directionally Drilled Wells are Shown in Red

EXHIBIT #3



STATE OF CALIFORNIA
SEISMIC HAZARD ZONES

WHITTIER QUADRANGLE

OFFICIAL MAP

Released: March 25, 1999

EXHIBIT #11

Map | US California Whittier

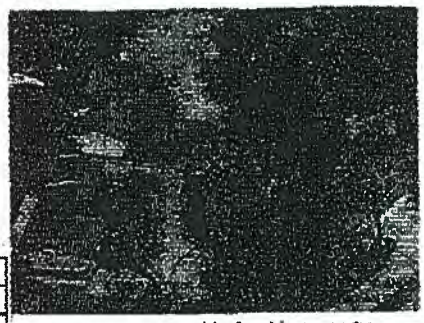
Views: 83

Shop current mortgage rates on Zillow Mortgage Marketplace.

15017 Lodosa Dr

Zestimate®: **$1,070,500**
Value Range: $899K – $1.19M

Monthly payment:
See current rates on Zill **$5,776**
Check your 2010 Credit Score



No photos available for this property

Bedrooms:	3
Bathrooms:	6
Sqft:	4,426
Lot size:	25,000 sq ft / 0.57 acres
Property type:	Single Family
Year built:	1964
Parking type:	--
Cooling system:	Central
Heating system:	
Fireplace:	--
Last sold:	March 28 1997

More facts

Description

This 4426 square foot single family home has 3 bedrooms and 6.0 bathrooms. It is located at 15017 Lodosa Dr Whittier, California. The nearest schools are Ocean View Elementary School, East Whittier Middle School and La Serna High School.

Post for sale/rent Save Share Email me Edit Print

Charts and Data

	Value	Range	30-day change	$/sqft	Last updated
Zestimate®	$1,070,500	$899K – $1.19M	-$41,000	$241	11/27/2010
My estimate	Create estimate				
Owner Comment	Post a comment				

Show

- Zestimate ($)
- Zestimate (% change)
- Listing price
- Tax assessment
- Tax paid
- Page views

Time period

- 1 month
- 1 year
- 5 years
- 10 years

Compare 90605 to nearby areas

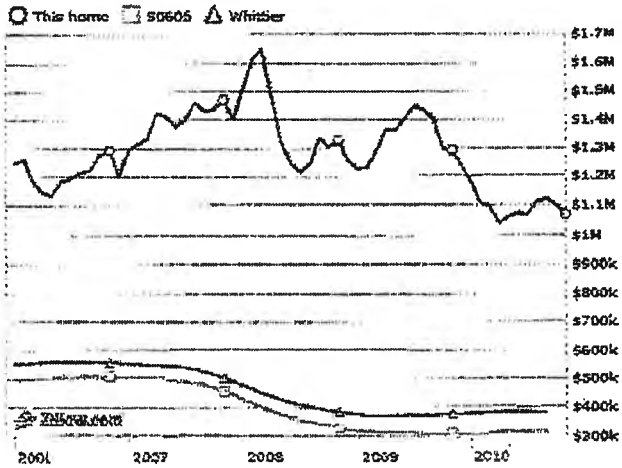


EXHIBIT #5

Map : US California Whittier

Views: 32

See how much you could save by shopping on Zillow Mortgage Marketplace.

15503 Lodosa Dr

Zestimate®: **$756,000**
Value Range: $650K – $839K

Monthly payment:
See current rates on Zillow **$4,079**
Check your 2010 Credit Score

Bedrooms:	4
Bathrooms:	3
Sqft:	3,159
Lot size:	12,396 sq ft / 0.28 acres
Property type:	Single Family
Year built:	1969
Parking type:	—
Cooling system:	Central
Heating system:	
Fireplace:	—

More facts

No photos available for this property

Description
This 3159 square foot single family home has 4 bedrooms and 3.0 bathrooms. It is located at 15503 Lodosa Dr Whittier, California. The nearest schools are Murphy Ranch Elementary School, East Whittier Middle School and La Serna High School.

Post for sale/rent Save Share E-mail me Edit Print

Charts and Data

	Value	Range	30-day change	$/sqft	Last updated
Zestimate®	$756,000	$650K – $839K	-$29,500	$239	11/27/2010
My estimate	Create estimate				
Owner Comment	Post a comment				

Show
- Zestimate ($)
- Zestimate (% change)
- Listing price
- Tax assessment
- Tax paid
- Page views

Time period
- 1 month
- 1 year
- 5 years
- 10 years

Compare 90605 to nearby areas

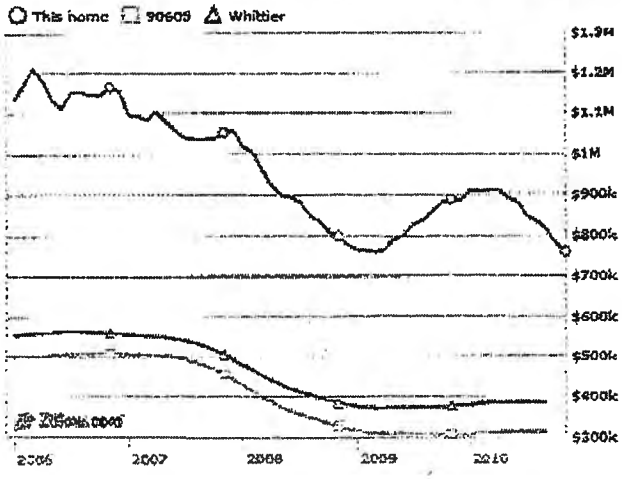


EXHIBIT #6

Map | US | California | Whittier

Views: 66

Don't get your mortgage without checking Zillow first...it could cost you not to

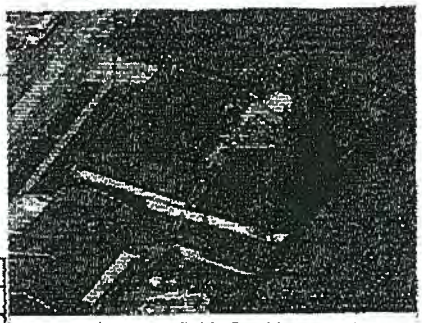
7904 Ocean View Ave

Zestimate®: **$621,500**
Value Range: $516K - $684K

Monthly payment:
See current rates on Zillow **$2,496**
Check your 2010 Credit Score

Bedrooms:	4
Bathrooms:	3
Sqft:	2,014
Lot size:	10,400 sq ft / 0.24 acres
Property type:	Single Family
Year built:	1960
Parking type:	—
Cooling system:	—
Heating system:	
Fireplace:	—
Last sold:	May 09 1980

More facts



No photos available for this property

Description

This 2014 square foot single family home has 4 bedrooms and 3.0 bathrooms. It is located at 7904 Ocean View Ave Whittier, California. The nearest schools are Ocean View Elementary School, East Whittier Middle School and La Serna High School.

Post for sale/rent | Save | Share | Email me | Edit | Print

Charts and Data

	Value	Range	30-day change	$/sqft	Last updated
Zestimate®	$621,500	$516K - $684K	-$6,000	$308	11/27/2010
My estimate	Create estimate				
Owner Comment	Post a comment				

Show
- Zestimate ($)
- Zestimate (% change)
- Listing price
- Tax assessment
- Tax paid
- Page views

Time period
- 1 month
- 1 year
- 5 years
- 10 years

Compare 90602 to nearby areas

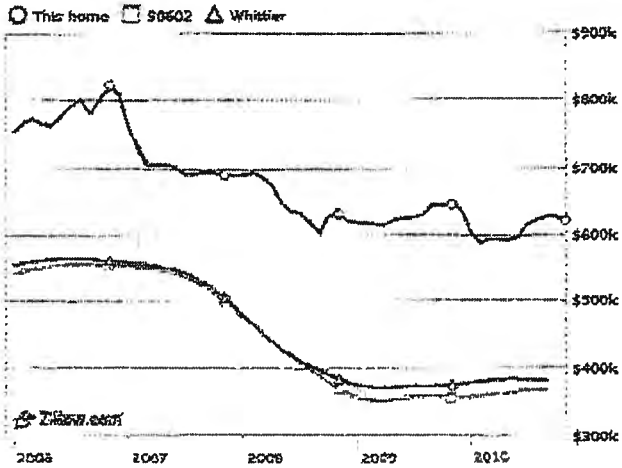


EXHIBIT # 7

Mineral Extraction in the Whittier Hills

Friendly Hills Property Owners Association - April 22, 2009

Exhibit 8a

Estimated Time Line

- **Summer 2008** – City Council adopts Resolution of Intention to Lease Property for Production of Oil
- **Late Summer 2008** – City receives bids on lease (bid for royalty amount)
- **Fall 2008** – City Council awarded lease agreement to highest bidder – Matrix/Clayton Williams
- **Spring 2009** – Lessee files application for Conditional Use Permit; identifies facilities and locations requested for exploration and production operations

- **Jan 2010** – City initiates CEQA review - NOP goes out
- **Fall-Winter 2010** – City Council considers Conditional Use Permit for facilities; Lessee obtains other permits as required
- **2011** – Lessee starts exploration phase
- **2011/12** – Lessee begins production wells

EXHIBIT # 8

EXHIBIT 2

Uniform California Earthquake Rupture Forecast (UCERF)

This research was supported by:

A New Forecast of California Earthquakes

The 2007 Working Group on California Earthquake Probabilities (WGCEP 2007), a multi-disciplinary collaboration of scientists and engineers, has released the Uniform California Earthquake Rupture Forecast (UCERF)—the first comprehensive framework for comparing earthquake likelihoods throughout all of California. It provides important new information for improving seismic safety engineering, revising building codes, setting insurance rates, and helping communities prepare for inevitable future earthquakes.

In developing the UCERF, the 2007 Working Group revised earlier forecasts for Southern California (WGCEP 1995) and the San Francisco Bay Area (WGCEP 2003) by incorporating new data on active faults and an improved scientific understanding of how faults rupture to produce large earthquakes. It extended the forecast across the entire state using a uniform methodology, allowing for the first time meaningful comparisons of earthquake probabilities in urbanized areas such as Los Angeles and San Francisco Bay Area, as well as comparisons among the large faults in different parts of the state.

The study was organized by the Southern California Earthquake Center, the U.S. Geological Survey, and the California Geological Survey, and it received major support from the California Earthquake Authority, which is responsible for setting earthquake insurance rates statewide. During the three-year study, advice and comment was sought from the broader community of earthquake scientists and engineers through open meetings and workshops. Where experts disagreed on aspects of the forecast, alternative options were accounted for in calculations to reflect these uncertainties. The final forecast is a sophisticated integration of scientific data and expert opinion.

UCERF News

- Press Conference
- Press Release
- Media Contacts

Documents and Resources

- UCERF Fact Sheet
- Executive Summary (764 KB PDF)
- UCERF Report
- Images & KML Files
- UCERF Podcast
- Hayward Fault Fact Sheet

UCERF Earthquake Probabilities

According to the new forecast, California has a 99.7% chance of having a magnitude 6.7 or larger earthquake during the next 30 years (see Figure 1). The likelihood of an even more powerful quake of magnitude 7.5 or greater in the next 30 years is 46%. Such a quake is more likely to occur in the southern half of the state (37% chance in 30 years) than in the northern half (15% chance in 30 years) (see Figure 2).

Figure 1

The probability of a magnitude 6.7 or larger earthquake over the next 30 years striking the greater Los Angeles area is 67%,

and in the San Francisco Bay Area it is 63%, similar to previous WGCEP estimates (see Figure 3). For the entire California region, the fault with the highest probability of generating at least one magnitude 6.7 quake or larger is the southern San Andreas (59% in the next 30 years; see Figure 4). For northern California, the most likely source of such earthquakes is the Hayward-Rodgers Creek Fault (31% in the next 30 years). Events of this size can be deadly, as shown by the 1989 Loma Prieta earthquake (magnitude 6.9) and 1994 Northridge earthquake (magnitude 6.7).

Earthquake probabilities for many parts of the state are similar to those in previous studies, but the new probabilities calculated for the Elsinore and San Jacinto Faults in southern California are about half those previously determined. For the far northwestern part of the State, a major source of earthquakes is the offshore 750-mile-long Cascadia Subduction Zone, the southern part of which extends about 150 miles into California. For the next 30 years there is a 10% probability of a magnitude 8 to 9 quake somewhere along that zone. Such quakes occur about once every 500 years on average.

The UCERF model includes the concept that earthquake likelihoods change with time. A fault that has ruptured in a recent large earthquake is less likely to produce another quake in the near future, because tectonic stress has not had time to build back up. Likewise, a fault that last ruptured a long time ago is more likely to produce an earthquake, because the stress on the fault has had time to re-accumulate. The faults with elevated probabilities for an earthquake include the southern San Andreas and Hayward-Rodgers Creek Faults (see Figure 5), although major quakes on these faults may still be decades away.

Figure 5

Earthquake Forecasting, Hazard, and Risk

Californians know that their state is subject to frequent—and sometimes very destructive—earthquakes. Accurate forecasts of the likelihood of earthquakes can help people prepare for these inevitable events. Because scientists cannot yet make precise predictions of the date, time, and place of future quakes, forecasts must be in the form of the probabilities of quakes of certain sizes occurring during specified periods of time.

In daily living, people are used to making decisions based on probabilities—from the flip of a coin (50% probability of heads) to weather forecasts (such as a 30% chance of rain) to the annual chance of being killed by lightning (about 0.0003%). In comparison, the probability of a magnitude 7.5 or greater earthquake striking somewhere in California is about 2% per year.

Earthquake probabilities derived by scientists can help people plan and prepare for future quakes. When an earthquake occurs, two things happen. The first is a fault rupture—a crack in the Earth's crust—gives way and slips under tectonic stress. The second is the radiation of seismic waves caused by this sudden fault motion, which spread out like ripples from a pebble tossed into a pond. The ground shaking that occurs as these seismic waves pass by causes most of the damage. The strength of the waves at a particular site depends on the earthquake's magnitude, which measures the size of the fault rupture, the distance of the site from the rupture, and the local geological conditions at the site.

The UCERF study has determined the probabilities that different parts of California will experience earthquake ruptures of various magnitudes ("earthquake rupture forecast") but not the likelihood of shaking that will be caused by these quakes ("seismic hazard"). This is an important distinction, because even areas with a low probability of fault rupture can experience shaking and damage from distant, powerful quakes.

The U.S. Geological Survey is incorporating the UCERF into its official estimate of California's seismic hazard, which in turn will be used to update building codes. Other subsequent studies will add information on the vulnerability of manmade structures to estimate expected losses, which is called "seismic risk." In these ways, UCERF will help to increase public safety and community resilience to earthquake hazards.

The results of the UCERF study serve as a reminder that all Californians live in earthquake country and should therefore be prepared (see *Putting Down Roots in Earthquake Country*). Although earthquakes cannot be prevented, the damage they do

can be greatly reduced through prudent planning and preparedness. The ongoing work of the Southern California Earthquake Center, U.S. Geological Survey, California Geological Survey, and other scientists in evaluating earthquake probabilities is part of the National Earthquake Hazard Reduction Program's efforts to safeguard lives and property from the future quakes that are certain to strike in California and elsewhere in the United States.

Additional Links:

Working Group on California Earthquake Probabilities

USGS Earthquake Program

National & Regional Seismic Hazard Maps

National Earthquake Hazard Reduction Program

Southern California Earthquake Data Center

"Dare to Prepare" Earthquake Preparedness Campaign

Putting Down Roots in Earthquake Country

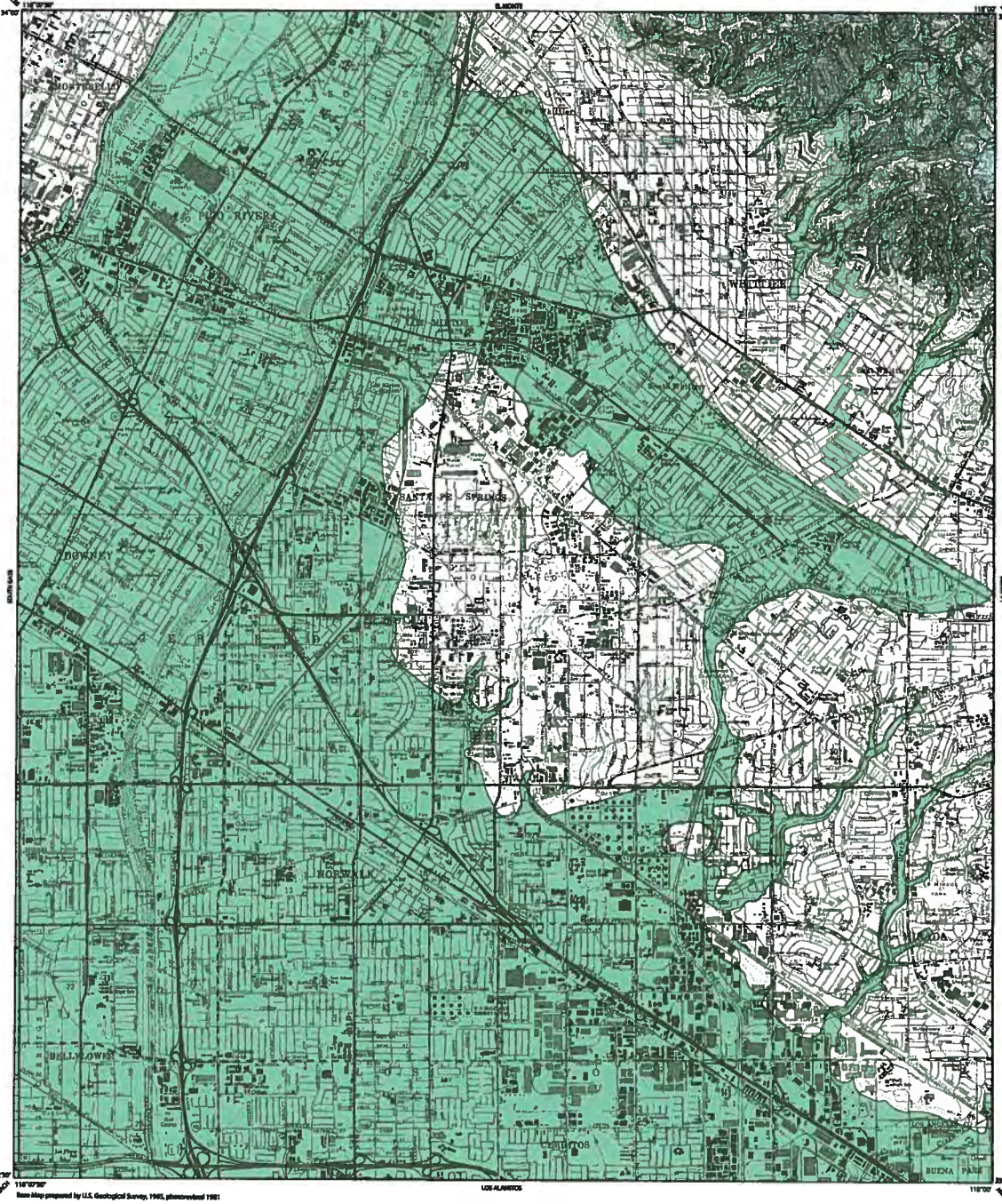
Created in the SCEC CORE system Last modified: April 15 2008 10:01 © 2011 SCEC Southern California Earthquake Center @ USC
Privacy Policy and Accessibility Policy

EXHIBIT 3

DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

STATE OF CALIFORNIA-GRAY DAVIS, GOVERNOR
THE RESOURCES AGENCY-MARY D. NICHOLS, SECRETARY
DEPARTMENT OF CONSERVATION-STEVE ARTHUR, ACTING DIRECTOR

SEISMIC HAZARD ZONES MAP
Whittier Quadrangle



Base Map prepared by U.S. Geological Survey, 1965, photorevised 1981

PURPOSE OF MAP

This map will assist cities and counties in fulfilling their responsibilities for protecting the public safety from the effects of earthquake-triggered ground failure as required by the Seismic Hazards Mapping Act (Public Resources Code Sections 2690-2699.6).

For information regarding the scope and recommended methods to be used in conducting the required site investigations, see DMG Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

For a general description of the Seismic Hazards Mapping Program, the Seismic Hazards Mapping Act and regulations, and related information, please refer to the draft User's Guide (see http://www.consrv.ca.gov/dmg/shezp/shezpgui6/).

Production of this map was funded by the Federal Emergency Management Agency's Hazard Mitigation Program and the Department of Conservation in cooperation with the Governor's Office of Emergency Services.

IMPORTANT - PLEASE NOTE

1) This map may not show all areas that have the potential for liquefaction, landsliding, strong earthquake ground shaking or other earthquake and geologic hazards. Also, a single earthquake capable of causing liquefaction or triggering landslide failure will not uniformly affect the entire area zoned.

2) Liquefaction zones may also contain areas susceptible to the effects of earthquake-induced landslides. This situation typically arises at or near the toe of existing landslides, downslope from rockfall or debris flow source areas, or adjacent to steep stream banks.

3) This map does not show Alquist-Priolo earthquake fault zones, if any, that may exist in this area. Please refer to the latest official map of earthquake fault zones for disclosure and other actions that are required by the Alquist-Priolo Earthquake Fault Zoning Act. For more information on this subject and an index to available maps, see DMG Special Publication 42.

4) Landslide zones on this map were determined, in part, by adapting methods first developed by the U.S. Geological Survey (USGS). A new generation of landslide hazard maps being prepared by the USGS (Minor and Hoe, in preparation) uses an experimental approach designed to explore new methods to assess earthquake-induced landslide hazards. Although aspects of the new methodology may be incorporated in future seismic hazard zone maps, the experimental USGS maps should not be used as substitutes for these official earthquake-induced landslide zone maps.

5) U.S. Geological Survey base map standards provide that 90 percent of cultural features be located within 40 feet (horizontal accuracy) at the scale of this map. The identification and location of liquefaction and earthquake-induced landslide zones are based on available data. However, the quality of data used is varied. The zone boundaries depicted have been drawn as accurately as possible at this scale.

6) Information on this map is not sufficient to serve as a substitute for the geologic and geotechnical site investigations required under Chapters 7.5 and 7.8 of Division 2 of the Public Resources Code.

7) DISCLAIMER: The State of California and the Department of Conservation make no representations or warranties regarding the accuracy of the data from which these maps were derived. Neither the State nor the Department shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

SCALE 1:24,000

STATE OF CALIFORNIA
SEISMIC HAZARD ZONES

Delineated in compliance with
Chapter 7.8, Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)

WHITTIER QUADRANGLE

OFFICIAL MAP

Released: March 25, 1999

STATE GEOLOGIST

MAP EXPLANATION

Zones of Required Investigation:

Liquefaction
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

DATA AND METHODOLOGY USED TO DEVELOP THIS MAP ARE PRESENTED IN THE FOLLOWING:

Seismic Hazard Evaluation of the Whittier 7.5 minute quadrangle, Los Angeles and Orange Counties, California California Division of Mines and Geology, Open-File Report 99-26

For additional information on seismic hazards in this map area, the criteria used for zoning, and additional references consulted, refer to DMG's World Wide Web site (http://www.consrv.ca.gov/dmg/).

Copyright © 1999 by the California Department of Conservation, Division of Mines and Geology. All rights reserved.

EXHIBIT 4

Appendix L

EQFAULT SUMMARY

DETERMINISTIC SITE PARAMETERS

Page 1

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi (km)	ESTIMATED MAX. EARTHQUAKE EVENT MAXIMUM EARTHQUAKE MAG. (Mw)	PEAK SITE ACCEL. g	EST. SITE INTENSITY MOD.MERC.
WHITTIER	2.1(3.3)	6.8	0.486	X
ELYSIAN PARK THRUST	7.3(11.7)	6.7	0.392	X
SAN JOSE	9.0(14.5)	6.5	0.257	IX
COMPTON THRUST	10.9(17.5)	6.8	0.291	IX
RAYMOND	13.0(21.0)	6.5	0.174	VIII
CHINO-CENTRAL AVE. (Elsinore)	14.3(23.0)	6.7	0.180	VIII
VERDUGO	14.8(23.8)	6.7	0.173	VIII
NEWPORT-INGLEWOOD (L.A.Basin)	14.9(24.0)	6.9	0.165	VIII
SIERRA MADRE	15.0(24.2)	7.0	0.208	VIII
CLAMSHELL-SAWPIT	16.0(25.8)	6.5	0.137	VIII
HOLLYWOOD	17.0(27.4)	6.4	0.118	VII
CUCAMONGA	19.7(31.7)	7.0	0.154	VIII
PALOS VERDES	21.4(34.5)	7.1	0.126	VIII
ELSINORE-GLEN IVY	22.7(36.6)	6.8	0.094	VII
SANTA MONICA	24.7(39.8)	6.6	0.087	VII
NEWPORT-INGLEWOOD (Offshore)	26.8(43.1)	6.9	0.083	VII
SIERRA MADRE (San Fernando)	28.5(45.8)	6.7	0.079	VII
SAN GABRIEL	28.8(46.3)	7.0	0.082	VII
MALIBU COAST	30.5(49.1)	6.7	0.072	VI
NORTHRIDGE (E. Oak Ridge)	31.2(50.2)	6.9	0.093	VII
SAN ANDREAS - 1857 Rupture	33.4(53.8)	7.8	0.124	VII
SAN ANDREAS - Mojave	33.4(53.8)	7.1	0.073	VII
SAN JACINTO-SAN BERNARDINO	34.4(55.3)	6.7	0.052	VI
SAN ANDREAS - Southern	36.0(58.0)	7.4	0.084	VII
SAN ANDREAS - San Bernardino	36.0(58.0)	7.3	0.078	VII
SANTA SUSANA	38.1(61.3)	6.6	0.050	VI
CLEGHORN	39.1(62.9)	6.5	0.037	V
ANACAPA-DUME	40.2(64.7)	7.3	0.081	VII
HOLSER	43.2(69.5)	6.5	0.039	V
ELSINORE-TEMECULA	44.1(70.9)	6.8	0.041	V
SAN JACINTO-SAN JACINTO VALLEY	44.3(71.3)	6.9	0.044	VI
NORTH FRONTAL FAULT ZONE (West)	48.5(78.0)	7.0	0.051	VI
CORONADO BANK	48.7(78.4)	7.4	0.058	VI
OAK RIDGE (Onshore)	49.5(79.7)	6.9	0.045	VI
SIMI-SANTA ROSA	51.0(82.0)	6.7	0.037	V
SAN CAYETANO	54.9(88.4)	6.8	0.037	V
SAN ANDREAS - Carrizo	58.1(93.5)	7.2	0.039	V
SAN JACINTO-ANZA	64.5(103.8)	7.2	0.034	V
SANTA YNEZ (East)	66.1(106.4)	7.0	0.028	V
HELENDALE - S. LOCKHARDT	66.7(107.4)	7.1	0.030	V

Plate F2

DETERMINISTIC SITE PARAMETERS

Page 2

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi (km)	ESTIMATED MAX. EARTHQUAKE EVENT		
		MAXIMUM EARTHQUAKE MAG. (Mw)	PEAK SITE ACCEL. g	EST. SITE INTENSITY MOD.MERC.
ROSE CANYON	67.0(107.8)	6.9	0.026	V
ELSINORE-JULIAN	70.2(113.0)	7.1	0.028	V
VENTURA - PITAS POINT	70.3(113.1)	6.8	0.027	V
OAK RIDGE(Blind Thrust Offshore)	70.3(113.2)	6.9	0.033	V
NORTH FRONTAL FAULT ZONE (East)	71.2(114.6)	6.7	0.024	V
CHANNEL IS. THRUST (Eastern)	72.2(116.2)	7.4	0.047	VI
PINTO MOUNTAIN	73.9(118.9)	7.0	0.024	V
MONTALVO-OAK RIDGE TREND	75.3(121.2)	6.6	0.023	IV
M.RIDGE-ARROYO PARIDA-SANTA ANA	75.7(121.8)	6.7	0.022	IV
GARLOCK (West)	75.8(122.0)	7.1	0.026	V
PLEITO THRUST	78.2(125.8)	7.2	0.032	V
RED MOUNTAIN	79.9(128.6)	6.8	0.022	IV
LENWOOD-LOCKHART-OLD WOMAN SPRGS	80.8(130.0)	7.3	0.028	V
BIG PINE	82.1(132.2)	6.7	0.017	IV
JOHNSON VALLEY (Northern)	85.2(137.1)	6.7	0.016	IV
SANTA CRUZ ISLAND	86.4(139.1)	6.8	0.020	IV
GRAVEL HILLS - HARPER LAKE	87.3(140.5)	6.9	0.018	IV
LANDERS	87.3(140.5)	7.3	0.025	V
SAN ANDREAS - Coachella	88.2(141.9)	7.1	0.021	IV
WHITE WOLF	89.2(143.5)	7.2	0.027	V
GARLOCK (East)	90.9(146.3)	7.3	0.024	IV
BURNT MTN.	92.1(148.3)	6.4	0.011	III
BLACKWATER	92.3(148.6)	6.9	0.017	IV
EMERSON So. - COPPER MTN.	92.7(149.2)	6.9	0.017	IV
SAN JACINTO-COYOTE CREEK	93.0(149.6)	6.8	0.015	IV
EUREKA PEAK	93.1(149.8)	6.4	0.011	III
CALICO - HIDALGO	94.0(151.3)	7.1	0.019	IV
EARTHQUAKE VALLEY	98.2(158.0)	6.5	0.011	III
NORTH CHANNEL SLOPE	99.6 (160.3)	7.1	0.021	IV
SANTA YNEZ (West)	99.8 (160.6)	6.9	0.015	IV

-END OF SEARCH- 70 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.

THE WHITTIER FAULT IS CLOSEST TO THE SITE.
IT IS ABOUT 2.1 MILES (3.3 km) AWAY.

LARGEST MAXIMUM-EARTHQUAKE SITE ACCELERATION: 0.4861 g

Plate F2 (cont)

EXHIBIT 5

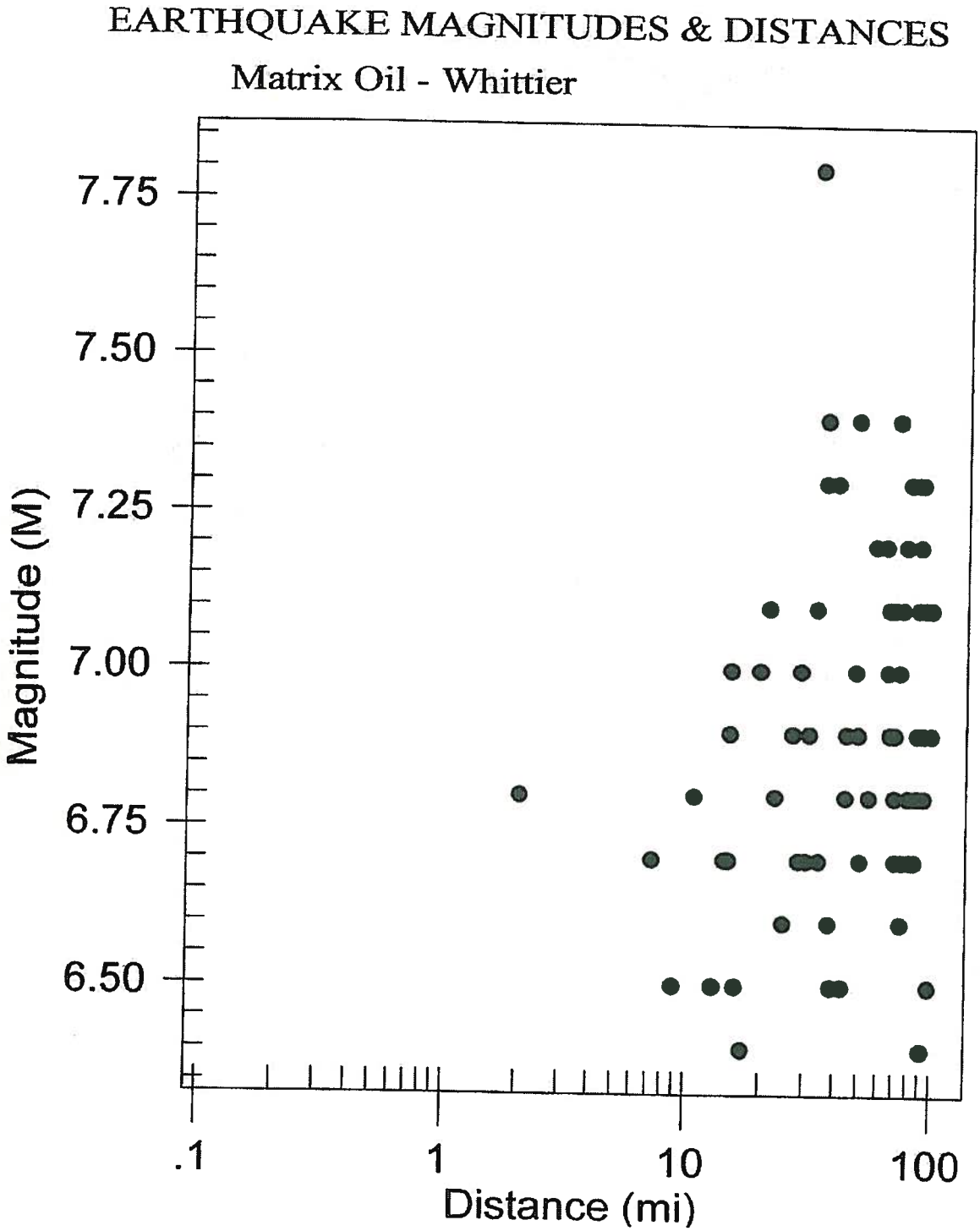

EARTHQUAKE MAGNITUDES & DISTANCES
Matrix Oil - Whittier
Magnitude (M)
7.75
7.50
7.25
7.00
6.75
6.50
.1
1
10
100
Distance (mi)

Plate 54

EXHIBIT 6

Science News
San Andreas fault said 'ready to go'

Published: Oct. 8, 2010 at 5:49 PM

LOS ANGELES, Oct. 8 (UPI) -- A section of the San Andreas Fault in California is overdue for a major earthquake that could reach 8.1 magnitude, researchers say.

If or when it happens, seismologists say, the earthquake could run 340 miles from Monterey in central California south to the Salton Sea, the Los Angeles Times reported.

Experts previously believed a major section of the fault 100 miles northwest of Los Angeles would remain dormant for at least another century.

But new studies suggest even that section of the fault is overdue for the "Big One," seismologist Lucy Jones said.

"All of it has plenty enough stress for it to be ready to go," Jones said. "The biggest implication of [the report] is that it increases the likelihood that when we do have a big earthquake, it will grow into the 'wall-to-wall' rupture."

The "walls" are the boundaries of the southern San Andreas, which begin at the Salton Sea and end in the town of Parkfield in Monterey County.

Seismologists generally consider the southern San Andreas Fault as a single segment because it all behaves the same -- it rarely rumbles, but when awakened, the shaking can be devastating.

The San Andreas has long been considered one of the most dangerous faults in Southern California because of its length.

Not only do longer faults produce bigger quakes, they emit a type of shaking energy that can travel longer distances.

"So a much larger area is affected by a really large earthquake," Jones said.

© 2010 United Press International, Inc. All Rights Reserved. Any reproduction, republication, redistribution and/or modification of any UPI content is expressly prohibited without UPI's prior written consent.

Read more: http://www.upi.com/Science_News/2010/10/08/San-Andreas-fault-said-ready-to-go/UPI-61701286574566/#ixzz1SfdHCubq

EXHIBIT 7

Bulletin of the Seismological Society of America, Vol. 101, No. 3, pp. 964–974, June 2011, doi: 10.1785/0120100216

Ⓔ

Evidence for Vertical Partitioning of Strike-Slip and Compressional Tectonics from Seismicity, Focal Mechanisms, and Stress Drops in the East Los Angeles Basin Area, California

by Wenzheng Yang and Egill Hauksson

Abstract We have synthesized the characteristics of the seismogenic zone in the east Los Angeles basin by analyzing earthquake data recorded during the past 30 years (1981–2010). The seismicity is distributed along the Whittier fault, with the majority of earthquakes located adjacent to the south side, in the depth range from 0 to 9 km, with b value of 1.1 ± 0.05 and mostly normal and strike-slip faulting. Within the depth range of 9–12 km, the seismicity is scattered uniformly across the region, the b value is 1.0 ± 0.05, and all three faulting styles are present. At the deepest depths (12–18 km), seismicity is sparse and primarily limited to a few clusters striking north; these deeper earthquakes primarily have reverse fault motion, and the b value is 0.78 ± 0.04. Inversion of high-quality focal-mechanism data for the orientation of the regional stress field showed that the direction of maximum compressional stress rotates from N12°W at shallow depth to due north at the bottom of the seismogenic zone. Similarly, a depth dependence is observed in stress drops calculated from P-wave source spectra, which indicate stress drop generally increases from ~7 MPa at shallow depth (3 km) to ~53 MPa at the base of the seismogenic zone (17 km). Overall, our results provide new evidence for the vertical partitioning of styles of deformation and state of stress within this complex fault system in the east Los Angeles basin.

Online Material: Stress drop fits to source spectra.

Introduction

Long-term regional seismicity is associated with ongoing tectonic movement in the seismogenic zone. From the analysis of earthquake source parameters and seismicity, we infer important physical features of the regional tectonic process and thereby improve our understanding of regional seismic hazards. Individual earthquake source properties, such as focal mechanisms and stress drops, are calculated from seismograms. From analyzing groups of earthquakes, we can infer temporal and spatial variations of earthquake source properties and thereby the evolution of the regional stress field. The long record of background seismicity in the Los Angeles area provides one of the best *in situ* information sources about the ongoing tectonic deformation.

The east Los Angeles (ELA) basin (Fig. 1) is a transition zone between the convergent tectonics of the Transverse Ranges and the right-lateral strike-slip tectonics of the Peninsular Ranges (e.g., Hauksson, 1990). In the ELA basin, the Whittier fault is the longest mapped fault, with a surface trace along the whole length (around 40 km), striking to the northwest. Over the past 30 years, two moderate-size earthquakes occurred inside the ELA basin close to the Whittier fault: the 1 October 1987 Whittier Narrows M_L 5.9 and the 29 July 2008 Chino Hills M_w 5.4 earthquakes (e.g., Hauksson *et al.*, 1988, 2008; Hauksson and Jones, 1989). The focal mechanisms exhibited reverse faulting for the Whittier Narrows mainshock and oblique faulting for the Chino Hills mainshock. A seismic reflection survey confirmed the existence of the Puente Hills blind-thrust fault system (Shaw and Shearer, 1999) to the south of the Whittier fault. One of the nodal planes in the Whittier Narrows mainshock focal mechanism was aligned with this blind thrust. To provide a detailed tectonic model of the region, we synthesize how the Whittier fault and the blind-thrust faults accommodate shortening across the region.

In this study, using earthquake data in the ELA basin over a period of the past 30 years, we systematically synthesized seismicity, focal mechanisms, stress-field orientation, and stress drops and inferred the regional seismotectonic characteristics.

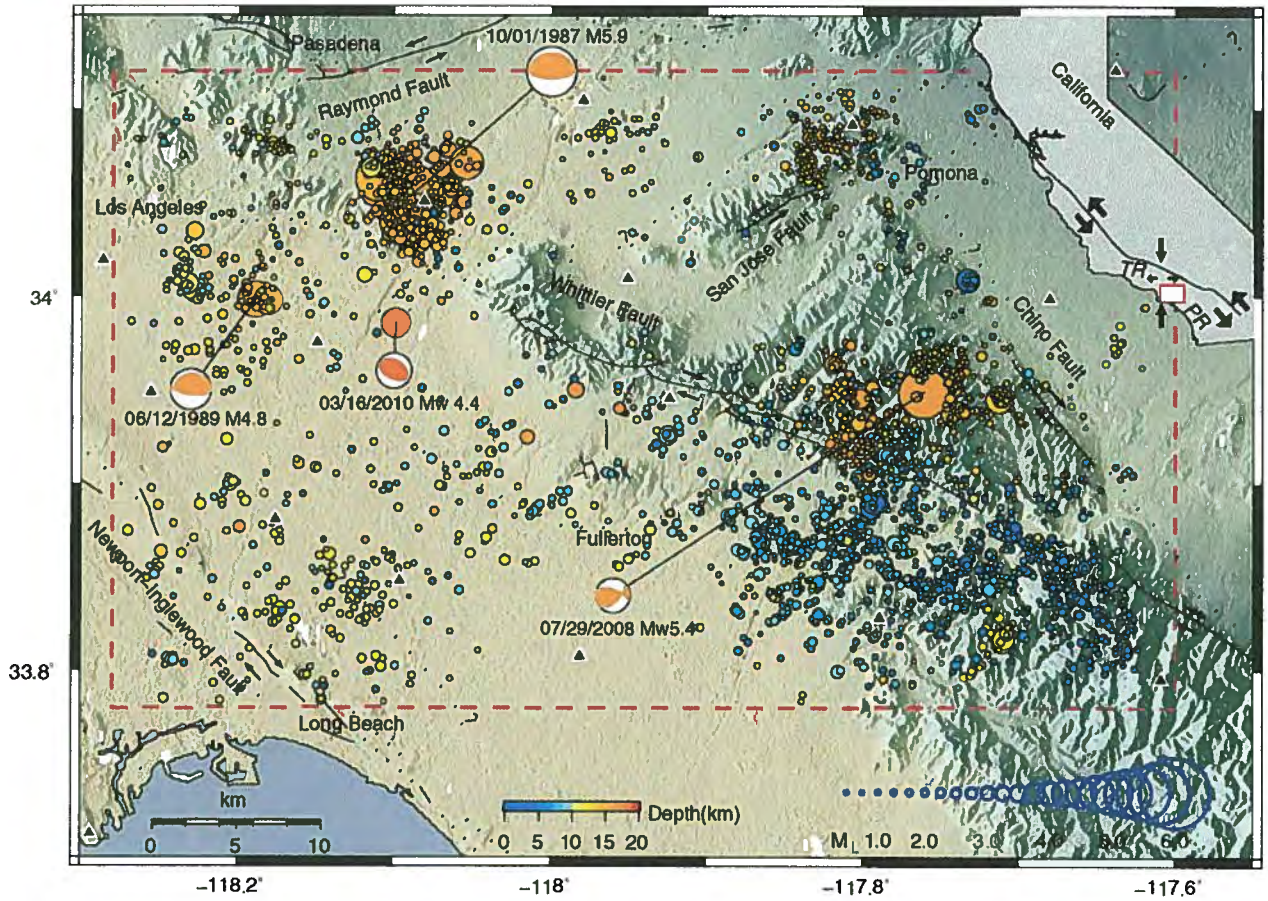


Figure 1. A data set of 3457 hypoDD relocated earthquakes (colored with depth and scaled with magnitude, with legends at the bottom) in the east Los Angeles (ELA) basin area (red dashed box) from 1 January 1981 to 16 March 2010. The 1987 Whittier Narrows M_L 5.9 earthquake, 1989 Montebello M_L 4.8, 2008 Chino Hills M_w 5.4 earthquake, and the 2010 Pico Rivera M_w 4.4 earthquake are marked with focal mechanisms. Seismic stations are shown as triangles. The surface traces of major faults are in black, with fault motion marked by arrows. The insert (top right) shows the location of the ELA basin area (red rectangle) inside the state of California, in which the San Andreas fault (black curve) separates the North American plate and the Pacific plate, with relative plate motions marked with arrows. The Transverse Ranges (TR) are marked with north–south thrust and east–west escape tectonics, and the Peninsular Ranges (PR) are marked with strike-slip motion.

Data

We selected a rectangular area (118.276° W to 117.604° W; 33.784° N to 34.116° N) (dashed red box in Fig. 1), as the ELA basin study area, where the seismicity is well recorded by the Southern California Seismic Network (SCSN; Hutton *et al.*, 2010). From 1 January 1981 to 16 March 2010, 3828 events with magnitudes between 0.0 and 5.9 were recorded by the SCSN inside the study area. The past 30 years of seismicity include the 1987 M_L 5.9 Whittier Narrows and the 2008 M_w 5.4 Chino Hills earthquake sequences, as well as background earthquakes in the vicinity of the Whittier fault.

Methods

We relocated the seismicity using a three-dimensional (3D) velocity model determined with SIMULPS (Thurber, 1993; Hauksson, 2000). We derived differential travel times from the picks provided by the SCSN and applied hypoDD (Waldhauser and Ellsworth, 2000) to refine the hypocenters. We obtained 3457 relocated hypocenters (90% of the number of original events), with average relative location errors of less than 100 m.

We calculated focal mechanism for the relocated earthquakes using the HASH method (Hardebeck and Shearer, 2002, 2003), which uses polarities of P-wave first motions and S/P amplitude ratios. For the P-wave first motions, we used the event phase picks and corrected for reversed polarities. To calculate S/P amplitude ratios, we analyzed 100-samples/second waveforms recorded at stations with broadband three-component (HHE/HHN/HHZ) seismometers. We converted the waveforms from velocity to displacement and band-pass filtered them in the frequency range of 1–10 Hz, which is consistent with other studies

(e.g. Shearer, 1997). For each component, we calculated the absolute maximum amplitude in the first 2-s phase window for the P and S waves and in a 2-s waveform window ahead of the P arrival for background noise. For each station, the pre-event noise and the P-wave and S-wave amplitudes were calculated as the vector summations of amplitudes from all three components. Only records with a P-to-noise ratio above 3.0 were used in the focal mechanism calculation.

There are several methods for inverting focal mechanisms data to calculate the regional stress field (e.g., Angelier, 1984; Michael, 1984; Gephart and Forsyth, 1984; Hardebeck and Michael, 2006). In this study, we inverted for the principal stresses using the spatial and temporal stress inversion (SATSI) method (Hardebeck and Michael, 2006). The SATSI method is a damped grid-search inversion for stress tensor orientation. The damping helps to decrease the artificial noise or isolated data singularities associated with stress-field orientation inversion (Hardebeck and Michael, 2006).

Earthquake stress drop is the change in static stress from before to after the occurrence of an earthquake and is estimated from seismic waveforms. To calculate stress drops, we used vertical component (EHZ or HHZ) seismograms. We required that each event be recorded by at least three stations. We computed stress drop using displacement waveform (i.e., converted from velocity) and unified the sampling rates to be 100 Hz. We calculated the spectra using a multitaper method (Thomson 1982; Park *et al.* 1987), with four taper windows. The waveform inside a −0.28 to 1.00-s window relative to the P arrival is selected for the spectrum calculation. We also calculated a noise spectrum using a waveform snippet just prior to the P arrival, which has the same duration of −0.28–1.00 s. We required the spectra signal-to-noise ratio to be larger than 3.0 in a 2.35 to 30-Hz frequency bandwidth. For each event and its 100 neighbors, we separated seismic source, station, and travel-time spectra from observed spectra using the method developed by Shearer *et al.* (2006). The detailed procedures were also documented in Yang *et al.* (2009). For each group of 100 spectra, we stacked the $\log_{10}$ separated source spectra in each consecutive 0.2 amplitude bin and required the minimum number of spectra in each bin to be at least three. We fit the stacked source spectra in a 5 to 30-Hz frequency bandwidth with a Brune-type source model (Brune, 1970; Madariaga, 1976):

$$u(f) = \frac{\Omega_0}{1 + (f/f_c)^n} \tag{1}$$

and

$$f_c = \frac{0.42\beta}{(M_0/\Delta\sigma)^{1/3}}, \tag{2}$$

where $n = 2$. Ω_0 is the source spectrum amplitude at low frequency. β is the shear-wave velocity and changes with depth according to a seismic velocity model, SOCAL, which is a general 1D velocity model for the southern California region (Shearer, 1997). Moments were calculated from calibrated magnitudes with the following equation (Kanamori, 1977):

$$\log_{10} M_0 = 1.5M + 9.1. \tag{3}$$

From source spectra fitting, we removed the common empirical Green's function, which is the stack of all the differences between each source spectrum and theoretical spectrum pair) and obtained the best-fitting stress drop in a wide range, 0.01–100 MPa. Ⓔ We present two examples of the fitting of stress drops with high and low best-fitting stress drops in Figure S1 (available as an electronic supplement to this paper).

Results

In order to analyze the depth variation in the seismicity patterns, we subdivided the relocated seismicity into six consecutive 3-km depth interval ranges from 0 to 18 km (Fig. 2). In the shallow depth ranges (0–3, 3–6, and 6–9 km), the spatial distribution of seismicity extends along the Whittier fault, with the majority of events located south of the fault. In the depth range from 9 to 12 km, the distribution of earthquakes becomes more spatially homogeneous across the whole ELA basin. In the deepest depth ranges (12–15 and 15–18 km), earthquakes tend to concentrate into a few clusters that are predominantly north of the fault. To ensure that our results are not biased by location method, we compared our relocated catalog with the LSH v.1.12 catalog (Lin *et al.* 2007) for the ELA basin area. The differences in map location are less than 500 m, and differences in depth are somewhat larger; for example, the location of the Whittier Narrow mainshock and its large aftershocks are in the 15–18 km depth range in our catalog, and they were in the 12–15 km depth range in the LSH catalog. This could be caused by different velocity models or different sets of phase picks being used in the two different approaches. We prefer the deeper depths because they are more consistent with previous studies (Hauksson *et al.*, 1988, 2008).

To analyze how the properties of the seismicity change with depth, we determined depth profiles of the magnitude distribution, the b value, and the probability densities of three faulting styles. The magnitude-versus-depth profile in Figure 3a shows that seven out of eight earthquakes with magnitudes larger than M 4.5 occurred at focal depths below 14 km. We calculated b values for events in every 2-km depth interval from 0 to 20 km (Fig. 3b). To ensure that there are enough samples in each depth bin, we required a minimum number of 30 events in each bin. To account for the catalog completeness, we applied a magnitude cutoff of 1.8 for the b-value calculation, which is the level of completeness. The b value was estimated using the maximum likelihood method (Aki, 1965). The standard error of the b value was calculated using the equations derived by Shi and Bolt (1982), which were formulated based on the density distribution of the b value. In general, we found that there is an inverse relationship between b value and the earthquake depth, from 1.3 at shallow depth to 0.6 at the bottom of the seismogenic zone and with an outlier at around 5 km.

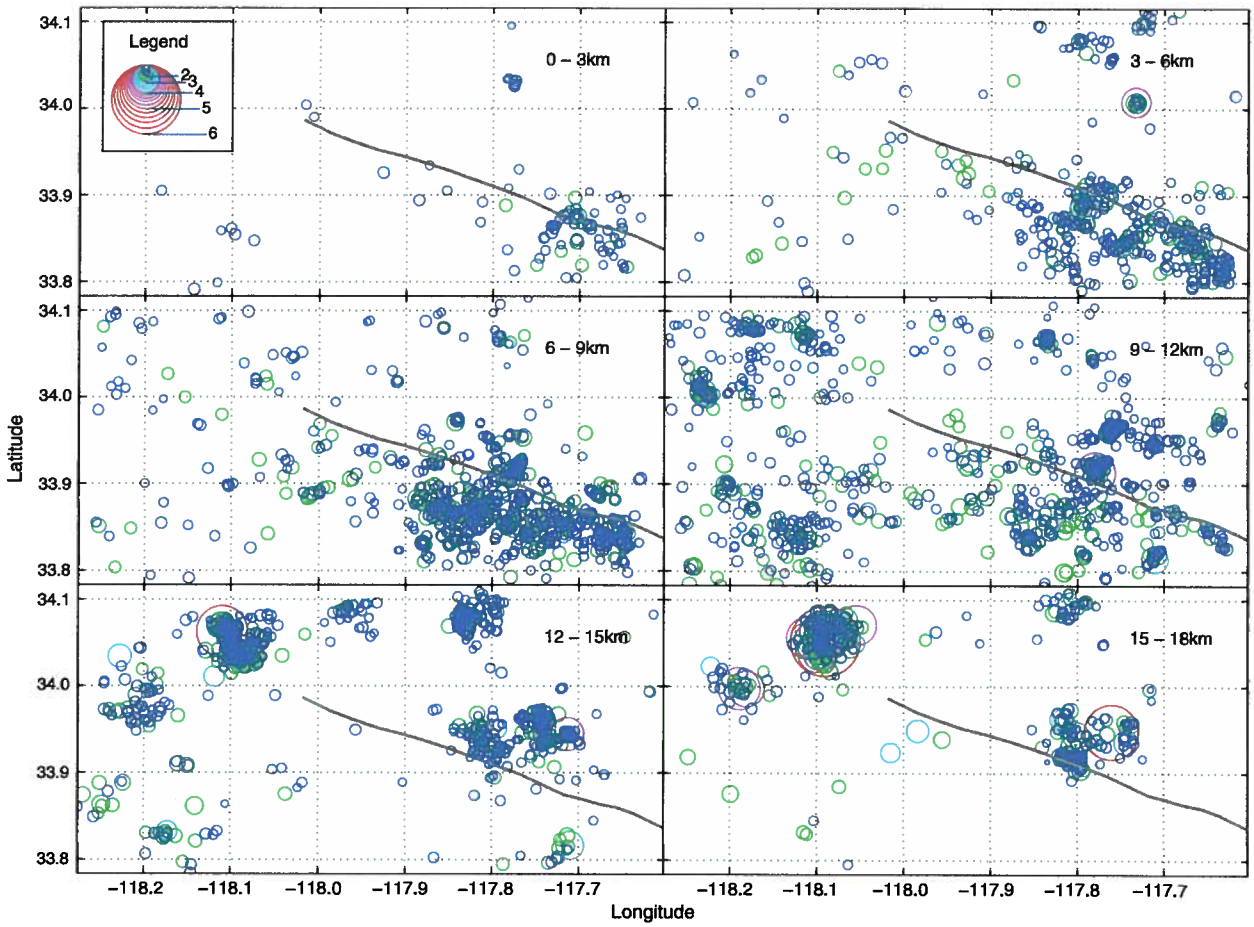


Figure 2. Seismicity patterns of relocated earthquakes in the ELA basin area in each consecutive 3-km depth interval from 0 to 18 km. Depth intervals are indicated at the upper right corner in each panel. As indicated in the legend (top left), earthquake markers are sized and colored by magnitude (smallest circles in blue, $0 \leq M < 2$; smaller circles in green, $2 \leq M < 3$; circles in cyan, $3 \leq M < 4$; large circles in purple, $4 \leq M < 5$; largest circles in red, $M \geq 5$). The dark curve in each panel marks the surface trace of the Whittier fault.

We determined 2178 focal mechanisms from a data set of 3457 relocated earthquakes. We classified them as strike-slip, reverse, and normal faulting, based on rake angle with a simple 90° separation rule: Events with rake angles in the −45° to −135° range are normal faulting; in the 45° to 135° range are reverse faulting; and with any other rake angles are strike-slip faulting. Among the 2178 events, 66.1% of them are strike-slip faulting, 25.2% of them are reverse faulting, and 8.7% of them are normal faulting. To determine the variation in faulting with depth, we normalized the numbers of events of each fault type and plotted the three faulting styles as probability density functions (Fig. 3c). At the shallowest depths (0–6 km), normal faulting has the highest probability density, followed by strike-slip and reverse faulting styles. In the middle depth interval (6–12 km), the probability density of strike-slip is the highest, and normal faulting is the lowest. In the deepest depth interval (12–20 km), the reverse faulting has the highest probability density, followed by strike-slip and normal faulting.

We inverted for the 3D stress-field orientation to resolve both spatial and temporal variations. For spatial variations, we divided the mapped area into 5 × 5 km squares and the depth range into three consecutive 6 km interval bins from 0 to 18 km (Fig. 4a–c). We required a minimum of 10 earthquakes in each cube to be included in our inversion. For temporal variations, we inverted the data in three consecutive decades from 1981 to 2010 and employed the same criteria as used for the spatial domain inversion except for no depth separation (Fig. 5a–c). We selected a damping parameter of 1.2, which is approximately the corner of the trade-off curve between model length and data variance. The orientation distribution of the principal stresses inverted from each cube is plotted on the lower hemisphere stereonet (insert at lower left corner inside each panel in Fig. 4 and Fig. 5). The regional trend of the maximum compressional stress (σ_1) systematically changes from north-northwest to north with increasing depth, accompanied by decreasing plunge values.

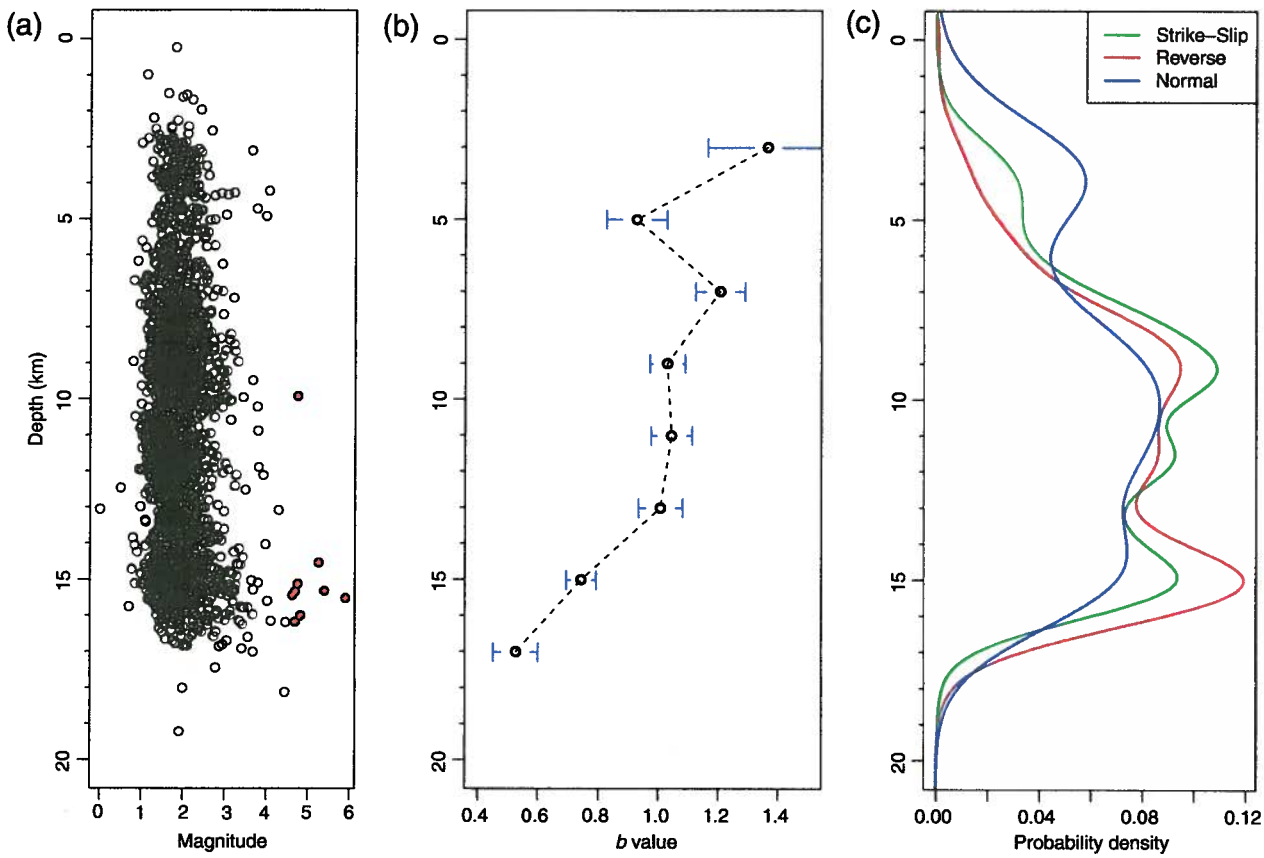


Figure 3. (a) The depth variation of earthquake magnitude, (b) b-value, and (c) probability densities of three faulting types. In (a), events with magnitude above 4.5 are colored red.

Compared with spatial variation, the temporal variation of stress-field orientation was smaller. The trend of the σ_1 was nearly north during the 1980s (1122 out of the total 3457 events that occurred in 1981–1990), changed slightly to a north-northwest direction in the 1990s (1140 out of the total 3457 events that occurred in 1991–2000), and continued in the north-northwest direction in the 2000s (1195 out of the total 3457 events that occurred in 2001–2010).

We determined stress drops for 1489 earthquakes using spectral fitting procedures of Yang *et al.* (2009). To exclude artifacts, we limited the acceptable stress drops to be within 0.01–90 MPa. Approximately 7% of the events could not be fitted with source spectra, and their best-fitting stress drops fell outside the acceptable range. The spatial distribution of stress drops is shown in Figure 6a, with the calculated stress drops smoothed in each 4.5 × 4.5 km square. In Figure 6b, we show the stress-drop distribution along a latitude-depth profile. In Figure 6c, we selected data within 10 km distance of the AB line (green line in Fig. 6a), which is drawn along the Whittier fault, extending northwest to include the hypocenter of the 1987 Whittier Narrows earthquake. We projected the selected data along the AB line in depth and smoothed the $\log_{10}$ stress drops in each 4.5 × 4.5 km square (Fig. 6c). Both depth profiles (Fig. 6b,c) show that stress drop generally increases with depth. The 1D shear-wave velocity model that we used in our calculations is shown in Figure 6d.

In Figure 7a, we have summarized the depth variations in the orientation of the maximum principal stress (σ_1). We have calculated the angle between each available σ_1 and north and represented the trend of σ_1 in each 6-km depth range, with positive values on the x-axis referring to the east. The mean angle and the corresponding error bars were determined at the average depth of each depth interval (dots in Fig. 7a). The trend of σ_1 rotates from N11.7 ± 9.5° W at shallow depth (0–6 km) to N3.0 ± 12.7° W at the intermediate depth (6–12 km) and to a N0.98 ± 8.1° W at the bottom depth of the seismogenic zone (12–18 km). In Figure 7b, we summarized the temporal variation of the orientation of the σ_1. The mean angle and error bars were placed at the middle year in each decade. The trend of σ_1 rotates from N1.3± 6.8° W in 1981–1990, to N7.4 ± 9.1° W in 1991–2000, and to N6.9 ± 8.2° W in 2001–2010.

The stress drop increases with depth, as shown in Figure 7c. We grouped the data into three depth ranges (0–6, 6–12, and 12–18 km) and calculated the median depths and median $\log_{10}$ stress drops (red squares in Fig. 7c) for

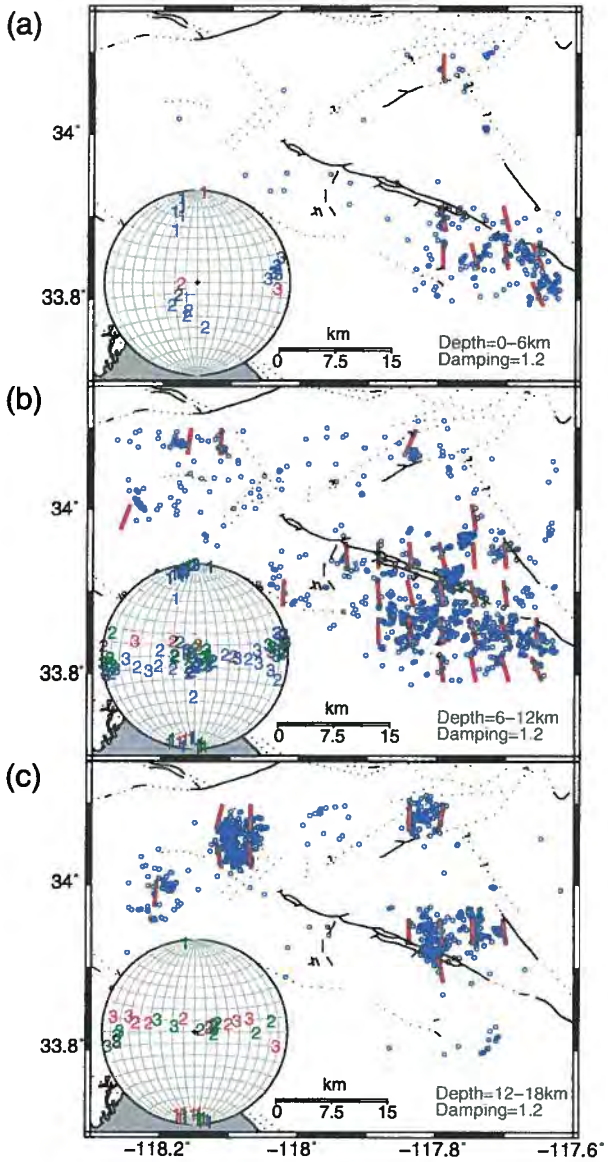


Figure 4. Spatial variation of maximum horizontal stress direction in each consecutive 6 km depth interval from 0 to 18 km in the ELA basin area. The blue dots are the available events with focal mechanism solutions. The depth range and damping parameter are marked at the lower right corner in each panel. The stereonet at the lower left corner in each panel shows the spatial distribution of inverted principal stresses: σ_1, σ_2, and σ_3, which are marked by corresponding stress indexes and colored by latitude (blue, latitude < 33.9°; green, 33.9° ≤ latitude < 34°; red, latitude ≥ 34°).

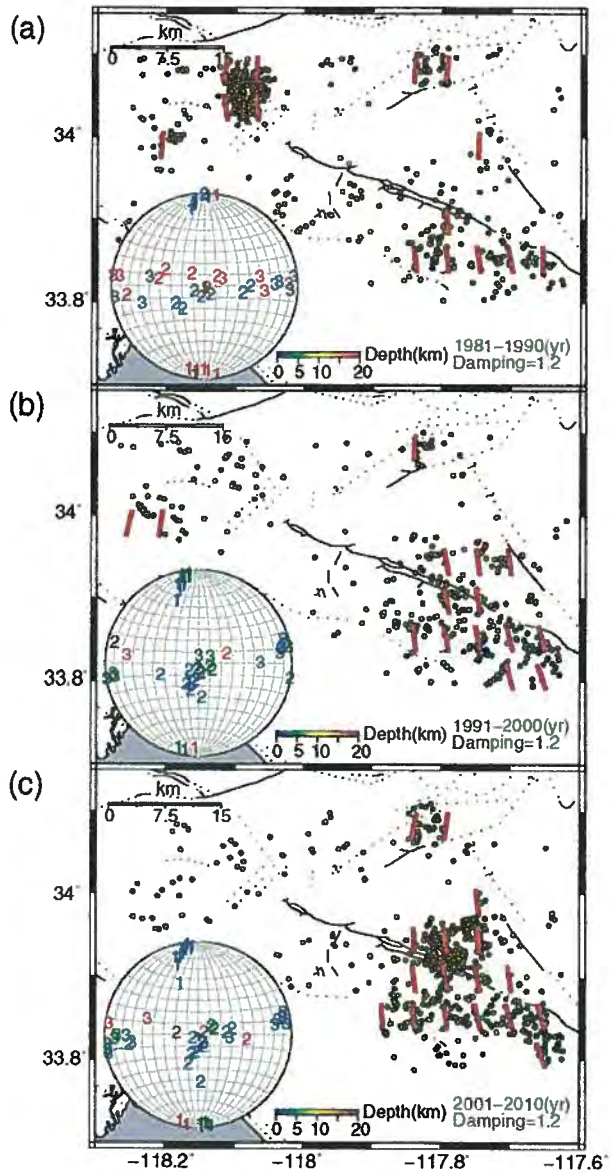


Figure 5. Temporal variations of maximum horizontal stress direction in each consecutive decade from 1981 to 2010. The dots show events in the same decade with focal mechanisms available and are color scaled by depth. The temporal range and damping parameter are marked at the lower right corner in each panel. The stereonet shares the same description as in Figure 4.

each subset. We fit a straight line to these median points and determined the following empirical stress drop (MPa) and depth (km) relationship from least-square fitting:

$$\log_{10} \Delta\sigma = 0.62 + 0.065H. \quad (4)$$

Equation 4 shows that the stress drop increases with depth from around 7 MPa at 3 km to 53 MPa at 17 km depth in the ELA basin area, and the data (gray dots in Fig. 7c) scatters ±0.5 along the trend in $\log_{10}$ stress-drop scale.

Discussion

The results of the inversion of groups of focal mechanisms confirm that the direction of the stress field inside the ELA changes with depth. The approximate 11° angular difference of the maximum compressional stress trends in the shallow and deep parts of the seismogenic zone is associated

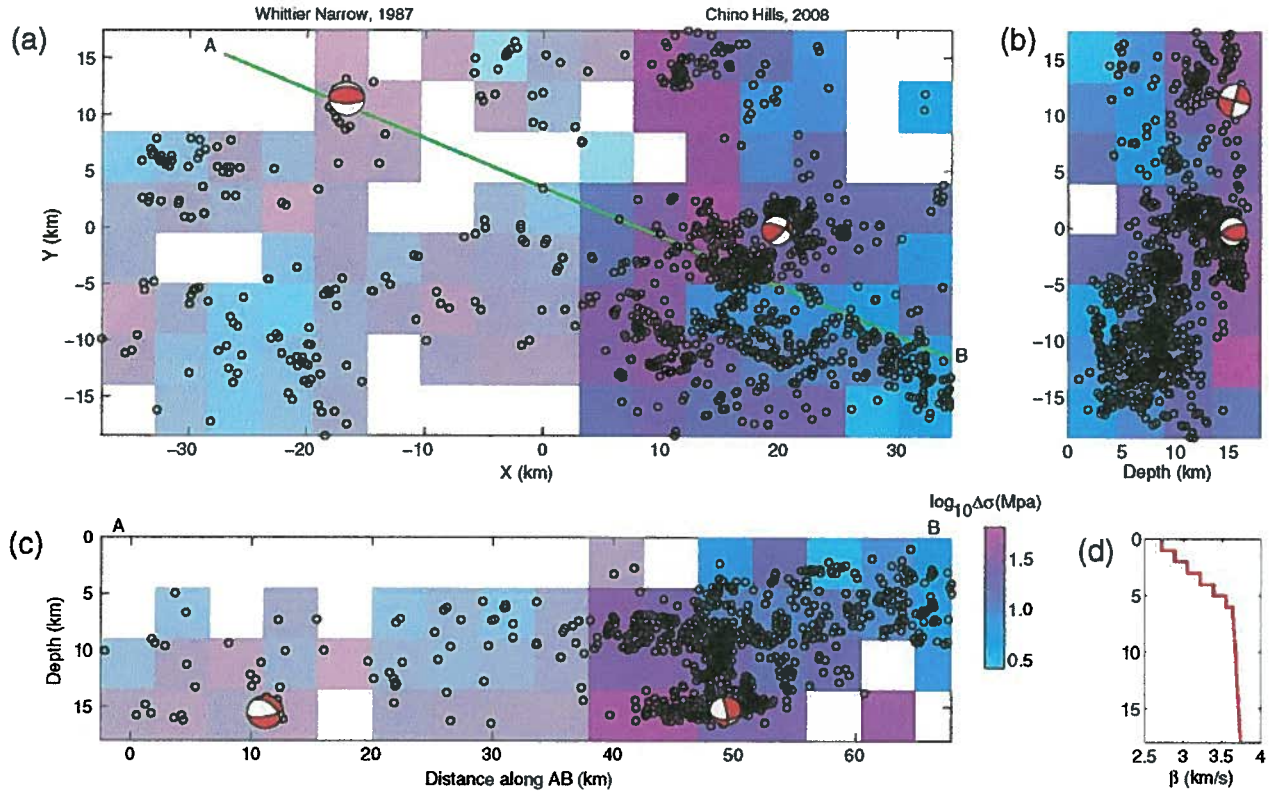


Figure 6. (a) Map view of stress-drop variation in the ELA basin area. Latitude and longitude coordinates are converted to distance relative to a zero point at the center (117.94° W, 33.95° N) of the ELA basin area (red dashed box in Fig. 1). Stress drops are smoothed in each 4.5 × 4.5 km grid and colored by $\log_{10}$ stress drop (legend at the lower right). Events used in stress-drop calculations are marked in black circles. Focal mechanisms of the Whittier Narrows earthquake and the Chino Hills earthquake are shown. The green AB line is drawn along the Whittier fault and extends to cover the Whittier Narrows epicenter. (b) The projection of (a) in the latitude-depth profile. (c) Events in (a) within 10 km distance of the AB line are selected and projected along the AB-depth profile. White colored grids in (a) and (c) have insufficient data and larger fitting errors. (d) The employed 1D shear-wave velocity model.

with regional tectonics and is likely caused by movement along two types of fault systems: the Whittier fault and other strike-slip faults and the blind Puente Hills Thrust (PHT) fault system. The Whittier fault is a right-lateral strike-slip fault, with its southern terminus at the north end of the Elsinore fault, which is a major fault striking subparallel to the San Andreas fault (SAF). Two left-lateral strike-slip faults, the San Jose and Raymond faults (Fig. 1) accommodate westward translation of crustal blocks and support the east–west escape tectonics model in the Los Angeles metropolitan region (Walls *et al.*, 1998). The terms "escape tectonics" and "extrusion tectonics" from Tapponnier *et al.* (1982) refer to the movement on strike-slip faults resulting from plate collision. The PHT system is associated with regional north–south compression, and its general depth range is from 5 to 15 km, based on seismic reflection surveys (Shaw and Shearer, 1999).

In the depth range between 0 and 9 km, the seismicity is controlled by the Whittier fault and east–west escape tectonics, with the strike of seismicity alignments commonly in a northwest–west direction and some percentage of normal faulting. We speculate that the two fault systems couple in the depth range between 9 and 12 km, where all three faulting styles coexist, and earthquakes are distributed evenly over the whole area. This zone appears to exhibit complex shearing over a broad depth interval rather than being a well-developed narrow shallow crustal decollement. The bottom of the seismogenic zone in depths between 12 and 18 km is generally controlled by the PHT fault system, with earthquakes concentrated into a few north–south strike clusters where reverse faulting dominates. This suggests the presence of thrust ramps. As the lower crust moves northward, underthrusting beneath the San Gabriel Mountains, it may load the thrust ramps with additional stress to accommodate the more westerly striking SAF system as compared to the northwestward plate motion.

The magnitude–depth relationship shows that moderate to larger earthquakes are more likely to nucleate near the base of the seismogenic zone in the ELA basin area, which is consistent with previous studies (Sibson, 1982; Das and Scholz, 1983). One of the statistical parameters that depicts the properties of regional seismicity is the *b* value in the

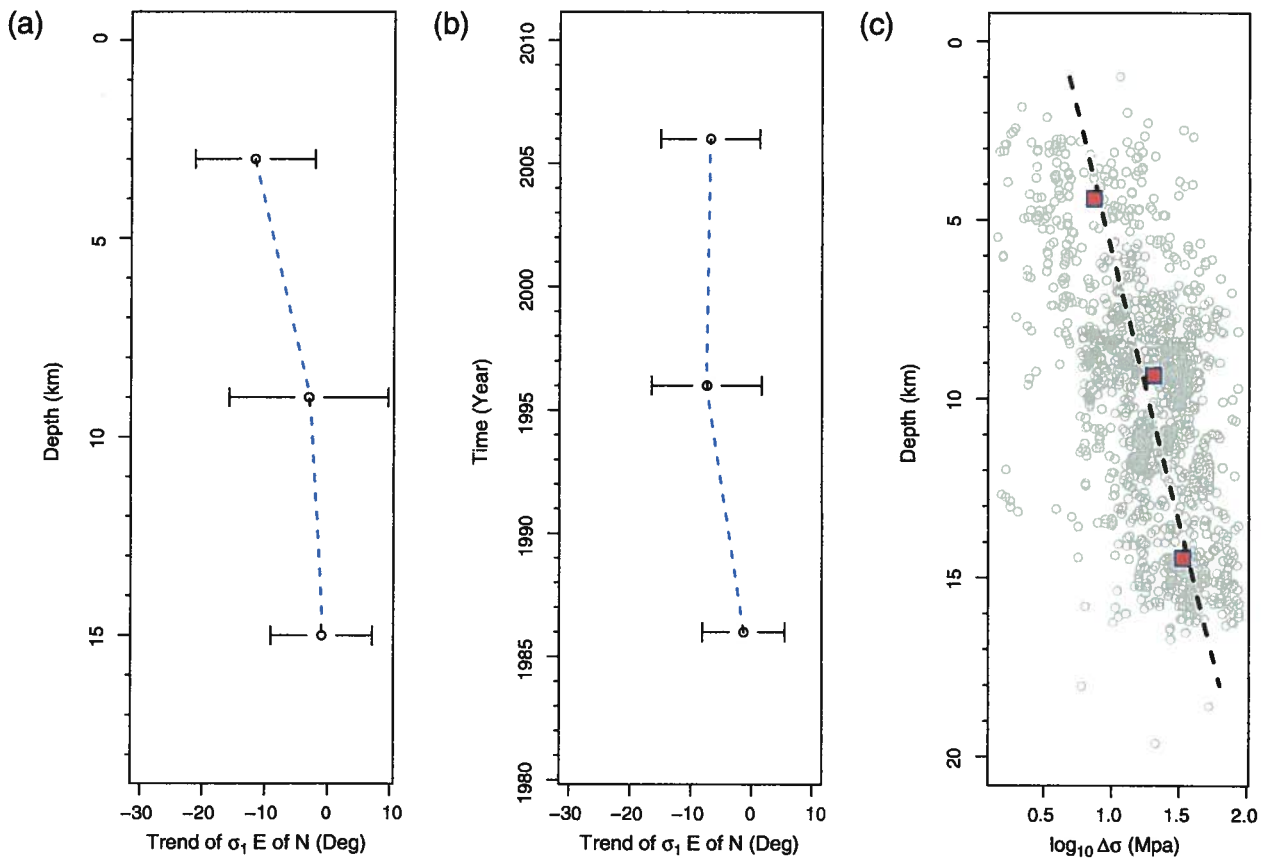


Figure 7. (a) The trend of the maximum horizontal stress orientations for three depth ranges. The error bar represents the one-sigma standard deviation determined from available data in each depth range. (b) The trend of the maximum horizontal stress orientations for three decades. The error bar represents the one-sigma standard deviation. (c) The variation of $\log_{10}$ stress drops (gray dots) with depth. The red squares are the median $\log_{10}$ stress drops at median depth in each 6-km depth range, and all of them are fitted by the least-square method (dashed line). (E, east; N, north.)

Gutenberg–Richter relationship (Gutenberg and Richter, 1944). The variation of b value could be associated with stress conditions (Scholz, 1968) and degree of material heterogeneity (Mogi, 1962). In our study, similar to Mori and Abercrombie (1997), we obtained a negative relationship between the b value and depth, which suggests that the stress conditions at increasing depth favors the nucleation of larger events instead of smaller ones. The stress-drop inversion shows that the $\log_{10}$ stress drop increases with depth, consistent with the patterns reported by Hardebeck and Hauksson (2001), Shearer *et al.* (2006) in the southern California region and by Yang *et al.* (2009) in the 1999 İzmit-Düzce aftershock zone in Turkey. Our results also agree with Schorlemmer *et al.* (2005) that the b value could be used as a stress meter and that the decrease of b value with depth implied an increase in differential stress.

Using the 30-year seismicity catalog, we also identified temporal variations in the stress-field orientation at the selected depth intervals. In a previous study, Press and Allen (1995) classified the southern California earthquakes into San Andreas (SA) and non-San Andreas (NSA) types and found that only one type of event predominates in a time epoch. During the period from 1981 to 1990, the stress-field orientation in the ELA basin was in a nearly north direction, which indicated that the stress field close to the bottom of the seismogenic zone was relatively active, accompanied by the occurrence of the 1987 Whittier Narrows M 5.9 earthquake sequence and the 1989 Montebello M 4.8 earthquake sequences (Hauksson, 1990). The stress-field orientation in the ELA basin rotated about 7° from north to the northwest in the 1990s and kept the same in the 2000s, which matched with the SA type. With the limited temporal span, we do not know when this SA-type epoch will end; however, the occurrence of the 2008 Chino Hills M_w 5.4 earthquake sequence and the recent 2010 Pico Rivera M_w 4.4 isolated deep earthquake (19 km; Hauksson *et al.*, 2008) could indicate the NSA-type earthquakes may become more frequent.

The stress drop is relatively high along the Whittier fault, and to the west of the Chino Hills hypocenter at around 15 km depth (Fig. 6c). Areas with relatively high stress drop could favor the occurrence of larger earthquakes. For example, the triggered 1999 Düzce M 7.1 mainshock occurred in a

region with high-stress-drop events along the North Anatolia fault (Yang *et al.*, 2009). Thus, part of the Whittier fault to the northwest of the Chino Hills 2008 earthquake hypocenter could be a potential source area for future moderate-to-large earthquake in the ELA basin.

Recent studies have shown that low-frequency events are associated with the down-dip edge in megathrust zones, such as in the Cascadian subduction zone (Rogers and Dragert, 2003) and the base of the seismogenic zone along the SAF in central California (Nadeau and Dolenc, 2004). With more sensitive instruments, possible beam-forming array techniques, and borehole observations, we might be able to detect such phenomena associated with slow slip along decollement beneath the ELA basin, and this could contribute to understanding how the shallow and deep tectonic regimes interact.

Based on the depth variations in stress drop, maximum compressional stress orientation, seismicity relationships, and previous work using geological and seismic refraction and reflection surveys in the ELA basin area (Fuis *et al.*, 2001; Bjorklund and Burke, 2002; Shaw *et al.*, 2002), we have assembled a 3D seismotectonic model as illustrated in Figure 8. The top of the model shows a map view of the ELA basin. In the front side of the model, the red arrows represent the orientation of maximum horizontal stress at shallow depth and at the bottom of the seismogenic zone in the ELA area. The relative low b value at around 5-km depth could be associated with the presence of the PHT fault in the same depth range. The right side of the model shows the Puente Hills anticline fold (Bjorklund and Burke, 2002), together with the Whittier fault and faults of the Puente Hills blind-thrust fault system, stress drops, and earthquakes in latitude–depth profile. The dashed lines at the bottom of the model represent regional decollement with the lower crust below it.

The low-angle aftershock planes (defined by aftershocks that occurred in the first three days) for both the Whittier Narrows and the Chino Hills earthquakes (Hauksson *et al.*, 2008), together with overall deepest earthquakes distribution in the ELA basin area, suggest that the bottom of

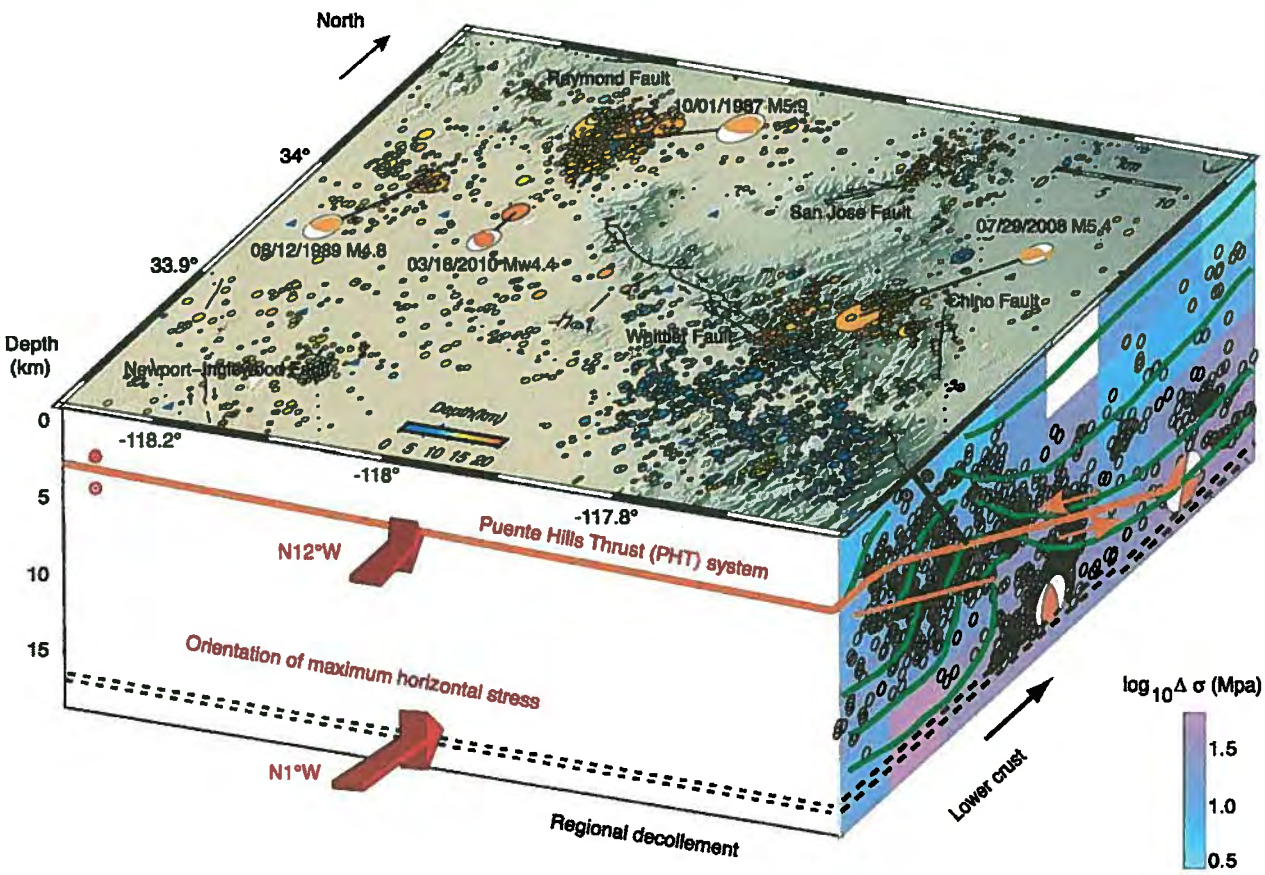


Figure 8. A comprehensive model of the seismotectonics of the ELA basin area. The top of the 3D block is the topographic map view of the ELA basin area (rectangle in Fig. 1). On the front face of the 3D block, red arrows mark the maximum horizontal stress orientation at shallow and midcrustal depths. The right face is the projection of Figure 6b, with the addition of the Puente Hills anticline fold (Bjorklund and Burke, 2002; green curves), the Whittier fault (black line), and the faults of the Puente Hills blind-thrust system (orange lines). The PHT system is also marked on the front face. Fault locations are from Plesch *et al.* (2007). The dashed parallel lines near the base correspond to the regional decollement, which separates the upper and lower crusts.

the seismogenic zone is almost flat, which is consistent with a regional horizontal decollement separating the upper brittle crust from the lower ductile crust (Hadley and Kanamori, 1978; Webb and Kanamori, 1985; Huang *et al.*, 1996). At depth below the decollement, the ductile lower crust drags the upper crust northward to underthrusting below the San Gabriel Mountains, and the deeper seismicity and the existence of the Puente Hills blind-thrust fault system and the Puente Hills anticline fold are the corresponding tectonic features in the upper crust. Furthermore, Sonder (1990) suggested that the variation of the maximum principal stresses direction observed in the Transverse Ranges of central California could be explained by density anomaly, and seismic evidence (Humphreys *et al.*, 1984) showed that a wedge-shaped high-density region exists underneath the Transverse Ranges in the upper mantle.

We infer that the pure strike-slip motion along the Elsinore fault to the south is partitioned onto the more westerly striking Whittier fault and east–west striking and north-dipping blind-thrust ramps at depth. These blind thrusts may sole out in a decollement at ~20 km depth. Large earthquakes can occur both on the Whittier fault and on the blind-thrust ramps. However, the spatial patterns of stress drop suggest that the deep-thrust faulting earthquakes have higher stress drops and thus can radiate more high frequencies, potentially causing more damage than the shallow strike-slip events.

Conclusions

Vertical partitioning of northwest-striking strike-slip tectonic motion and oblique-to-pure compressional motion exists beneath the east Los Angles basin. Strike-slip motion with a small component of normal motion characterizes the upper crust in the depth range of 0–9 km, with the seismicity being distributed along the Whittier fault. A transition zone in the depth range of 9–12 km exhibits diffuse distribution of background seismicity and mixed styles of faulting. Below 12 km, moderately dipping oblique-slip to pure compressional-slip tectonics dominate, with seismicity concentrating into few clusters striking north.

The calculated b value generally decreases with depth from 1.1 at shallow depth to 0.8 at the bottom of the seismogenic zone, with an outlier at around 5 km.

Evidence from the stress-field orientation inversion show that the direction of maximum compressional stress rotates from N12°W at shallow depth to N1°W at the bottom of the seismogenic zone in the ELA basin area. In comparison, the temporal variation of stress field is relative small over the past 30 years, with only about 6° rotation westward from the north direction since the 1980s.

Stress drops inverted from P waves increase with depth from around 7 MPa at shallow depth to around 53 MPa at the base of the seismogenic zone.

These conclusions are consistent with existing geological models and provide additional evidence for the vertical partitioning of styles of deformation and state of stress in the ELA basin area.

Data and Resources

The earthquake data used in this study were recorded by the Caltech/U.S. Geological Survey (USGS) Southern California Seismic Network (SCSN) and were made available by the Southern California Earthquake Data Center (SCEDC). The data were obtained from http://www.data.scec.org; and information about the network was from http://www.scsn.org. Most figures were done using Generic Mapping Tools (Wessel and Smith, 1991). The hypoDD, HASH, and SATSI programs were downloaded from the USGS (http://earthquake.usgs.gov/research/software). The LSH v.1.12 catalog was downloaded from http://www.data.scec.org/research/altcatalogs.html (last accessed October 2010).

Acknowledgments

This research was supported by U.S. Geological Survey Grant G10AP00017 and by the Southern California Earthquake Center (SCEC). SCEC is funded by National Science Foundation Cooperative Agreement EAR-0529922 and USGS Cooperative Agreement 07HQAG0008. This article is SCEC contribution number 1444 and contribution number 10053 of the Seismological Laboratory, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena. We gratefully acknowledge the Southern California Earthquake Data Center for providing the data set, Jeanne Hardebeck for providing the HASH and the SATSI programs and useful discussions, and Debi Kilb, Joann Stock, Iain Bailey, Peter Shearer, and Robert Yeats for valuable comments. We are grateful to the operators and analysts who maintain the USGS/Caltech Southern California Seismic Network and who pick and archive the seismograms.

References

Aki, K. (1965). Maximum likelihood estimate of b in the formula $\log N = a - bM$ and its confidence limits, *Bull. Earthq. Res. Inst.* **43,** 237–239.

Angelier, J. (1984). Tectonic analysis of fault slip data sets, *J. Geophys. Res.* **89,** 5835–5848.

Bjorklund, T., and K. Burke (2002). Four-dimensional analysis of the inversion of a half-graben to form the Whittier fold-fault system of the Los Angeles basin, *J. Struct. Geol.* **24,** 1369–1397.

Brune, J. N. (1970). Tectonic stress and the spectra of seismic shear waves from earthquakes, *J. Geophys. Res.* **75,** 4997–5009.

Das, S., and C. H. Scholz (1983). Why large earthquakes do not nucleate at shallow depths, *Nature* **305,** 621–623.

Fuis, G. S., T. Ryberg, N. J. Godfrey, D. A. Okaya, and J. M. Murphy (2001). Crustal structure and tectonics from the Los Angeles basin to the Mojave Desert, southern California, *Geology* **29,** 15–18.

Gephart, J. W., and D. W. Forsyth (1984). An improved method for determining the regional stress tensor using earthquake focal mechanism data: Application to the San Fernando earthquake sequence, *J. Geophys. Res.* **89,** 9305–9320.

Gutenberg, B., and C. F. Richter (1944). Frequency of earthquakes in California, *Bull. Seismol. Soc. Am.* **34,** 185–188.

Hadley, D., and H. Kanamori (1978). Recent seismicity in the San Fernando region and tectonics in the west-central Transverse Ranges, California, *Bull. Seismol. Soc. Am.* **68,** 1449–1457.

Hardebeck, J. L., and E. Hauksson (2001). Crustal stress field in southern California and its implications for fault mechanics, *J. Geophys. Res.* **106,** 21,859–21,882.

Hardebeck, J. L., and A. J. Michael (2006). Damped regional-scale stress inversions: Methodology and examples for southern California and the Coalinga aftershock sequence, *J. Geophys. Res.* **111,** no. B11310, doi 10.1029/2005JB004144.

Hardebeck, J. L., and P. M. Shearer (2002). A new method for determining first-motion focal mechanisms, *Bull. Seismol. Soc. Am.* **92,** 2264–2276.

Hardebeck, J. L., and P. M. Shearer (2003). Using S/P amplitude ratios to constrain the focal mechanisms of small earthquakes, *Bull. Seismol. Soc. Am.* **93,** 2434–2444.

Hauksson, E. (1990). Earthquakes, faulting, and stress in the Los Angeles basin, *J. Geophys. Res.* **95,** 15365–15394.

Hauksson, E. (2000). Crustal structure and seismicity distribution adjacent to the Pacific and North America plate boundary in southern California, *J. Geophys. Res.* **105,** 13,875–13,903.

Hauksson, E., and L. Jones (1989). The 1987 Whittier Narrows earthquake sequence in Los Angeles, southern California: Seismological and tectonic analysis, *J. Geophys. Res.* **94,** 9569–9589.

Hauksson, E., K. Felzer, D. Given, M. Giveon, S. Hough, K. Hutton, H. Kanamori, V. Sevilgen, S. Wei, and A. Yong (2008). Preliminary report on the 29 July 2008 M_w 5.4 Chino Hills, eastern Los Angeles basin, California, earthquake sequence, *Seism. Res. Lett.* **79,** 855–866.

Hauksson, E., L. M. Jones, T. L. Davis, K. L. Hutton, P. Williams, A. L. Bent, G. Brady, P. A. Reasenberg, A. J. Michael, R. F. Yerkes, E. Etheredge, R. L. Porcella, M. J. S. Johnston, G. Reagor, C. W. Stover, C. G. Bufe, E. Cranswick, and A. K. Shakal (1988). The 1987 Whittier Narrows earthquake in the Los Angeles metropolitan area, California, *Science* **239,** 1409–1412.

Huang, W., L. T. Silver, and H. Kanamori (1996). Evidence for possible horizontal faulting in southern California from earthquake, *Geology* **24,** 123–126.

Humphreys, E., R. W. Clayton, and B. H. Hager (1984). A tomographic image of mantle structure beneath Southern California, *Geophys. Res. Letters* **11,** 625–627.

Hutton, K., J. Woessner, and E. Hauksson (2010). Earthquake monitoring in southern California for seventy-seven years (1932–2008), *Bull. Seismol. Soc. Am.* **100,** 423–446.

Kanamori, H. (1977). The energy release in great earthquakes, *J. Geophys. Res.* **82,** 2981–2987.

Lin, G., P. Shearer, and E. Hauksson (2007). Applying a three-dimensional velocity model, waveform cross correlation, and cluster analysis to locate southern California seismicity from 1981 to 2005, *J. Geophys. Res.* **112,** no. B12309, doi 10.1029/2007JB004986.

Madariaga, R. (1976). Dynamics of an expanding circular fault, *Bull. Seismol. Soc. Am.* **66,** 639–666.

Michael, A. J. (1984). Determination of stress from slip data: Faults and folds, *J. Geophys. Res.* **89,** 11,517–11,526.

Mogi, K. (1962). Magnitude-frequency relation for elastic shocks accompanying fractures of various materials and some related problems in earthquakes, *Bull. Earthq. Res. Inst.* **40,** 831–853.

Mori, J., and R. E. Abercrombie (1997). Depth dependence of earthquake frequency-magnitude distributions in California: Implications for rupture initiation, *J. Geophys. Res.* **102,** no. B7, 15,081–15,090.

Nadeau, R. M., and D. Dolenc (2004). Nonvolcanic tremors deep beneath the San Andreas fault, *Science* **307,** 389.

Park, J., C. R. Lindberg, and F. L. Vernon (1987). Multitaper spectral analysis of high frequency seismograms, *J. Geophys. Res.* **92,** 12,675–12,648.

Plesch, A., J. H. Shaw, C. Benson, W. A. Bryant, S. Carena, M. Cooke, J. Dolan, G. Fuis, E. Gath, L. Grant, E. Hauksson, T. H. Jordan, M. Kamerling, M. Legg, S. Lindvall, H. Magistrale, C. Nicholson, N. Niemi, M. Oskin, S. Perry, G. Planansky, T. Rockwell, P. Shearer, C. Sorlien, M. P. Süss, J. Suppe, J. Treiman, and R. Yeats (2007). Community fault model (CFM) for southern California, *Bull. Seismol. Soc. Am.* **97,** 1793–1802.

Press, F., and C. Allen (1995). Patterns of seismic release in the southern California region, *J. Geophys. Res.* **100,** 6421–6430.

Rogers, G., and H. Dragert (2003). Episodic tremor and slip on the Cascadia subduction zone: The chatter of silent slip, *Science* **300,** 1942–1943.

Scholz, C. H. (1968). Mircrofractures, aftershocks, and seismicity, *Bull. Seismol. Soc. Am.* **58,** 1117–1130.

Schorlemmer, D., S. Wiemer, and W. Max (2005). Variations in earthquake-size distribution across different stress regimes, *Nature* **437,** 539–542.

Shaw, J. H., and P. M. Shearer (1999). An elusive blind-thrust fault beneath metropolitan Los Angeles, *Science* **283,** 1516–1518.

Shaw, J., A. Plesch, J. Dolan, T. Pratt, and P. Fiore (2002). Puente Hills blind-thrust system, Los Angeles, California, *Bull. Seismol. Soc. Am.* **92,** 2946.

Shearer, P. M. (1997). Improving local earthquake locations using the L1 norm and waveform cross-correlation: application to the Whittier Narrows, California, aftershock sequence, *J. Geophys. Res.* **102,** 8269–8283.

Shearer, P. M., G. A. Prieto, and E. Hauksson (2006). Comprehensive analysis of earthquake source spectra in southern California, *J. Geophys. Res.* **111,** no. B06303, doi 10.1029/2005JB003979.

Shi, Y., and B. A. Bolt (1982). The standard error of the magnitude—frequency b value, *Bull. Seismol. Soc. Am.* **72,** 1677–1687.

Sibson, R. (1982). Fault zone models, heat flow, and the depth distribution of earthquakes in the continental crust of the United States, *Bull. Seismol. Soc. Am.* **72,** 151–163.

Sonder, L. (1990). Effects of density contrasts on the orientation of stresses in the lithosphere: Relation to principal stress directions in the Transverse Ranges, California, *Tectonics* **9,** 761–771.

Tapponnier, P., G. Peltzer, A. Y. L. Dain, and R. Armijo (1982). Propagating extrusion tectonics in Asia: New insights from simple experiments with plasticine, *Geology* **10,** 611–616.

Thomson, D. J. (1982). Spectrum estimation and harmonic analysis, *Proc. IEEE.* **70,** 1055–1096.

Thurber, C. H. (1993). Local earthquake tomography: Velocities and V_P/V_S theory, in *Seismic Tomography: Theory and Practice*, H. M. Iyer and K. Hirahara (Editors), Chapman and Hall, London, 563–583.

Waldhauser, F., and W. L. Ellsworth (2000). A double-difference earthquake location algorithm: Method and application to the northern Hayward fault, *Bull. Seismol. Soc. Am.* **90,** 1353–1368.

Walls, C., T. Rockwell, K. Mueller, Y. Bock, S. Williams, J. Pfanner, J. Dolan, and P. Fang (1998). Escape tectonics in the Los Angeles metropolitan region and implications for seismic risk, *Nature* **394,** 356–360.

Webb, T., and H. Kanamori (1985). Earthquake focal mechanisms in the eastern Transverse Ranges and San Emigdio Mountains, southern California and evidence for a regional decollement, *Bull. Seismol. Soc. Am.* **75,** 737–757.

Wessel, P., and W. H. F. Smith (1991). Free software helps map and display data, *Eos Trans. AGU,* **72,** 441, 445–446.

Yang, W., Z. Peng, and Y. Ben-Zion (2009). Variations of strain drops in aftershocks of the 1999 Izmit and Düzce earthquakes along the Karadere-Düzce branch of the North Anatolian fault, *Geophys. J. Int.* **177,** 235–246.

Seismological Laboratory
California Institute of Technology
1200 E. California Blvd.
Mail Code 252-21
Pasadena, California 91125

Manuscript received 9 August 2010

EXHIBIT 8

Bloomberg.com

Tsunami Wall of Water Risk Known to Engineers, Regulators

Share | **Email** | **Print** | **A A A**

By Jason Clenfield, Yuriy Humber and Shigeru Sato

March 26 (Bloomberg) -- Japan's nuclear regulators and the operator of the crippled Fukushima reactors were warned that a tsunami could overwhelm the plant's defenses and failed to recognize the threat.

The Trade Ministry dismissed evidence two years ago from geologists that the power station's stretch of coast was overdue for a giant wave, minutes from a government committee show. **Tokyo Electric Power Co.** engineers also didn't heed lessons from the 2004 tsunami off Indonesia that swamped a reactor 2,000 kilometers (1,200 miles) away in India, even as they **advised** the nuclear industry on coping with the dangers.

Tokyo Electric's Dai-Ichi plant withstood the impact of Japan's **record earthquake** March 11, only for a wall of water to knock out generators needed to keep its reactors cool. The cost of the miscalculation mounted as explosions and fires at the plant caused radiation leaks that forced the evacuation of more than 200,000 people and contaminated drinking water.

"The Japanese system underestimated the natural threat from the earthquake and tsunami," said Pierre Zaleski of University Paris Dauphine and a former French Atomic Energy Commission member. "They really haven't taken these threats seriously enough, and they haven't moved fast enough."

Tokyo Electric's sea-wall defenses for the Dai-Ichi plant were built under the assumption that the coastline on which it sat wasn't prone to tsunamis higher than 5.5 meters, said Yoshimi Hitosugi, a Tokyo-based company spokesman.

Historical Precedent

An 8-meter tsunami that hit Japan's northeast in 869 swept as far as 4 kilometers inland at Sendai Bay, stretching south toward the Dai-Ichi plant, according to at least half a dozen scientific studies spanning more than a decade.

A repeat could occur soon because sediment samples showed the tsunami had a pattern of recurring every 800 to 1,000 years, according to a 2001 **report** by a research team funded by the government's Science Ministry.

Minutes of a committee meeting held by the Trade Ministry to assess reactor safety on June 24, 2009, show that Yukinobu Okamura, who heads the government-funded **Active Fault and Earthquake Research Center**, asked Tokyo Electric why it hadn't taken on board evidence of the tsunami risk.

"We didn't think the damage would be that significant," replied Isao Nishimura, a manager at Tokyo Electric's nuclear earthquake resistance technology center.

Debate Cut

The debate was cut short by an official from the regulator, **Nuclear and Industrial Safety Agency**,

who said the matter needed study. The agency approved the safety report a month later, calling on Tokyo Electric to "take appropriate measures" to adopt lessons from research on tsunami risk.

"The utility bears some responsibility for this, but the regulator didn't give any guidance," Okamura said in a March 23 phone interview. "Looking back, I wish I had pressed harder. It's easy to say after the fact."

The committee's focus was on the impact of earthquake vibration and it was turning to tsunamis after, said **Yuji Wakamatsu**, a spokesman for the nuclear safety agency.

Tokyo Electric engineers were looking at tsunami risk at least as far back as 2005.

The tsunami caused by the December 2004 earthquake off the Indonesian island of Sumatra led to a conference in Tamil Nadu, India, hosted by Kalpakkam nuclear station, which had survived a direct hit.

Tsunami Advice

At the August 2005 forum, Tokyo Electric senior nuclear engineer Toshiaki Sakai delivered a report called "Tsunami Evaluation Method for Nuclear Power Stations in Japan," according to the **IAEA**'s website. The company declined to make him available for an interview and Hitosugi said it cannot find the report.

Japan's delegation gave guidance on coping with tsunami threats and developed a system to evaluate risks and protect reactors, the IAEA said in a report from the conference on its website.

The lesson from the Kalpakkam plant was simple: build high, said S. Krishnamurthy, executive director of operations at Nuclear Power Corp. of India, who was in charge at the time.

"Kalpakkam has been built in such a way that almost all its units, except of course the pump house that pumps sea water, are at an elevation," he said this week.

Onagawa Too

Tohoku Electric Power Co.'s Onagawa nuclear power plant was about 75 kilometers closer to the epicenter of the quake, and suffered no critical damage because it was built 15 meters above sea level, spokesman **Yoshitake Kanda** said.

In both instances, reactors were safely shut down and cooling systems continued to operate.

In 2009, Japan's Nuclear Safety Commission listed the "Seismic Roadmap" as one of its key priorities, with an emergency preparedness program for tsunami as one of the mid- term plans it was working on between 2007 and 2012, according to the commission's report from February 2009.

Last November, Tokyo Electric hosted the first symposium on seismic safety of nuclear installations at **Kashiwazaki**, home to the world's largest nuclear plant which was shut down after a 2007 earthquake caused a fire and spillage of radioactive water. One of four main sessions was on tsunamis, during which IAEA's Kenta Hibino made a presentation on the global nuclear community's "work plan for tsunami hazard."

The IAEA declined to set up an interview with Hibino, saying all its experts were busy dealing with the crisis.

Huge Waves

Japan has suffered 195 tsunamis since 400, according to Japan's Central Research Institute of Electric Power Industry, which produced a report on tsunami threats to nuclear plants on the opposite coast to Dai-Ichi in July 2008. Three in the past three decades had waves of more than 10 meters.

A 7.6-magnitude quake in 1896 off the east coast of Japan created waves as high as 38 meters, while an 8.6- magnitude temblor in 1933 led to a surge as high as 29 meters, according to the **U.S. Geological Survey**.

Geologist Masanobu Shishikura, a researcher under Okamura who has focused on the 869 tsunami, said he wasn't surprised historical evidence wasn't heeded to. When he presented to government officials

from two towns on the coast north of Dai-Ichi, the urgency wasn't clear even to him.

Today, those towns of Higashi Matshushima and Ishinomaki lie in ruins.

"At the time, we thought it was unfortunate they didn't take us seriously, but we figured it was just a matter of making a better presentation," Shishikura said. "If only the tsunami had waited a little longer, we might have been ready."

Shishikura was due to meet Fukushima prefecture officials this week.

To contact the reporter on this story: **Jason Clenfield** in Tokyo at **jclenfield@bloomberg.net**; **Yuriy Humber** in Tokyo at **yhumber@bloomberg.net**; **Shigeru Sato** in Tokyo at **ssato10@bloomberg.net**.

To contact the editor responsible for this story: Peter Langan at **plangan@bloomberg.net**

Last Updated: March 25, 2011 11:00 EDT

© 2011 BLOOMBERG L.P. ALL RIGHTS RESERVED. Terms of Service | Privacy Policy | Trademarks

EXHIBIT 9

Major Losses of Up to $250 Billion Projected for Earthquakes on Puente Hills Fault Under Los Angeles

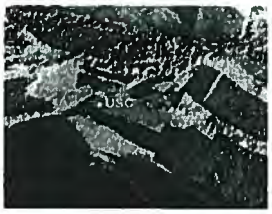
Potential earthquakes on the Puente Hills fault beneath the Los Angeles area could result in 3,000 to 18,000 fatalities, 142,000 to 735,000 displaced households, and more than $250 billion in total damages, according to U.S. Geological Survey (USGS) and Southern California Earthquake Center (SCEC) research.

Media resources

This research was supported by

The Southern California Earthquake Center (SCEC) is a consortium funded by the National Science Foundation (NSF) and the USGS. SCEC involves over 400 scientists at more than 50 research institutions, and is headquartered at the University of Southern California (USC).

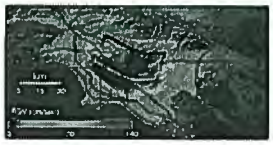
The new research results, published in the May 2005 issue of the Earthquake Engineering Research Institute's Earthquake Spectra, were based on shaking scenarios created using newly available software for seismic hazard analysis developed by SCEC and the USGS, coupled with HAZUS loss-estimation software developed by the Federal Emergency Management Agency (FEMA).



Location of the Puente Hills fault in Los Angeles — Larger Image

Source: SCEC

The Puente Hills fault was discovered in 1999. In 2003, a study led by SCEC researchers at USC found that the fault had ruptured at least four times in the last 11,000 years, with magnitudes ranging from 7.2 to 7.5. To determine probable losses from such earthquakes on the Puente Hills fault, the authors of the new study created 18 different scenarios depicting different possible shaking levels throughout the region. The authors noted that it is vital to understand that the loss scenarios themselves are somewhat uncertain because of the many variables involved in predicting ground shaking, including whether the full fault ruptures or just part of it. Also, the formal quantification of loss estimates is still a challenging and imprecise science, even using the best available models and scientific data.



Peak ground velocity from a simulated Puente Hills earthquake — Larger Image

Source: Field and others, 2005

Infrequent but Deadly Earthquakes Pose Hazard, Show Need for Preparedness

USGS researcher Ned Field, the lead author of the study, said that although the scenarios show that the vast majority of losses will occur in Los Angeles County, directly over the rupture surface, tangible losses are also predicted for San Bernardino and Orange counties located east and south of the Puente Hills fault. The losses predicted for this event are greater than those experienced during the 1994 Mw 6.7 Northridge earthquake, both because of the higher potential magnitudes and because the heavily shaken area during Northridge was mostly wood-frame residential structures, whereas Puente Hills sits under older and more vulnerable commercial and industrial structures.

The authors also emphasize that a full Puente Hills fault rupture is a rare event, occurring once

every 3,000 years or so. "In fact," said Field, "as an individual your odds of dying of a heart attack or an auto accident are much greater than dying from this earthquake." "That being said," Field added, "there are other sources of earthquakes throughout the region, and it's not question of if, but when, so everyone should take necessary safety precautions. With USGS science, we are striving to prevent these natural hazards from becoming disasters." Furthermore, he said, a Puente Hills earthquake would have widespread impact, so it's also up to emergency and public policy officials to plan accordingly.

Building damage from Puente Hills earthquake Larger image

Source: Field and others, 2005

"Quantifying earthquake risk is difficult and fraught with many uncertainties," said Tom Jordan, director of the Southern California Earthquake Center, and a co-author of the new study. "One of the main goals of this study was to use our improved knowledge of seismic hazards in Southern California to evaluate — and hopefully reduce — the uncertainties in this type of risk analysis."

The researchers determined a probable range of estimated losses by averaging losses predicted under each scenario and model. The scenarios all assumed an earthquake occurring at 2 p.m. during a weekday, when many people are at work. The number of casualties would be significantly less if an earthquake were to occur on the fault at night when most people are at home. Their results showed that:

- The estimated number of fatalities could range between 3,000 and 18,000, with an average of 7,600. Northridge, with a Mw of 6.7 resulted in 33 direct fatalities, and the 1995 Mw 6.9 Kobe, Japan earthquake resulted in 6,348 fatalities.
- The total number of injuries could range between 56,000 and 268,000, or an average of about 120,000.
- The number of displaced households ranged from 142,000 to 735,000, with an average of 274,000.
- Relief agencies would have to provide short-term public shelter for 42,000 to 211,000 people, with an average or 80,000 people needing short-term public shelter.
- The amount of debris generated by such an earthquake would range between 30,000 and 99,000 tons, averaging 51,000 tons.

These projections assume that no efforts have occurred that would improve infrastructure so as to reduce earthquake losses before the earthquake happens, Jordan noted, adding, "If society chooses to invest in mitigation, many of these losses could be avoided."

"The Puente Hills blind thrust loss estimation results illustrate how much we have been able to learn about the complexities of earthquakes, the associated ground shaking, and their societal effects," said Kaye Shedlock, program director in NSF's division of earth sciences, which funds SCEC. "These results also help clearly focus what we still need to learn to mitigate the loss of life and the economic impacts from earthquakes."

SCEC gathers new information about earthquakes in Southern California, integrates this information into a comprehensive and predictive understanding of earthquake phenomena, and communicates this understanding in order to increase earthquake awareness, reduce economic losses, and save lives.

The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.

Created in the SCEC CORE system Last modified: December 03 2007 14:11 © 2011 SCEC Southern California Earthquake Center @ USC
Privacy Policy and Accessibility Policy

EXHIBIT 10

Induced Seismicity

EGS: The Geysers: What is the history of seismicity at The Geysers?

Prior to the beginning of geothermal exploitation at The Geysers seismicity was very low, however, the seismic coverage of stations was also very low. Never the less, according to USGS historical records for northern California in a two degree box centered on The Geysers no events we detected (above magnitude 2) before 1969. Current studies of The Geysers Geothermal Field seismicity have reached the conclusion that deep-well injection in the field produces mostly micro-seismic events, with magnitude on the Richter Scale (M) mostly between 0.5-3.0. As can be seen in the figure below the seismicity between magnitude 3.0 and 4.6 (the largest event recorded in The Geysers field which was in 1973) is on the order of a few magnitude 4 events per year and on the order of 20 to 30 magnitude 3 events per year. Although the magnitude 4 events have been increasing the number of magnitude three events have been relatively constant since the mid 1980's, although the rate of injection has been increasing since then.

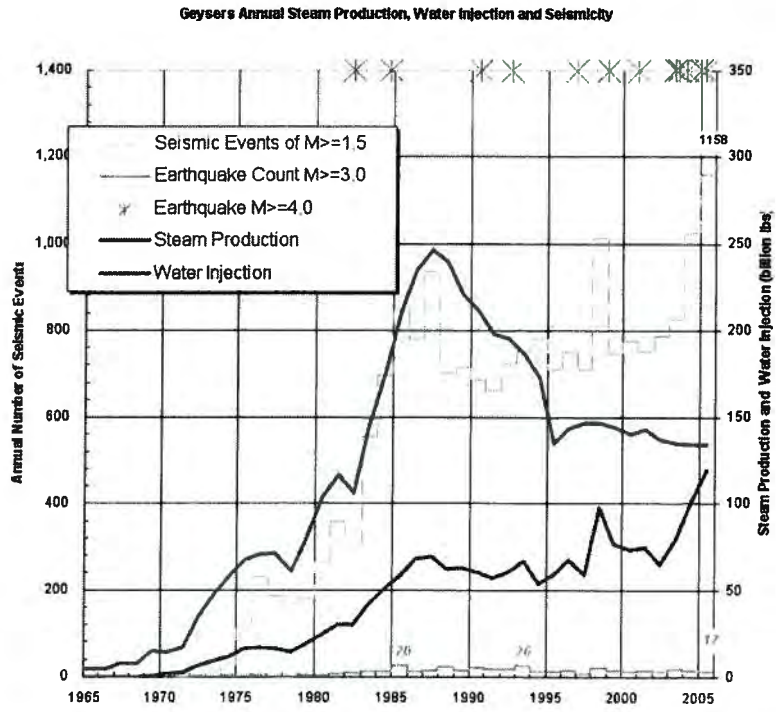


Figure 1. The Geysers annual steam production (red line) plotted with the earthquake activity (M > 1.5 events), and water injection (blue line). Also shown are the M> 3.0 events (green solid line at bottom of plot) and M > 4 events (stars at top of chart).

The second figure shows the typical distribution of seismicity over the entire Geysers field for a typical year's time.

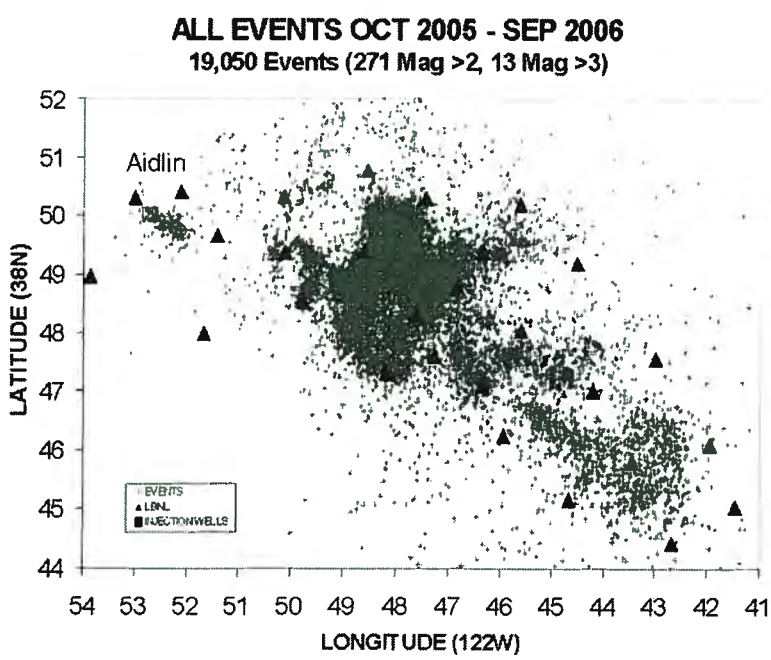


Figure 2. A plan view of The Geysers geothermal field. The triangles are the locations of the seismic monitoring stations and the blue boxes are the locations of some of the injection wells.

It is worthwhile to note that worldwide EGS project induced seismicity data indicate that the largest event linked to EGS activities was M3.7 to date in the Cooper Basin of Australia. However, research based on maximum fault lengths in the region indicates that a magnitude 5.0 is the largest possible (but not probable) event in the Geysers.

The largest seismic events of the past 12 years in the NCPA area occurred within the Big Sulphur Creek Fault Zone, a fault that is not considered active at the surface but does form the southwestern boundary of the Geysers steam reservoir. Future EGS Demo Project activities have been designed to avoid this zone. A concern to the residents is not only the amount of seismicity but the magnitude of the largest seismic event likely to occur. Although no one can accurately predict earthquakes the magnitude of an earthquake is dependent on the surface area that can slip, i.e., the length times the depth or width of the fault. Therefore, a large earthquake can occur only on a large fault. There are no mapped faults of large length in The Geysers, so it is extremely unlikely that induced seismicity caused by activities in The Geysers will lead to a large earthquake. There are some zones that may be faults, but which have no surface expression; the Big Sulfur Creek Fault Zone is the closest possible fault of this kind. Though the risk associated with this feature is very small, a buffer zone has been established around it to further reduce the probability that seismicity caused by water injection (hydroshearing) will migrates towards the fault.

« Back to EGS: The Geysers

WILDLIFE CORRIDOR CONSERVATION AUTHORITY
570 WEST AVENUE 26, SUITE 100, LOS ANGELES, CALIFORNIA 90065
TELEPHONE: (310) 589-3230
FAX: (310) 589-2408

GLENN PARKER
CHAIR
PUBLIC MEMBER
ORANGE COUNTY

MICHAEL HUGHES
VICE-CHAIR
PUBLIC MEMBER
LOS ANGELES COUNTY

BOB HENDERSON
CITY OF WHITTIER

RON KRUEPER
CALIFORNIA STATE PARKS

BRETT MURDOCK
CITY OF BREA

SANTA MONICA MOUNTAINS CONSERVANCY

DICKIE SIMMONS
LOS ANGELES COUNTY BOARD OF SUPERVISORS

JACK TANAKA
CITY OF DIAMOND BAR

HOWARD VIPPERMAN
CITY OF LA HABRA HEIGHTS

July 20, 2011

Jeff Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602

Comments on Whittier Main Oil Field Project Draft Environmental Impact Report

Dear Mr. Adams:

The Wildlife Corridor Conservation Authority (WCCA) has reviewed the Whittier Main Oil Field Development Project Draft Environmental Impact Report (DEIR) and offers the following comments.

WCCA was created for the proper planning, conservation, environmental protection and maintenance of the habitat and wildlife corridor between the Whittier-Puente-Chino Hills and the Cleveland National Forest in the Santa Ana Mountains. As the last major natural open space resource connecting Los Angeles, Orange, San Bernardino, and Riverside counties, the wildlife corridor provides essential relief from the urban environment. It exists as a single ecosystem in which changes that affect one part will invariably affect all other parts.

WCCA is concerned with the potentially significant biological and recreational impacts associated with the proposed project. The Whittier-Puente Hills regional habitat block is one of the best examples in the nation of a functional urban habitat area that remains tenuously connected to larger National Forest lands. That function is tenuous and the breaking points cannot be pinpointed with certainty. Any project developed in the Whittier-Puente Hills regional habitat block must make a major permanent contribution to both the quantity of protected habitat and the quality of habitat. Any project developed in the Whittier-Puente Hills regional habitat block must also maximize efforts to maximize immediate and long-term habitat capability in affected parts of the regional habitat block system. The net, post-project condition should leave a stronger and larger protected habitat block and the mitigation measures should maintain the ecological capability of the current ecosystem throughout the life of the project. Because of the sensitivity of the area and because of the environmental impacts identified in the DEIR, we urge the lead agency to incorporate certain voluntary measures.

A LOCAL PUBLIC AGENCY ESTABLISHED PURSUANT TO THE JOINT EXERCISE OF POWERS ACT

To achieve these public protections of this regionally and scientifically significant habitat area and recreational resource, the applicant should offer significant additional mitigation than what is covered in the DEIR. That mitigation should be offered voluntarily and be included in the Final Environmental Impact Report (FEIR). This additional mitigation includes more funding for, or acquisition of, habitat lands, creation of an additional safe crossing along Colima Road, and a wildlife movement study. The most recently adopted position letter of the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority) concurs that mitigation should be expanded to bolster these areas.

As shown in the next few pages of this letter, the DEIR text provides ample support to show that the Project would be disruptive and highly impacting to many parts of the regional habitat block.

Potentially Significant Impacts to Biological and Recreational Resources

Some of those impacts of greatest concern to WCCA are described in more detail below.

The Project will result in potentially significant direct and indirect, permanent and long-term "temporary", impacts to the Puente Hills Landfill Native Habitat Preserve (Preserve), including Core Habitat, as identified by the Habitat Authority.

The DEIR (p. 4.2-35) describes the importance of this Core Habitat:

WCCA-1

> As shown on Figure 4.2-7, the Project Site and North Access Road...are located in the Core Habitat Management Zone... This Zone constitutes the largest contiguous area in the Preserve that is well-buffered from such "edge effects" as lighting, noise, and intrusions by humans and domestic animals. As a result, this Zone is considered to be an important wildlife nursery site for such species as the bobcat and mule deer...bobcats use the Project Site (i.e., the area west of Colima Road) in the highest density found in the Preserve and that mule deer have the highest activity in this area over the entire Puente-Chino Hills (Haas and Crooks 1999).

As stated in the DEIR (p. 4.2-23), the western portion of the Project Site is closed to the public. The proposed Project will introduce new substantial disturbance. Increased levels of drilling operations and human activities in the Core Habitat, which currently had minimal disturbances, would result in substantial impacts to wildlife movement (DEIR, p. 4.2-54). The increased levels of noise, light, human presence, and vehicle traffic, during both the construction and operational phases of the Project, could result in significant adverse effects upon a critical wildlife movement linkage (DEIR, p. 4.2-54). Loss and degradation of habitats at the Project Site could be expected to have greater adverse effects upon ecological processes and native wildlife populations than would occur in an area with

comparable natural communities that does not occupy such a sensitive location within a natural Preserve (DEIR, p. 4.2-52).

Of note, the proposed North Access Road would traverse approximately 1.2 miles within the Preserve (plus 1.3 miles within the Savage Canyon Landfill; DEIR, pp. 2.19 to 2-20), and would entail road widening of an existing road, requiring fuel clearance of 10 feet on either side (DEIR, p. 4.2-47). It courses through Core Habitat (DEIR, Figure 4.2-7), and would entail removing coastal sage scrub (DEIR, Figure 4.2-9), affecting coastal California gnatcatchers (a bird species considered threatened by United States Fish and Wildlife Service), including a family group (DEIR, Figure 4.2-3). As the DEIR (p. 4.2-39) states, additional impacts to biological resources, including new and increased usage of roads and disturbances from noise, lighting, and increased human presence, would also cause avoidance of an area and would affect (wildlife) movement (DEIR, p. 4.2-39). Roads are known to fragment habitat and result in wildlife roadkill (e.g., of mammals, amphibians, reptiles, birds, etc.). This access road would increase pressure on an already constricted wildlife movement corridor and therefore, the overall effect would be an increase in impacts to biological resources (DEIR, p. 4.2-54).

WCCA is particularly concerned with the potential for significant *indirect* impacts to wildlife and other biological resources in the Preserve and beyond. Such impacts include, but are not limited to, noise, vibration, lighting, and human activity. The preponderance of evidence argues for immediate action to manage noise in protected natural areas (Barber et al. 2009, as cited in the DEIR, p. 4.2-20). Noise negatively affects birds and communities (Francis et al. 2009, as cited in the DEIR, p. 4.2-21). Bats have also been shown to be negatively affected by noise (Schaub et al. 2008, as cited in the DEIR, p. 4.2-21). Lighting has also been shown to adversely affect wildlife in numerous ways (Longcore and Rich 2004)[1]. Although data on wildlife response to vibration impacts is not well documented (DEIR, p. 4.2-53), it is reasonable to assume that wildlife would be adversely disturbed by vibrations, as they are disturbed by other forms of urbanization. Given the length of the project (30 years), the increase in vehicle traffic through the Preserve, the extent of drilling and redrilling proposed by the Project, and in combination with all the other impacts associated with the project (e.g., loss of habitat, lighting, noise, human activity, etc.), vibrational impacts certainly have the potential to contribute to significant adverse impacts to wildlife.

---

[1] Longcore, T. and C. Rich. 2004. Ecological light pollution. Frontiers in Ecology and Environment. 2(4): 191-198.

The proposed project will result in potentially significant impacts to bobcats, other mammals, and wildlife movement.

The Project Site is a hotspot for bobcats, and bobcats are known to be sensitive to urbanization. Furthermore, the project will result in potentially significant impacts to wildlife movement associated with the Colima Road Service Tunnel.

WCCA-2

According to the DEIR (p. 4.2-7), the Project Site is known to provide some of the best habitat in the Preserve for the bobcat. The Habitat Authority indicated that the Proposed Project vicinity currently exhibits the highest bobcat activity in the entire Preserve (Habitat Authority July 14, 2011 letter, p. 8). Research indicates that bobcats, known breeders in the Core Habitat Management Zone, are among the species known to avoid urban edges (DEIR, p, 4.2-37).

The Colima Road Service Tunnel has been identified as an important element of wildlife movements in the area and the impacts to wildlife movement would be significant (DEIR, p. 4.2-54). Bobcats showed the highest level of use recorded at the Colima Service Tunnel, followed by mule deer and gray fox (DEIR, p. 4.2-23). Haas and Crooks (1999, as cited in the DEIR, p. 4.2-23) indicated that this underpass is the only link between habitat to the east (San Miguel Canyon), and habitat to the west (Arroyo Pescadero Canyon). Of the roads surveyed in a certain study, Harbor Boulevard and Colima Road had the highest frequency of roadkills (Elliott and Stapp, 2008, as cited in the DEIR, p. 4.2-25).

A portion of the underground oil and gas production pipelines and metering station would be located near the entrance to the Service Tunnel, which is an important region-wide linkage for terrestrial wildlife attempting to traverse Colima Road immediately east of the Project Site (DEIR, p. 4.2-54). It is expected that wildlife use of the Service Tunnel would be adversely affected by activities in the eastern portion of the Project area (DEIR, p. 4.2-54). WCCA is concerned with the construction and operation of the oil extraction facilities near the Service Tunnel, as well as the main drilling activities, which could cause wildlife to seek other at-grade crossings along Colima Road, leading to additional road kill (see Figure 4.2-5, Trails, Oil Field Roads, and Wildlife Roadkill Data).

Although the DEIR states (p. 4.2-53) that "...the proposed actions are not anticipated to substantially inhibit the bobcat and other larger mammal species' use of the La Cañada Verde watershed, either as a nursery site or as a movement corridor," the applicant nonetheless should voluntarily use this DEIR-concluded insubstantial impact as impetus to increase the overall mitigation package to benefit the regional habitat block.

The Project will result in potentially significant direct and indirect impacts to coastal California gnatcatchers, and their habitat, including Critical Habitat as designated by the United States Fish and Wildlife Service.

WCCA-3 Figure 4.2-3 in the DEIR (Observations of Listed Species and Species of Special Concern Within or Adjacent to the Site) shows how the Proposed Project boundary and the proposed North Access Road overlap with gnatcatcher occupied habitat. According to the DEIR (Table 4.2-3), the Project would result in permanent impacts to 4.16 acres, temporary impacts to 0.86 acre, and noise impacts to 5.49 acres of coastal sage scrub. Other vegetative plant communities would be permanently and temporarily impacted. The gnatcatcher regularly uses other habitats and shows seasonal and perhaps daily patterns in such use.[2]

The Project will result in significant, unmitigatable impacts to recreational resources in the Preserve.

WCCA-4 WCCA is concerned because the new drilling and operations would adversely affect public viewsheds in the Preserve and this impact would remain significant, even after mitigation (for example, see Figure 4.6-10).

In addition to permanent biological impacts such as direct loss of habitat, the Project will result in ongoing impacts, over a long period of time.

WCCA-5 During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species (DEIR, p. 4.2-53). These impacts, as well as vibrational impacts, would result from construction and operation of oil facilities, as well as substantial additional construction and operational vehicle traffic in the Preserve, compared with current conditions.

Requested Additional Voluntary Mitigation Measures for Impacts to Biological and Recreational Resources

Because of the sensitivity of the area and because of the environmental impacts identified in the DEIR, we urge the lead agency to incorporate the following voluntary measures.

---

[2]Campbell, K.F., R.A. Erikson, W.E. Haas, and M.A. Patten. 1998. California Gnatcatcher use of habitats other than coastal sage scrub: Conservation and management implications. Western Birds 29:421-43.

(1) Establish a guaranteed fund to acquire habitat connected to Regional Habitat Block

WCCA-6

Over the life of the project a minimum of $15,000,000 must be provided for additional habitat protection. Without deep understanding about the project's financial structure and uncertainty about both monetary inflation and the price of oil, it is difficult to lay out when the funding must be made available to public agencies for land acquisition. However, the current ecological viability of the Whittier-Puente Hills regional habitat block is priceless. WCCA proposes that $2.5 million be deposited once any permit other than permits for test wells have been issued. Five million dollars of additional funding would be deposited within one year of the release of the first payment. Every year thereafter on that anniversary date, the applicant would release $2.5 million to public agencies for land acquisition in areas prescribed in the FEIR. The prescribed acquisition area should be between Tonner Canyon and the western tip of the contiguous Whittier Hills habitat block.

This funding should be held in trust by a combination of the Habitat Authority and WCCA. If a deal can be struck on the Aera property all unallocated funding should be designated for such an acquisition. If such a deal is not struck, the Habitat Authority should receive 75 percent of the funding and WCCA 25 percent to allow for acquisitions located east of the Habitat Authority's jurisdiction. Neither agency should be allowed to spend the funding without demonstrated, publically disclosed written consultation with U.S. Fish and Wildlife Service and California Department of Fish and Game.

(2) Establish a guaranteed fund to maintain/manage habitat connected to Regional Habitat Block

WCCA proposes that $2 million be deposited for the management/maintenance of habitat between Tonner Canyon and the western tip of the contiguous Whittier Hills habitat block. The Habitat Authority should receive 75 percent of the funding and WCCA 25 percent. No later than three years after the issuance of any permit other than permits for test wells, $1 million should be deposited. No later than one additional year later, another $1 million should be deposited.

(3) Establish a guaranteed fund to restore habitat connected to Regional Habitat Block

In addition, a fund should be established for restoration within the Puente-Chino Hills wildlife corridor between Tonner Canyon and the western tip of the contiguous Whittier Hills habitat block. No later than one year after the issuance of any permit other than permits for test wells, $750,000 would be established in a fund for Habitat Authority to conduct habitat restoration. No later than three years after that, an additional $1 million would be deposited in the fund. This funding would be allocated solely to the Habitat Authority.

WCCA-7

(4) A wildlife movement study should be undertaken to address potentially significant wildlife movement impacts associated with the Project.

Because of the potentially significant impacts to wildlife movement, and especially to bobcats, in the Preserve and in the Puente-Chino Hills, a scientifically rigorous study should evaluate wildlife movement of bobcats and other wildlife prior to Project construction, and during implementation of the Project. Results from this study could serve as a study aid and guide for management of the open space once the project starts.

(5) Recreational activity should be managed in concert with the Project.

WCCA-8 The DEIR states that impacts from the Project could be partially mitigated by closing the Arroyo San Miguel trail that utilizes the tunnel to recreational use, at least during the most intensive activities, such as drilling or construction (DEIR, p. 4.2-54). This is proposed as a mitigation measure in the DEIR (BIO-4n, p. 4.2-60). Closing trails and restricting recreational access is not preferred. To avoid or minimize any closing of trails, WCCA recommends that one additional round culvert, 12-feet-wide, be provided along another location on Colima Road as mitigation for recreational use. This should be done within two years of the after the issuance of any permit other than permits for test wells. If the Colima Service Tunnel must be closed to recreational use, then it should be closed for a limited time period, i.e., six months, at the beginning of construction so animals can adjust to the new construction conditions.

It is critical that a measure be included in the California Environmental Quality Act document to provide additional funding for ranger patrol to manage existing and future recreational use, including dogs.

(6) There should be limitations on any extension of the oil lease.

WCCA-9 If the DEIR describes the project as a 30-year project, and the impacts are analyzed as such, then the project should in fact be no longer than 30 years. Our comments are calibrated based on a 30-year project. WCCA's recommended additional project measures reflect that timeframe. The ecological system cannot sustain much more, if the lease is extended beyond 30 years. There absolutely has to be a preserved core habitat in order to keep the Puente-Chino Hills wildlife corridor system viable.

To address this issue, the lease should not be allowed to be renewed unless the Aera property is completely acquired and preserved, including the establishment of at least a $2 million maintenance endowment. If the Aera property is acquired and preserved, then the oil lease should be limited to an additional 10-year maximum renewal.

(7) There should be additional construction timeframe limitations.

WCCA-10 Construction should be limited to weekdays only, and construction hours should be limited to 7 am to 5 pm to minimize impacts to recreational users (people) and wildlife. In addition, seasonal restrictions should be implemented to avoid the coastal California gnatcatcher nesting season for activities other than routine operations.

(8) Significantly more stringent wildfire prevention requirements should be integrated into the Project in order to reduce oil field wildfire risk.

WCCA-11 The types of operations proposed will increase the likelihood of wildfires because of the types of equipment used at an oil field. The region is currently suffering from too frequent wildfires; type conversions of plant communities are occurring faster than they are being restored. Stringent fire prevention regulations must be implemented and the same level of wildfire contingencies must be required as those for projects adjacent to State parks. The wildfire prevention measures should be employed during construction, maintenance, and normal operations. This is particularly important with welding equipment and there should be weather restrictions for welding equipment. A separate spotter must be present to monitor welding activities. Cold cutting techniques should be employed where feasible.

We appreciate your consideration of these comments. If you have any questions, please contact Judi Tamasi of our staff by phone at (310) 589-3230, ext. 121, or by email at judi.tamasi@mrca.ca.gov. Thank you for your consideration.

Sincerely,

Glenn Parker
Chairperson

Appendix M

Responses to Organizations' Comments

Whittier Main Oil Field Development Project
Revised Environmental Impact Report
Public Draft Comments
Organizations

David Magney Environmental Consulting

Comment #	Response
DMEC-1	The EIR preparers concur with the comment that the Preserve is important and the baseline conditions in the Draft EIR discuss the Core Habitat and the importance of the Core Habitat to wildlife nurseries.
DMEC-2	The EIR preparers concur with the comment that the Preserve is important for conserving viable populations in the Los Angeles Region; the Draft EIR baseline conditions (page 2.2-22) include a description of the Preserve's role in the greater Los Angeles area and discuss in detail the importance of the road crossing for wildlife species at Colima Road.
DMEC-3	The EIR preparers concur with the comment that the Coastal Sage scrub community in California is important, as is its role as habitat for the California gnatcatcher. The Draft EIR's baseline conditions (pages 2.2-4 and 2.2-18) include a description of the habitat and the importance to California gnatcatcher.
DMEC-4	The Draft EIR determined which species required discussion in the Draft EIR as follows: Consistent with interpretations of the California Environmental Quality Act (CEQA) used by the City of Whittier and most other lead agencies in the region, the Draft EIR treated all species listed as threatened or endangered, or formally recognized by the state as being California Species of Special Concern. The Draft EIR considered the "special-status" taxa mentioned in comments on the Notice of Preparation for the Project. We have also reviewed numerous biological reports prepared within the Chino-Puente Hills in recent years, the California Natural Diversity Data Base, California Native Plant Society Online Inventory of Rare and Endangered Plants, Consortium of California Herbaria online inventory. Finally, we have worked closely with the Habitat Authority and its ecologists to identify all taxa of concern to be considered in the Draft EIR. At the Habitat Authority's direction, several focused biological surveys were conducted on the Project Site by LSA Associates and Glenn Lukos Associates from 2007 through 2010. None of the resources reviewed suggested that bryophytes, lichens, shoulderband snails, or trapdoor spiders warrant specific consideration in this CEQA analysis. If the specific evaluation of these taxa was as central to the task of conserving biodiversity, as claimed in this comment letter, these taxa would have at least warranted *mention* in the Habitat Authority's own 2007 Resource Management Plan. Although these taxa do contribute to biodiversity, biological surveys and impact analyses considered appropriate and adequate under CEQA have typically involved the evaluation of vascular plants, vertebrates, and any butterflies or other lower taxa listed as threatened or endangered by state or federal governments (or that can otherwise "be shown to meet the criteria" specified in CEQA Section 15380). Non-listed invertebrates are sometimes evaluated, such as for projects with potential to affect roosting groves for monarch butterflies. Generally, however, CEQA analysis has stopped short of evaluating the lower taxa, in part due to a general lack of detailed knowledge about these taxa and their distributions — not only among consultants, but also among specialists. For these reasons, we do not agree with the commenter's characterization of the Draft EIR as being inadequate with respect to its focus on evaluating potential effects of Project implementation on the higher-level plants and wildlife that are recognized as having "special status" by state or federal agencies.

Comment #	Response
	Given that so little is known about the actual status and distribution of the lower taxa, and given that none of the species potentially present is listed as rare or endangered by federal or state agencies, or is recognized as a California Species of Special Concern, there is no clear basis for establishing the potential significance of any potential impacts to these taxa. If the commenters believe that such a basis exists for certain taxa possibly present on the Project Site, the procedure for establishing this is through peer-reviewed publication of their status and distribution, with recognition of their rare status by state and/or federal resource agencies — procedures well beyond the scope of CEQA analysis. Nevertheless, in the interest of providing a complete baseline and well-supported impact analysis, we have researched the known status, distribution, and habitat requirements of the taxa of concern to the commenters, and have worked with an entomologist, Dr. Emile Fiesler, to conduct a supplemental survey to search for these species. The Draft EIR biologists have evaluated the potential of the Project to result in potentially significant impacts to any additional species that can be shown to meet the criteria specified in CEQA Section 15380.
DMEC-5	Six species of "rare" moss, three of them known from Los Angeles County, are indicated in Los Angeles County preliminary checklist of Bryophytes. The three species of "rare" moss known from the County are: • *Bestia longipes*. According to the Bryophyte Flora of North America web site: "Forming large colonies over rock walls and boulders especially along streams in coastal mountains influenced by summer fog, infrequent on basal burls of broadleaf trees, especially (*Umbellularia*); moderate elevations; Calif." http://www.mobot.org/plantscience/bfna/V2/LembBestia.htm • *Didymodon australasiae*. According to Flora of North America web site: "Soil, gypsum, acid rock, ledges, sandstone, silt; moderate to high elevations (300-2000 m); Ariz., Calif., Colo., Nev., N. Mex., Oreg., Tex.; Mexico; Central America; South America; Europe; n, s Africa, Pacific Islands (New Zealand), Australia. http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242444204 • *Didymodon bistratosus*. Apart from records on the Iberian Peninsula and Turkey, this moss is known from "Seminole Hotsprings, in the central Santa Monica Mountains," where was found on a sandstone boulder in woodland dominated by coast live oak (*Quercus agrifolia*) and greenbark ceanothus (*Ceanothus spinosus*) and in association with California wood fern (*Dryopteris arguta*) and goldback fern (*Pentagramma triangularis*) (Zander, R. H., J. A. Jiménez, and T. Sagar. 2005. *Didymodon bistratosus* [Pottiaceae, Bryopsida] in the New World. Bryologist 108: 540-543.). Dr. Emile Fiesler has identified the two species of moss found during the supplemental field survey on February 8, 2011 as *Bryum argenteum* and *Didymodon vinealis*, cosmopolitan species that do not meet the criteria specified in CEQA Section 15380. Since any potentially significant adverse effects on moss taxa would be completely speculative, no such finding is warranted.
DMEC-6	Of the nine species of lichen included on the California Department of Fish and Game's *Special Vascular Plants, Bryophytes, and Lichens List*, only the splitting-yarn lichen (*Texosporium sancti-jacobi*) appears to have any potential for occurrence in the Whittier Hills. This species is limited to relatively undisturbed, flat, open areas with hardened soil, such as grasslands or openings in coastal sage scrub. Given the Project area's long history of oilfield operations, it seems likely that any grassy areas of the Project Site would have been too heavily disturbed to support this lichen. Nevertheless, this species was specifically searched for during a supplemental field

Comment #	Response
	visit conducted by Emile Fiesler and Robert Hamilton on February 8, 2011. Results were negative.
DMEC-7	The commenters state that the Draft EIR does not include an adequate discussion of potential special-status invertebrate species and there is no survey data on any invertebrate species within the Draft EIR. The commenters mention a blister beetle, *Meloe ajax* that is known from the Temecula area in southwestern Riverside County. The commenters also suggest, "It is entirely possible that one or more undescribed species of invertebrates, in particular, insects, occur in the Puente Hills." CEQA analysis is not intended to answer such speculative questions. Rather, CEQA analysis involves applying what is known or reasonably inferred from the existing body of scientific knowledge to the evaluation of a Project's anticipated effects upon biological resources. Were it known that *Meloe ajax* is a truly rare species (i.e., satisfying the criteria specified in CEQA Section 15380) that has reasonable chance of occurring on the Project Site, then CEQA analysis could properly evaluate the potential effects on *Meloe ajax*. It is well beyond the scope of CEQA, however, to answer the basic questions of whether this species occurs anywhere in the County of Los Angeles or in the Puente Hills, whether it is truly a rare species, or whether any undescribed insect species satisfying CEQA Section 15380 could potentially occur on the Project Site. Entomologist Emile Fiesler is familiar with the two species of *Apomastus* trapdoor spiders also mentioned in this comment. *Apomastus kristenae* and *A. schlingeri* are found in the Los Angeles basin. The Project site is located at the extreme southwestern border of the expected range for the northern *A. kristenae* population, and would be the only species potentially present on the site. *A. schlingeri* is found in the San Gabriel Mountains area and along the western coastal areas of Los Angeles County. During the supplemental field visit on February 8, 2011, Dr. Fiesler determined that no suitable habitat for these spiders exists in the area proposed for impacts.
DMEC-8	Of the four butterfly species identified in this comment, only the monarch is included on the Special Animals list. Nobody has observed monarchs roosting on the site, or suspects that they might do so because the site is presumably too far from the coast to provide suitable roosting habitat. A species of milkweed, *Asclepius californica*, has been recorded on the Project Site, but it is rather sparse there and could not support a "winter concentration" of monarchs. That some of the butterflies present, or potentially present, on the site are believed to be "declining" in the region does not imply that they warrant specific evaluation under CEQA. If their populations are truly of conservation concern, they should be identified as such by state or federal resource agencies and/or highlighted in relevant local planning documents, such as the Habitat Authority's 2007 Resource Management Plan. The species in question do not satisfy these criteria, and Project implementation would not impact extensive patches of host food plants for these species. Finally, the extensive restoration of degraded areas that is proposed as part of the Project can be expected to offset any potential adverse Project effects to native invertebrate populations associated with locally native plant species.
DMEC-9	In response to this comment, Emile Fiesler and Robert Hamilton reviewed Mr. Magney's Terrestrial Gastropods of Los Angeles County (Magney 2009), and searched for snails and slugs during the supplemental field visit on February 8, 2011. The results of this survey provide data on the gastropod taxa present on the Project site, and on habitat usage and relative population sizes. The surveyors found two non-native slugs, *Deroceras reticulatum* and *Milax gagates*; five individuals and one shell of the non-native decollate snail (*Rumina decollata*); and several shells and two live individuals of the non-native garden snail (*Helix aspersa*). The native Peninsular Range shoulderband snail (*Helminthoglypta_traskii traskii*), a California Special Animal, was present in several parts of the site. We found approximately 30 live individuals and 11 empty shells. Nearly half of the live snails were found beneath cut

Comment #	Response
	logs of non-native trees within the ruderal/grassland area in the southern part of the Project site. The associated plant species in the southern part of the survey area were all non-native: ripgut brome (*Bromus diandrus*), slender wild oat (*Avena barbata*), cheeseweed (*Malva parviflora*), dwarf nettle (*Urtica urens*), and Bermuda buttercup (*Oxalis pes-caprae*). The rest of the shoulderbands were found within coastal sage scrub habitat, often beneath downed wood from non-native trees, such as Peruvian pepper (*Schinus molle*) and eucalpytus (*Eucalyptus* sp.), that are scattered among the native scrub habitat. It is presumed that these snails occur throughout most of the site and local area, but are most readily found beneath downed wood, where conditions are relatively moist. That so many shoulderband snails were found in association with non-native features in areas of previous disturbance suggests that this taxon is not reliant upon relatively undisturbed native habitat for survival. The most recent iteration of the Special Animals List (January 2011) includes 20 species of *Helminthoglypta* (shoulderband) snail, an increase from the 18 species from this genus included in the 2009 iteration (per the comment). In general, very little is known about native terrestrial gastropods in California. Nevertheless, a number of species found in Los Angeles County are granted "critically imperiled" conservation status by the group NatureServe, "a non-profit conservation organization whose mission is to provide the scientific basis for effective conservation action" (http://www.natureserve.org/explorer/aboutd.htm). NatureServe rankings are the only conservation status indicated in the Special Animals list for many *Helminthoglypta* snails. The summary of records provided by Mr. Magney suggests that the range of the Peninsular Range shoulderband snail extends from San Diego County in the south to San Luis Obispo and Kern Counties in the north, but in correspondence with Dr. Fiesler, *Helminthoglypta* expert Dr. Barry Roth states: > . . . many of the records in those databases, as in museum collections generally, are incorrectly identified. Online catalogues are best regarded as guides to what one might find if one went to the institution and examined the specimens in person. For instance, here the Kern County records of [*H. traskii traskii*] all refer to localities for *Helminthoglypta uvasana* Roth & Hochberg, which prior to 1992 were identified as [*H. traskii traskii*] (and Pilsbry himself illustrated a specimen from Fort Tejon under H. traskii, as I recall). The San Luis Obispo County record from Oso Flaco Lake must refer to [other spp.] I have been there and sampled both. I doubt that the Santa Barbara County record is [*H. traskii traskii*]. Also not sure about the San Diego County localities; but I would simply repeat the caveat that museum collections and their registers contain many errors and outdated IDs. (The Kern County records I mentioned above were not "wrong" at the time they were made; the state of knowledge has simply advanced since then.). Based upon the known range of *Helminthoglypta traskii traskii*, as clarified by Dr. Roth, the Draft EIR biologists conclude that it may warrant consideration under CEQA, although it is not listed as threatened or endangered by federal or state resource agencies, is not identified as a California Species of Special Concern, and has not been shown to meet the criteria specified in CEQA Section 15380. We note that information on this and other members of this genus is limited and fragmentary, with relatively few reliable field studies having been conducted to determine the actual range, number and habitat requirements of the various taxa. Given this general lack of information, the limited area proposed for impacts within a much larger Preserve, and our direct observations of *H. traskii traskii* utilizing those parts of the survey area that have been most heavily impacted by past and ongoing development actions, we would consider it highly speculative to identify potentially significant impacts to this taxon

Comment #	Response
	associated with implementation of the Proposed Project.
DMEC-10	Such a wide-ranging assessment for a Project that proposes impacts to only a small fraction of the Preserve's overall area would greatly exceed the requirements of CEQA analysis.
DMEC-11	As noted on page 4.2-9, "LSA botanists concluded that rainfall patterns in both years [2008 and 2009] were conducive to detecting the target special status plant species during the survey periods." Since the qualified botanists conducting the surveys concluded that favorable growing conditions were, in fact, present during two consecutive years of surveys, the Draft EIR biologists are satisfied that special-status plant species may be reasonably be "considered absent" for the purposes of CEQA analysis. The commenters are correct, however, about the impossibility of proving a negative, and so the wording in Table 4.2-1 has been changed to "Potential for occurrence very low." The commenters recommend additional surveys "in order to clearly determine if special-status plants species exist in the Project footprint." But by the commenters' own logic, expressed in the preceding paragraph, these surveys would not "clearly determine" presence or absence (because absence cannot be proven). Two seasons of focused surveys conducted in accordance with the current CNPS Botanical Survey Guidelines under favorable growing conditions provide a more-than-adequate level of baseline data upon which to conduct CEQA analysis for the proposed Project. Since it is considered very unlikely that any special-status plant species were present but not observed, no significant impacts are identified and therefore no mitigation is required.
DMEC-12	The permanent impacts to coastal sage scrub habitat now require a ratio of 3:1 in mitigation measure mitigation measure BIO-1a. Commenter requests specification in terms of the nine possible types of coastal sage scrub habitats that would be disturbed. Of the nine sub-types of coastal sage scrub listed in Table 4.2-3, the best-represented sub-type is "Sage Scrub Restoration," which is not a naturally-formed association but one devised by a restoration specialist. Three other sub-types are proposed for no impacts or only trace levels (Mixed Sage Scrub/Grassland Ecotone, Sagebrush-Monkeyflower Scrub, and Purple Sage Scrub/Toyon-Sumac Chaparral). The remaining five sub-types are common sage-scrub associations dominated by such widespread shrub species as *Artemisia californica*, *Encelia californica*, *Salvia mellifera*, *Baccharis pilularis*, and *Eriogonum fasciculatum*. All of these species would undoubtedly be well-represented in the required coastal sage scrub restoration efforts. The mix of native species to be established at each restoration site should be made by the restoration specialist in cooperation with the Habitat Authority. The plant palettes would contain only locally native species, and should be tailored to the physical conditions at the restoration site (e.g., soils, aspect, hydrology) as well as the wildlife habitat values desired by Habitat Authority land managers at that location. Therefore, specific ratios are not being established for each sub-type impacted. Mitigation measure BIO-1a specifies that "restoration shall comply with the Habitat Authority's Restoration Guidelines" and has been modified in the Final EIR.
DMEC-13	An emergency response plan would be required as part of the permitting process. Mitigation measure FP-1d, in Section 4.12, Fire Protection and Emergency Response, requires the development and submittal of an emergency response plan. It is not required for the assessment of CEQA impacts. Mitigation measures WR-5c and WR-5d require the installation of leak detection systems and berms; mitigation measure SR-2a requires the installation of automatic shut-off valves; and mitigation measure SR-1b requires that audits be conducted against codes and standards. Reviews of the emergency response plan and response drills are requirements associated with federal requirements (such as 40 CFR Spill Prevention Control and Countermeasure Plans)

Comment #	Response
	and state requirements (Business Plan Program) that would be implemented if the Project is approved.
DMEC-14	The Project as proposed would proceed without the East Well Pad Site, so any potential wildlife movement impacts associated with the East Well Pad Site have been avoided.
DMEC-15	The commenters state the Draft EIR defines the impacts resulting from vibration to be "Significant and unavoidable" and does not address impacts to wildlife. However, page 4.2-53 of the Draft EIR states that: "the main cause of the vibrations measured in the soil surface near a drilling operation is the drill's action of rotation and cutting through the rock, and no measures are available to prevent these vibrations. Vibrations associated with drilling would vary over time. The highest vibration levels experienced by wildlife would most likely occur during the initial portion of drilling a well, during approximately the first 100 feet of drilling, and this would last a matter of hours when they are drilling close to the surface. The actual peak vibration levels during this period would be only for a sum total of a matter of minutes. One well would be drilled per month. Therefore, while it is possible that some wildlife in the vicinity of the drilling operation, such as bobcats, would experience anxiety due to vibrations produced during high-vibration periods, those periods would be rare and relatively short-lived, lasting for only a period of hours per month. The Draft EIR biologists conclude that this level of impact to wildlife from vibrations would be adverse, but less than significant."
DMEC-16	The commenters state, "Research on Bobcats (Riley, S.P.D. 2006. Spatial Ecology of Bobcats and Gray Foxes in Urban and Rural Zones of a National Park. *Journal of Wildlife Management* 70(5):1425-1435.) demonstrates that they avoid areas of human disturbance." The EIR biologists agree with the commenters on this broad point (see also Ordeñana, M. A., K. R. Crooks, E. E. Boydston, R. N. Fisher, L. M. Lyren, S. Siudyla, C. Haas, S. Harris, S. A. Hathaway, G. M. Turschak, A. K. Miles, and. D. H. Van Vuren. 2010. The effects of urbanization on carnivore species distribution and richness. *Journal of Mammalogy* 91:1322-1331.). Page 4.2-42 of the Draft EIR states, "During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. These represent potentially significant adverse effects upon wildlife populations in the Preserve. These indirect impacts to wildlife typically are not quantified beyond the extent of habitat removal due to the high variability of certain species' response to increased noise, lighting, and human presence in different seasons, habitat types, and topography. Research indicates that bobcats are among the species known to avoid urban edges." The commenters state, "Without the ecological function of Core Habitat in the Preserve buffering them from human disturbance, it is possible that Bobcats and other wildlife species sensitive to human disturbance would not be able to reproduce in the Puente Hills region. In this event, viable populations of these species would disappear from the Puente Hills region." The research on bobcats does not support such a conclusion. For example, Ordeñana and colleagues found bobcats at 74% of "camera traps" (161 of 217) spread across 11 locations in coastal southern California, and they stated, "Coyotes and bobcats were distributed widely across southern California, suggesting their behavioral plasticity and adaptability relative to other large carnivore species." Their Figure 2, a logistic regression model plotting "probability of occurrence" against "distance to urban edge," shows that the probability of bobcat occurrence decreases from approximately 80% at 1500 m from the edge to

Comment #	Response
	approximately 70% at the urban edge itself. This moderate negative response of bobcats to urbanization does not support the commenters' suggestion that the proposed actions may be anticipated to result in a dramatic change in the bobcat's use of the La Cañada Verde watershed as a whole. It is also relevant to consider that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, without resulting in a permanent significant adverse effect on the local bobcat population. The potential impacts of Project implementation on bobcats would be adverse, but less than significant with provision of the required mitigation measures. See also response to comment DMEC-15, which re-evaluates the Project's contribution to cumulatively considerable noise impacts on wildlife.
DMEC-17	The Landfill Road is currently discussed as part of the Proposed Project. The Landfill Road provides access through the Landfill and onto the Preserve through the North Access Road, which is an existing road that was used for oil operations for many years until the early 1990s. Traffic impacts on the North Access Road are discussed in the Draft EIR, which states that the proposed Project would contribute an average additional 24 vehicles per day during operations and up to 51 vehicles per day during construction. This additional Project-related traffic would stay within historical traffic levels along the roads that currently access the Landfill through Penn Street. The analysis of traffic impacts on wildlife species is addressed in mitigation measure BIO-4c which requires speed limits, speed bumps, and a limit on night driving. In addition, a wildlife monitor is required under mitigation measure BIO-l and biological training program under mitigation measure BIO-4k. Wildlife movement concerns are discussed in impact BIO.4. The Draft EIR biologists disagree with the commenters' suggestions of potentially dire ecological consequences resulting from this low level of well-regulated traffic on an existing roadway. It is our conclusion that any such consequences would have occurred long ago, when the North Access Road was originally built and operated for many years without the biological mitigations that would now be required.
DMEC-18	In response to the concerns expressed in this comment and others concerning the potential adverse effects of noise on wildlife populations, the Project biologists have conducted additional analysis, including review of additional scientific studies, including review of the following articles from the scientific literature: • Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. Trends in Ecology and Evolution 25:180-189. • Fuzessery, Z. M., P. Buttenhoff, B. Andrews, and J. M. Kennedy. 1993. Passive sound localization of prey by the pallid bat (*Antrozous p. pallidus*). Journal of Comparative Physiology A 171:767-777. • Dooling, R. J., and A. N. Popper. 2007. The Effects of Highway Noise on Birds. Report prepared by Environmental BioAcoustics LLC for The California Department of Transportation, Division of Environmental Analysis, Sacramento, CA. http://www.caltrans.ca.gov/hq/env/bio/files/caltrans_birds_10-7- 2007b.pdf • Bayne, E. M., L. Habib, and S. Boutin. 2008. Impacts of chronic anthropogenic noise from energy-sector activity on abundance of songbirds in the boreal forest. Conservation Biology 22:1186-1193. • Schaub, A., J. Ostwald, and B. M. Siemers. 2008. Foraging bats avoid noise. Journal of Experimental Biology 211:3174-3180. • Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes

Comment #	Response
	avian communities and species interactions. Current Biology 19:1415-1419. As summarized by Barber and colleagues, "Chronic noise exposure is widespread. Taken individually, many of the papers cited here offer suggestive but inconclusive evidence that masking is substantially altering many ecosystems. Taken collectively, the preponderance of evidence argues for immediate action to manage noise in protected natural areas." The evaluation of potential noise impacts upon wildlife is confounded by varying and oppositional responses of different species to chronic noise. For example, the study by Francis and colleagues, found that "noise can have an indirect positive effect for individuals nesting in noisy areas" resulting from a decrease in nest predation due to avoidance of noisy areas by the Western Scrub-Jay, a major nest-predator. Nevertheless, their study also found that most bird species responded negatively to noise (e.g., three species nested only in loud sites and 14 species nested only in quiet, control sites). Their study provided "the strongest evidence to date that noise negatively influences bird populations and communities, and acoustic masking may be a dominant mechanism precluding many birds from breeding in noisy habitats." Another important study, by Bayne and colleagues, found that areas near noiseless energy facilities had a total passerine density 1.5 times higher than areas near noise-producing energy sites. Among bats, Fuzessery et al. found that the pallid bat relies upon prey-generated movement sounds to localize its terrestrial prey. The later study by Schaub and colleagues, which focused on another gleaning bat, the greater mouse-eared bat, concluded, "Our experimental data suggest that foraging areas very close to highways and presumably also to other sources of intense, broadband noise are degraded in their suitability as foraging areas for such 'passive listening' bats." In Irvine, Orange County, LSA Associates conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: > Although it is difficult to directly relate the effects of noise on breeding birds, no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity) as evidenced by the number of California Gnatcatchers and least Bell's vireos remaining in this area. In fact, in 2000, a least Bell's vireo pair successfully nested in the portion of Bonita Reservoir that was nearest to the construction activity (p. 17). The following summary is contained in the Birds of North America species account for the California Gnatcatcher (Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher [*Polioptila californica*]. The Birds of North America Online [A. Poole, ed.]. Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/574): > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A.

Comment #	Response
	Erickson unpubl., D.R. Bontrager). Of 91 nests found at heavily used state park, 13% were <3 m from paved roads or trails; no evidence that such nests failed more frequently than those in less disturbed sites (Miner, K. L., A. L. Wolf, and R. L. Hirsch. 1998. Use of restored coastal sage scrub habitat by California Gnatcatchers in a park setting. West. Birds 29:439-446.). Figures 4.5-6 and 4.5-8 in the Draft EIR indicate the "maximum hour noise contours" for the proposed Project during operations, after noise mitigations are applied. These figures show that required mitigation measures would generally reduce noise in the Project area to levels between 40 and 60 dBA, although levels up to 70dBA are expected in zones extending up to approximately 200 feet from the edges of drilling pads. Noise levels below the level of 60 dBA are not expected to be adverse. The limited area where levels are expected to increase to 60-70 dBA may be avoided by the most sound-sensitive species, such as the pallid bat. Noise from trucks and periodic clanging of equipment would be in addition to the ongoing, low-level noise represented in Figures 4.5-6 and 4.5-8. As discussed on page 4.2-47 of the Draft EIR, "noise negatively influences bird populations and communities, and acoustic masking may be a dominant mechanism precluding many birds from breeding in noisy habitats" (Barber et al. 2009). The temporary impacts to sensitive nesting habitats resulting from construction and drilling noise would be offset by a 1:1 habitat replacement ratio. Bobcats were not found in apparently suitable riparian habitat near the existing Applicant Oil drilling pad in lower Sycamore Canyon(Habitat Authority Comment letter), approximately 3.5 miles northwest of the Project Site. Unlike the drilling operation currently proposed, that existing drilling operation does not include any sound mitigations, and it is much noisier than what is being proposed in the La Cañada Verde watershed. As stated in the analysis of cumulative impacts on page 4.2-50, "The cumulative projects (see Section 3.0, Cumulative Projects Description) would result in increased infill of open areas, increased human presence, and temporary and permanent loss of habitat in the general area that is already under extreme pressure from surrounding residential and urban areas." After consideration of all relevant information, including the additional data and interpretations provided in this and other comment letters on the Draft EIR, the Draft EIR biologists conclude that increased noise associated with the proposed Project and all alternatives would represent a cumulatively considerable increase in the level of noise in the Preserve. Impacts and mitigation measures have been added to Section 4.2, Biological Resources, to address the cumulative impacts by applying mitigation to the Sycamore Canyon facilities operated by Matrix to reduce biological impacts in that area and to prevent simultaneous test-drilling, construction, or redrilling of wells construction work on the Tehachapi Renewable Transmission Project. This action, taken as part of the Project currently being proposed, would substantially reduce ongoing noise impacts to wildlife populations in the local area due to oil drilling, effectively mitigating the Project's cumulatively considerable contribution to noise impacts in the Whittier Hills. In addition, text has been added to mitigation measure BIO-4a in the Final EIR. And the discussion of residual impacts of impact BIO.4 has been modified.
DMEC-19	Selection of the Landfill Road as the preferred access route was not determined by the level of impacts to biological resources. The alternatives analysis determined that traffic impacts associated with a possible Catalina Avenue access road would be unacceptably high, and that this does not represent a feasible alternative. Section

Comment #	Response
	5.1.3.3 originally stated that using the Landfill Road could reduce biological resource impacts relative to the Proposed Project. The text has been changed in Section 5.1.3.3 to now state: "the Landfill Road is located in the Core Habitat of the Preserve which currently has minimal disturbances. Use of this access road, especially by large trucks, would increase noise levels in the Core Habitat area, and would otherwise increase pressure on an already constricted wildlife movement corridor; therefore, the overall effect would be an increase in impacts to biological resources."

Friendly Hills Property Owners Association

Comment #	Response
FHPOA-1	The City of Whittier General Plan was adopted in 1993 and is the most current guiding document for future growth and development within the incorporated area of the City. That said, as stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. However, note that the Draft EIR policy consistency analysis is preliminary. The decision makers will weigh the compatibility of the Project with the goals and policies of the General Plan in their consideration of the Project.
FHPOA-2	The proposed Project proposes to allow trucks on Catalina Avenue and Mar Vista Street only for the first phase of the Project and the first portion of the construction phase. Construction of the facilities would utilize an existing, unimproved roadway that would pass through the Savage Canyon Landfill and utilize Penn Street. Penn Street currently operates at an acceptable level of service.
FHPOA-3	A sound wall is proposed as mitigation around elements of the facilities, in addition to an earthen berm located to the south and east of the facilities, to mitigate views.
FHPOA-4	A quiet mode of drilling is required during the night hours as described in mitigation measure N-2b in Section 4.5, Noise and Vibration. Drilling is required to be continuously operated as each well is drilled. Mitigations for noise and air pollution are included to reduce noise and air pollution to below thresholds levels. Electric drilling rigs are included as an option in the mitigation measures along with either offsets or tier 4 engines to reduce NOx emissions.
FHPOA-5	Moving operations deeper into the Canyon would reduce impacts to residences, but further exacerbate impacts to biological resources. The Project attempts to strike a balance between these two competing impacts. Note that the alternative of drilling in Canada Canyon was rejected due to biological impacts.

Gabrielino Band of Mission Indians

Comment #	Response
GBMI-1	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to cultural resources accidentally discovered.
GBMI-2	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to cultural resources accidentally discovered.

Gabrielino Indians

Comment #	Response
GI-1	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to cultural resources accidentally discovered.

Hills For Everyone

Comment #	Response
HFE2-1	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan, but would not produce significant impacts with the implementation of mitigation required by the California Environmental Quality Act (CEQA). The CEQA Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. The City of Whittier General Plan was adopted in 1993 and is the most current guiding document for future growth and development within the incorporated area of the City. That said, comprehensively, the Project, as mitigated, is found to be consistent with the goals and policies of the City of Whittier General Plan as extensively detailed in the EIR. Further, the Project is also consistent with the City's zoning ordinance as oil and gas production is allowed in all zones (including the Open Space Zone) with a Conditional Use Permit (Section 18.52.030).
HFE2-2	The City of Whittier General Plan was adopted in 1993 and is the most current guiding document for future growth and development within the incorporated area of the City. That said, comprehensively, the Project, as mitigated, is found to be consistent with the City of Whittier General Plan as extensively detailed in the EIR. Further, the Project is also consistent with the City's zoning ordinance as oil and gas production is allowed in all zones (including the Open Space Zone) with a Conditional Use Permit (Section 18.52.030).
HFE2-3	The City of Whittier General Plan was adopted in 1993 and is the most current guiding document for future growth and development within the incorporated area of the City. That said, comprehensively, the Project, as mitigated, is found to be consistent with the City of Whittier General Plan as extensively detailed in the EIR. Further, the Project is also consistent with the City's zoning ordinance as oil and gas production is allowed in all zones (including the Open Space Zone) with a Conditional Use Permit (Section 18.52.030).
HFE2-4	The City of Whittier General Plan was adopted in 1993 and is the most current guiding document for future growth and development within the incorporated area of the City. That said, comprehensively, the Project, as mitigated, is found to be consistent with the City of Whittier General Plan as extensively detailed in the EIR. Further, the Project is also consistent with the City's zoning ordinance as oil and gas production is allowed in all zones (including the Open Space Zone) with a Conditional Use Permit (Section 18.52.030).However, note that the decision makers will weigh the compatibility of the Project with the goals and policies of the General Plan in their consideration of the Project.

Comment #	Response
HFE2-5	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan, but would not produce significant impacts with implementation of mitigation required by the California Environmental Quality Act (CEQA). The CEQA Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. The City of Whittier General Plan was adopted in 1993 and is the most current guiding document for future growth and development within the incorporated area of the City. That said, comprehensively, the Project, as mitigated, is found to be consistent with the City of Whittier General Plan as extensively detailed in the EIR. Further, the Project is also consistent with the City's zoning ordinance as oil and gas production is allowed in all zones (including the Open Space Zone) with a Conditional Use Permit (Section 18.52.030).
HFE2-6	The commenter asserts that the City's Zoning Ordinance is inconsistent and that oil and gas exploration is not allowed in the Open Space Zone. However, as stated in Section 4.11, the Project is found to be consistent with the City's Zoning Ordinance as oil and gas exploration is allowed in all zones (including the Open Space Zone) with a Conditional Use Permit. Please see Section 18.52.030 of the City's Zoning Ordinance.
HFE2-7	Oil and gas exploration and production is allowed with a Conditional Use Permit in as the Open Space Zone. Please see Section 18.52.030 of the City's Zoning Ordinance. Additionally, the EIR devotes an extensive number of pages to documenting the Project's consistency with the goals and policies of the City's General Plan. As mitigated, the Project is fully consistent with both the City's General Plan and the City's Zoning Ordinance. Mitigation measures identified in Final EIR Sections 4.1 Air Quality, 4.5 Noise and Vibration, 4.6 Aesthetics and Visual Resources, and 4.14 Recreation, would minimize impacts and provide a pathway toward a natural balance between the various resources in the proposed Project area. Therefore, the City would be able to make the findings necessary to approve a conditional use permit for the proposed Project. However, note that the decision makers will weigh the compatibility of the Project with the goals and policies of the General Plan in their consideration of the Project.
HFE2-8	The comment states the inclusion of an inadequate Project Description for meaningful public review in the Draft EIR. The EIR preparers agree that an adequate Project Description is the foundation for being able to conduct adequate environmental review and believe that this EIR contains an adequate Project Description for that purpose. The Draft EIR biologists disagree that the Draft EIR understates the importance of the Project's environmental setting. The Draft EIR already acknowledges in numerous places that the habitat near the Project area provides a critical resource for biological resources in the general area.
HFE2-9	The Draft EIR contains a thorough discussion of the existing baseline of environmental resources, including potential sensitive or endangered species. The Draft EIR relies on extensive and recent surveys that have been conducted of the site by the Habitat Preserve in the course of their restoration efforts at the site. The preparers of the biological resource section did not restrict their review to the sensitive resources in the immediate Project vicinity. The RMP and data collected from several biological technical reports that were prepared for the general area including the CNDDB search.
HFE2-10	Consistent with interpretations of CEQA used by the City of Whittier and most other lead agencies in the region, the Draft EIR treated all species listed as threatened or

Comment #	Response
	endangered, or formally recognized by the state as being California Species of Special Concern. In making our evaluations, the Draft EIR biologists have considered the "special-status" taxa mentioned in comments on the Notice of Preparation for the Project. We have also reviewed numerous biological reports prepared within the Chino-Puente Hills in recent years, the California Natural Diversity Data Base, California Native Plant Society Online Inventory of Rare and Endangered Plants, Consortium of California Herbaria online inventory. Finally, we have worked closely with the Habitat Authority and its ecologists to identify all taxa of concern to be considered in the Draft EIR. At the Habitat Authority's direction, several focused biological surveys were conducted on the Project Site by LSA Associates and Glenn Lukos Associates from 2007 to 2010. None of the resources reviewed by the Draft EIR biologists, and no input received from the Habitat Authority, suggested that bryophytes, lichens, or butterflies warrant specific consideration in this CEQA analysis. If the specific evaluation of these taxa was as central to the task of conserving biodiversity, as claimed in this comment letter, these taxa would have at least warranted *mention* in the Habitat Authority's own 2007 Resource Management Plan. Although these taxa do contribute to biodiversity, biological surveys and impact analyses considered appropriate and adequate under CEQA have typically involved the evaluation of vascular plants, vertebrates, and any butterflies or other lower taxa listed as threatened or endangered by state or federal governments (or that can otherwise "be shown to meet the criteria" specified in CEQA Section 15380). Non-listed invertebrates are sometimes evaluated, such as for projects with potential to affect roosting groves for monarch butterflies. Generally, however, CEQA analysis has stopped short of evaluating the lower taxa, in part due to a general lack of detailed knowledge about these taxa and their distributions — not only among consultants, but also among specialists. For these reasons, we do not agree with the commenter's characterization of the Draft EIR as being inadequate with respect to its focus on evaluating potential effects of Project implementation on the higher-level plants and wildlife that are recognized as having "special status" by state and/or federal agencies. Given that so little is known about the actual status and distribution of the lower taxa, and given that none of the species potentially present is listed as rare or endangered by federal or state agencies, or is recognized as a California Species of Special Concern, there is no clear basis for establishing the potential significance of any potential impacts to these taxa. If the commenters believe that such a basis exists for certain taxa possibly present on the Project Site, the procedure for establishing this is through peer-reviewed publication of their status and distribution, with recognition of their rare status by state and/or federal resource agencies — procedures well beyond the scope of CEQA analysis. Nevertheless, in the interest of providing a complete baseline and well-supported impact analysis, we have researched the known status, distribution, and habitat requirements of the taxa of concern to the commenters, and have worked with an entomologist, Dr. Emile Fiesler, to conduct a supplemental survey to search for these species. The Draft EIR biologists have evaluated the potential of the Project to result in potentially significant impacts to any additional species that can be shown to meet the criteria specified in CEQA Section 15380. Of the four butterfly species identified in this comment, only the monarch is included on the Special Animals list. Nobody has observed monarchs roosting on the site, or suspects that they might do so because the site is presumably too far from the coast to provide suitable roosting habitat. A species of milkweed, *Asclepius californica*, has been recorded on the Project Site, but it is rather sparse there and could not support a

Comment #	Response
	"winter concentration" of monarchs. That some of the butterflies present, or potentially present, on the site are believed to be "declining" in the region does not imply that they warrant specific evaluation under CEQA. If their populations are truly of conservation concern, they should be identified as such by state or federal resource agencies. The species in question do not satisfy these criteria, and Project implementation would not impact extensive patches of host food plants for these species. Finally, the extensive restoration of degraded areas that is being proposed as part of the Project can be expected to offset any potential adverse Project effects to native invertebrate populations associated with locally native plant species.
HFE2-11	The Draft EIR identifies mitigation measures that the Draft EIR preparer and Lead Agency consider adequate, under CEQA, to reduce the project's impacts and potential impacts to the California gnatcatcher to a level less than significant. In addition, mitigation measure BIO-1d specifies that the Project proponent shall consult with the USFWS to ensure compliance with the federal Endangered Species Act. During the required consultation, the USFWS free to determine what would be required to achieve compliance with federal law, and the Project proponent would be required to follow this guidance in order to comply with both federal law and CEQA (since mitigation measure BIO-1d specifies that the Project proponent shall obtain an Incidental Take Statement, if the USFWS determines that this is necessary). The Draft EIR's evaluation of potential noise impacts – and potential impacts upon California gnatcatchers specifically – is based upon review of the current relevant literature. As noted in the Draft EIR, a five-year study of the potential effects of construction upon California gnatcatchers and least Bell's vireos concluded that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor." The Draft EIR also included the following summary from the Birds of North America species account for the California gnatcatcher: > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). These findings indicate that California gnatcatchers have a relatively high tolerance for noise, and the commenter has not provided any contrary evidence to support the assertion that the Draft EIR failed to take into account the increased volume of traffic on the North Access Road during the Project's construction phase
HFE2-12	Commenter states that the Draft EIR fails to adequately describe impacts to sensitive species and describes the analysis, with no evidentiary support, dismisses impacts to these species, stating that they have limited potential to occur or that they are widespread in the region. Impacts to non-listed sensitive species are included in the discussion in impact BIO.1. Evidence is presented in Tables 4.2-1 and 4.2-2 describing each of these sensitive species' habitat requirements and likelihood of being present in the Project area. This information, as described in text, is based on a review of numerous biological reports prepared within the Chino-Puente Hills in recent years, the California Natural Diversity Data Base, California Native Plant Society Online Inventory of Rare and Endangered Plants, Consortium of California Herbaria online inventory. Finally, we have worked closely with the Habitat Authority and its ecologists to identify all taxa of concern to be considered in the Draft EIR, all of which acted as support to the results of the impact discussion.
HFE2-13	The Draft EIR includes evidence presented in Tables 4.2-1 and 4.2-2 describing each of these sensitive riparian species' habitat requirements and likelihood of being present in the Project area. This information, as described in text, is based on a review of

Comment #	Response
	numerous biological reports listed in the response to Comment HFE-12. Most of the sensitive bird species described as riparian species (yellow warbler, least Bell's vireo, and southwestern wouldow flycatcher) are typically associated with wouldow and mulefat scrub in southwestern California, but the expansive bottomland conditions they prefer are not present in the Preserve. For those species actually expected to nest on site (such as yellow breasted chat and Nuttall's woodpecker) the total amount of habitat that would be disturbed (approximately 0.25 acres of riparian habitat) is so small compared to the amount of available habitat that it makes the actual potential impact to this species negligible. In addition, the Draft EIR requires a replacement ratio of 3:1 acres of riparian restoration and it also takes into account a 1:1 replacement ratio for noise related impacts to the habitat. The mitigation required for the loss of habitat due to removal and noise impacts adequately reduces the impacts to these non-listed sensitive species.
HFE2-14	Commenter states that the Draft EIR focused bat impacts to occupied maternity roosts and ignored the loss of roosting and foraging habitat. Impact BIO.4g requires a qualified bat specialist to conduct a survey for trees that could "provide *hibernacula* or nursery colony roosting habitats for bats." The loss of habitat for species that only occasionally use the area for foraging is included in the impact discussion under BIO-1: "The remaining "special status" species in Table 4.2-2 either have only limited potential for occurrence on the Project Site or are "California Special Animals" that are widespread in the Puente-Chino Hills and elsewhere in the region. Impacts to these species are considered to be potentially adverse, but less than significant and therefore do not require any additional mitigation. The mitigation proposed for impacts to biological resources, including habitat replacement (BIO-1 and 2); minimizing noise impacts (BIO-4a); designing Project lighting to be shielded and directed away from open space areas (BIO-4b); reducing speed limits and night driving (BIO-4c); installing native screening around the existing wildlife corridors (BIO-4h); requiring a biological monitor onsite during ground disturbance activities to ensure protection measures are being implemented (BIO-4k); and implementing a biological resources training program (BIO-4l) would all reduce impacts to bat species.
HFE2-15	Commenter states that the Draft EIR did not include the loss of foraging habitat and roost sites for raptors and other non-migratory birds. The loss of habitat for species that are known to use the area that would be disturbed is included in the impact discussion under the general discussion in Section 4.2.4: "Additional impacts to biological resources, including new and increased usage of the roads and disturbances from noise, lighting, and increased human presence, would also cause avoidance of an area and would affect movement." In addition, most of the raptor and other migratory bird species expected or known on to forage over the Project Site are common, widespread, and/or have large home ranges. Due to the small acreage of habitat loss in relation to the available foraging habitat impacts to these species are considered to be potentially adverse, but less than significant and therefore do not require any additional mitigation. The mitigation proposed for impacts to biological resources, including habitat replacement (BIO-1 and 2); minimizing noise impacts (BIO-4a); designing Project lighting to be shielded and directed away from open space areas (BIO-4b); reducing speed limits and night driving (BIO-4c); installing native screening around the existing wildlife corridors (BIO-4h); requiring a biological monitor onsite during ground disturbance activities to ensure protection measures are being implemented (BIO-4k); and implementing a biological resources training program (BIO-4l) would all reduce impacts to raptors and migratory birds.
HFE2-16	The Draft EIR biologists do not agree that the Draft EIR understated impacts to Core Habitat and wildlife nursery sites within the Preserve. However, the Draft EIR biologists do believe that the research on bobcats suggests that bobcats are more adaptable than the commenter suggests. For example, Ordeñana et al (referenced in text) found bobcats at 74% of "camera traps" (161 of 217) spread across 11 locations in coastal southern California, and they stated, "Coyotes and bobcats were distributed

Comment #	Response
	widely across southern California, suggesting their behavioral plasticity and adaptability relative to other large carnivore species." Their Figure 2, a logistic regression model plotting "probability of occurrence" against "distance to urban edge," shows that the probability of bobcat occurrence decreases from approximately 80% at 1500 m from the edge to approximately 70% at the urban edge itself. This moderate negative response of bobcats to urbanization does not support the commenters' suggestion that the proposed actions may be anticipated to result in a dramatic change in the bobcat's use of the La Cañada Verde watershed as a whole. The Draft EIR language has been changed to reflect the comment: "It is also relevant that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, and wildlife species including bobcat continue to use, or have returned to the area to use, the resources that are currently present in the Preserve. For these reasons, the proposed actions are not anticipated to result in a long-term impact to that habitat that would substantially inhibit the bobcat and other larger mammal species' use of the La Cañada Verde watershed, either as a nursery site or as a movement corridor. It is concluded that the Project's potential impacts on bobcats and other wildlife species would be adverse, but less than significant with provision of the required mitigation measures." The point that was trying to be made describing prior drilling activities of the Project Site was that those activities did not result in a permanent loss of suitable habitat for sensitive and other wildlife species as evidenced by the fact that bobcats are currently present in the area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that the Draft EIR biologists conclude that 30 more years of limited drilling as proposed, with mitigation, would not have the dramatic level of impact upon bobcats suggested by the commenter.
HFE2-17	The Draft EIR did not ignore residual effects. The Draft EIR proposes measures to offset these impacts. The rational for requiring a 3:1 replacement ratio for loss of sensitive coastal sage scrub habitat takes these residual impacts and the edge effect into consideration as stated in the EIR: "The proposed mitigation included in this analysis requires 3:1 replacement for impacts to riparian habitat because: (1) the habitat loss would be within a habitat preserve, with existing habitat values and the sensitivity of this location in terms of being well-buffered against human intrusions and other constraints from surrounding development; (2) impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" cannot be completely eliminated through mitigation; (3) temporal losses would occur before the restoration efforts provide functioning habitat; and (4) ecological systems already under stress from surrounding intensive development exhibit a compromised capacity to rebound from disruptive processes, such as fire and human intrusion." In addition, the Draft EIR requires a 1:1 replacement ratio for habitat that is affected by noise which is included as an offset to the edge effect of noise impacts.
HFE2-18	The Draft EIR includes mitigation in the form of (1) habitat replacement; (2) mitigation suggested by the Habitat Authority (closing the Service Tunnel during drilling operations); (3) reducing noise impacts at the other Matrix drilling operation in Sycamore Valley; (4) adding mitigation measure CUMULATIVE BIO-3 which requires the applicant to fund a multi-year research study; and (5) preventing simultaneous test-drilling, construction, or redrilling of wells during construction work on the Tehachapi Renewable Transmission Project. These measures, taken as part of

Comment #	Response
	the Project currently being proposed, would substantially reduce ongoing impacts to wildlife movement in the local area. In addition, Project implementation would also contribute funding for the Habitat Authority's management and restoration activities within the Preserve, enabling the implementation of local land-protection policies that would otherwise be expected to be unfunded or underfunded which would also reduce impacts to wildlife movement. Therefore, requiring additional mitigation as recommended in this comment would be beyond the scope of what CEQA requires based upon the Draft EIR biologists' analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources.
HFE2-19	The Draft EIR followed the guidelines published by the CARB and the Federal EPA in developing GHG emissions estimates. The SCAQMD thresholds were utilized to estimate the levels of significance associated with GHG emissions and to prescribe mitigation measures. CARB, the Federal EPA nor SCAQMD address black carbon in their GHG protocols.
HFE2-20	Mitigation measure AQ-4 related to GHG mitigation requires tracking and reporting of GHG emission levels and, if the level exceeds the SCAQMD thresholds, a reduction program be implemented thereby reducing the emissions levels below the threshold. Tracking and reporting of offsets or reductions is also required. Several program elements are included, including purchasing offsets from the California Climate Reserve, utilizing the SCAQMD regulation XXVII, and with an emphasis on on-site and local projects. This program is not deferral of mitigation as the Draft EIR identifies the impacts (significant and unavoidable) and implementation of the program would not change that determination of the level of impact and it prescribes measures to implement if the program identifies GHG emissions exceeding the thresholds.
HFE2-21	The most effective methods for reducing GHG emissions would be to reduce the GHG emissions at the Project Site through efficiency and other methods. By requiring the Applicant to quantify GHG emissions and to reduce them, this is an incentive for the Applicant to utilize more efficient systems. Mitigation AQ-4 requires both onsite and offsite mitigation, if necessary. If onsite reduction cannot be achieved, there are numerous community-wide projects that could be developed that would allow for a substantial reduction in GHG that could more than offset the Project emissions. However, it is premature at this point to develop relationships and commitments with other agencies, such as MTD, related to this Project. Nevertheless, the mitigation imposed to reduce GHG emissions impacts is adequate under CEQA.
HFE2-22	Section 4.2.6 discusses the cumulative project list provided in Section 3.0 and provided details of specific projects. Cumulative biological impacts require: (1) reducing noise impacts at the other Matrix drilling operation in Sycamore Valley; (2) preventing simultaneous test-drilling, construction, or redrilling of wells during construction work on the Tehachapi Renewable Transmission Project; and (3) adding recommended Cumulative mitigation measure BIO-3 which requires the Applicant to fund a multi-year research study on wildlife movement. Trenching would require approximately 800 feet of trenching, which could be conducted along the area that would be disturbed associated with the installation of temporary power poles. This area of disturbance was included in the area calculations presented in section 4.2, Biological Resources. Section 4.3.5 states that "This disturbance would be located exclusively in disturbed and non-native grassland habitats and would not increase the severity of existing impacts" and is therefore addressed in the DEIR.
HFE2-23	Cumulative impacts to biological resources including habitat loss are discussed in over

Comment #	Response
	three pages of details starting on Page 4.2-64 of the Draft EIR contrary to what was stated in the comment. As stated in the analysis of cumulative impacts on Page 4.2-50, "The cumulative projects (see Section 3.0, Cumulative Projects Description) will result in increased infill of open areas, increased human presence, and temporary and permanent loss of habitat in the general area that is already under extreme pressure from surrounding residential and urban areas." Impacts and mitigation measures have been added to Section 4.2, Biological Resources, to address the cumulative impacts by applying mitigation to the Sycamore Canyon facilities operated by Matrix to reduce biological impacts in that area and to prevent simultaneous test-drilling, construction, or redrilling of wells construction work on the Tehachapi Renewable Transmission Project. In addition, the Draft EIR provides a new recommended mitigation measure, Cumulative BIO-3 which requires the Applicant to fund a multi-year research project which will aid Land Managers in managing issues on wildlife movement issues.
HFE2-24	The Draft EIR does not conclude that the proposed Project and other contributing projects each mitigate their own impacts then therefore there are no subsequent cumulative impacts. The Draft EIR proposes a number of additional cumulative mitigation measures including those listed in Biological Resources, section 4.2.6, and states that the implementation of these measures would reduce these cumulative impacts to less than significant.
HFE2-25	The Draft EIR biological cumulative analysis does not only address impacts resulting from Project related noise. Cumulative mitigation measures BIO-1 and BIO-3 also address wildlife corridor impacts, and increased human presence.
HFE2-26	All air emissions are cumulative impacts, almost by definition, but in general, air quality impacts of a Project are not discussed under the cumulative section. They are discussed in the impacts section. Cumulative impacts of GHG are determined to be less than significant if they fall below the South Coast Air Quality Management District prescribed threshold values. Mitigation measures are provided which could allow for the reduction of Project GHG emissions to below the thresholds and, therefore, also reduce the cumulative impacts. However, as these measures effectiveness cannot be definitively assessed at this stage of the project, to be most conservative, the impacts, and the cumulative impacts, are identified as significant.
HFE2-27	Noise impacts are quantified in detail in the Draft EIR and the results of that analysis are present therein. As with all projects and all mitigation, monitoring for compliance is necessary to ensure mitigation effectiveness. GHG emissions, by definition, are cumulative, and these emissions would exceed the SCAQMD thresholds.
HFE2-28	The EIR preparers disagree with the contention that the Draft EIR does not consider a reasonable range of alternatives. In fact, the Draft EIR contains a number of alternatives that were analyzed and in some cases discarded from further analysis because of infeasibility, inability to meet Project objectives or because they were unable to lessen the level of impacts presented under the proposed Project. CEQA Section 15126.6 estates: *"An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible."* The DEIR was not able to locate a parcel in the heavily populated area of the City of Whittier that is more than 1,000 feet from a residence or business and outside of the Preserve and close enough to the resources to allow for extraction. The only exception to these criteria was the Landfill location. The North Site does not present a substantial advantage biologically as it is also

Comment #	Response
	located within the Preserve, although it is located outside of the Core Area. It is also located within 500 feet of the closest residence, which would potentially introduce significant and unavoidable impacts due to vibration, noise and safety and risk. As it was determined in the screening analysis that it would increase the significant and unavoidable impacts, it was discarded from further review.
HFE2-29	The Savage Canyon Landfill Alternative is not rejected form the screening analysis and is in fact carried through the EIR for complete analysis. However, the Alternative is found less desirable because of potential land use impacts and permit obstacles that would render it potentially infeasible and because it does not achieve all of the objectives of the Project.
HFE2-30	The Savage Canyon Landfill Alternative is not rejected form the screening analysis and is in fact carried through the EIR for complete analysis. However, the Alternative is found less desirable because of potential land use impacts and permit obstacles that would render it potentially infeasible and because it does not achieve all of the objectives of the Project. For these reasons, the mitigated proposed Project was selected as the environmentally superior alternative. The decision makers may decide to select another combination of components for the environmentally superior alternative based on community concerns and issue area importance to the community.
HFE2-31	The Savage Canyon Landfill Alternative has some similar impacts as the proposed Project, with the exception of Recreation impacts, which the Landfill alternative does not have. As stated in the analysis, "The disadvantages of this alternative over the proposed Project are that there would be a substantial reduction in the amount of oil that could be recovered from the reservoirs, estimated at recovering 52 to 59 percent of the amount that the proposed Project could recover. There would also be potential impacts to the life of the Landfill as the development could infringe upon areas of the Landfill that are planned for future waste disposal. The waste would have to be transported elsewhere incurring transportation impacts and emissions impacts from disposal trucks. In addition, there could still be biological impacts to occupied California gnatcatcher habitat and to the wildlife corridor as the location is closer to "High Quality" habitat, thereby potentially impacting wildlife movements through the corridor. Finally, permitting of oil and gas facilities within a Landfill operation is considered speculative and the outcome of an application for such a Project is unknown. Information regarding the permitting of such a facility within an existing landfill was unavailable from CalRecycle. Existing landfill regulations do not contemplate oil and gas extraction and processing activities as proposed under this Alternative. Permitting could take years and the outcome would be uncertain at best. Additional engineering would be required to account for the lost landfill area that would be used for this Alternative and to provide adequate waste handling and eventual landfill closure."

Hacienda Heights Improvement Association

Comment #	Response
HHIA-1	Commenter states that replacement habitat should be planted at least 2 years prior to disturbances. Mitigation measure BIO-1a requires that all aspects of the proposed mitigation requiring restoration shall comply with the Habitat Authority's Restoration Guidelines and that mandatory components of any restoration plan shall include, but not be limited to, Site Preparation, Implementation Specifications, Maintenance Methods, Performance Standards, Monitoring Methods, Documentation and Reporting, and Contingency Measures (in case performance standards are not met in any area). All components of any restoration plan prepared in satisfaction of this mitigation measure shall be reviewed and approved by the Habitat Authority prior to implementation.

Comment #	Response
HHIA-2	The Draft EIR provides six pages of information concerning the wildlife corridor patterns on the Preserve and in the Project's general area. Wildlife corridors are not fixed; the Draft EIR biologists can only provide patterns and expected corridors based on data collected for one of the most studied wildlife Corridors in North America (LSA 2007).
HHIA-3	Establishment of new improved wildlife crossing would be beyond the scope of what CEQA requires based upon the analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources. The Draft EIR biologists evaluated the potential utility of constructing either a wildlife overpass or underpass north of the Service Tunnel, as recommended in this comment. The Draft EIR concluded, however, that the potential adverse effects of opening more of the Arroyo Pescadero to increased human/recreational use would likely balance or possibly outweigh the potential benefits of providing a second safe route across Colima Road. In addition, the Draft EIR already includes measures to improve wildlife movement through the existing Service Tunnel.
HHIA-4	The commenter states that the Landfill Road should not be considered for the proposed Project because of the impacts to California gnatcatcher habitat. In Irvine, Orange County, LSA Associates conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: > Although it is difficult to directly relate the effects of noise on breeding birds, no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity) as evidenced by the number of California Gnatcatchers and least Bell's vireos remaining in this area. In fact, in 2000, a least Bell's vireo pair successfully nested in the portion of Bonita Reservoir that was nearest to the construction activity (p. 17). The following summary is contained in the Birds of North America species account for the California Gnatcatcher (Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher [*Polioptila californica*]. The Birds of North America Online [A. Poole, ed.]. Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/574): > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. Report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). Of 91 nests found at heavily used state park, 13% were <3 m from paved roads or trails; no evidence that such nests failed more frequently than those in less disturbed sites (Miner, K. L., A. L. Wolf, and R. L. Hirsch. 1998. Use of restored coastal sage scrub habitat by California Gnatcatchers in a park setting. West. Birds 29:439-446.).

Comment #	Response
HHIA-5	Please see response to comment HHIA-2.
HHIA-6	Please see response to comment HHIA-3. Figure 4.2-4 provides a general overview of the Chino Puente Hills wildlife corridor. Figure 4.2-5 provides road kill information which is an indicator where larger mammals are moving across Colima. Figure 4.2-6 provides likely travel pathways wildlife would use after moving north through the Service Tunnel. The Draft EIR states: Wildlife can cross Colima Road at grade (with risk of automobile collisions) or utilize one of the two road undercrossings (i.e., tunnels) shown in Figure 4.2-5: The Service Tunnel is an undercrossing that connects wildlife on the Project Site to an open space area undergoing habitat restoration on the east side of Colima Road. The Skyline Trail Equestrian Tunnel is 1 mile north of the Service Tunnel. Since the west side of this tunnel only leads to a small, fenced-in area of open space, this tunnel does not effectively facilitate the movement of wildlife through the Puente-Chino Hills Wildlife Corridor. The following species, in decreasing order, showed the highest levels of use recorded at the Service Tunnel: Bobcat, mule deer, gray fox, Virginia opossum, and striped skunk (*Mephitis mephitis*). The Skyline Trail Equestrian Tunnel was found to receive much less use by wildlife, especially those species most sensitive to human disturbance; bobcats, mule deer, and gray foxes went unrecorded at this northerly undercrossing. Haas and Crooks (1999) stated the following with regard to opening of the lands around the Service Tunnel to human recreational activity: Not only would human activity interfere with current relatively undisturbed conditions throughout this property, it would disrupt wildlife movement through the Service Tunnel underpass as animals attempt to cross beneath Colima Road. Since this underpass is the only link between habitat to the east (San Miguel Canyon) and habitat to the west (Arroyo Pescadero Canyon), human disturbance should be kept to a minimum. We strongly recommend that all efforts to allow human activity to occur throughout this area be stopped.
HHIA-7	No specific comment is included on the Draft EIR and as such, no response is provided.
HHIA-8	Mitigation measures are included under cumulative impacts to ensure that construction does not occur concurrently with the Tehachapi Transmission line.
HHIA-9	As stated in Section 4.14.4, crude oil and natural gas sales pipelines would be built under the existing Preserve Loop Road from the Project Site to Colima Road. Loop Road is located on a portion of the existing Arroyo Pescadero Trailhead. Loop Road may also serve as the LACoFD secondary access route to the facility from Colima Road and may need to be widened to 20 feet. Both the road widening and the pipeline installation would take place during the Design and Construction Phase of the Project and would last approximately six to nine months. Trails may be temporarily closed to recreational use during these activities for up to six to nine months, which would not be considered a significant impact. After construction is completed, recreational user would not experience any additional impacts to the Loop Trail requiring mitigation beyond those included in this EIR.
HHIA-10	The North Access Road is proposed due to the currently impacted traffic conditions along Mar Vista Street, which current operates at a level of service of F, whereas Penn Street operates at a level of service of A, a substantial difference. Impacts to Mar Vista Street can be mitigated during the phase 1 and phase 3 of the project, but during construction, with more than 80 vehicles per day entering and leaving the site, the impacts could not be reduced to less than significant.

Comment #	Response
	The decision makers can elect to override the significant impacts to Mar Vista Street during construction associated with the use of Catalina Avenue if they consider the North Access Road, or the Loop Road, to be less desirable.
HHIA-11	The North Access Road would not affect any recreational areas as all areas that the North Access Road would pass through are currently closed to recreational activities. In contrast, the Loop Trail Road, and the area through which it passes, is a recreational area with trails.

Open Space Legal Defense Fund

Comment #	Response
OSLDF2-1	As discussed in the revised Draft EIR (see Section 2.0, Project Description), the Project has been revised from a previous iteration and now all oil and gas drilling and processing facilities would occur on a single pad. The permanent area required for the pad would be approximately 6.9 acres, with an additional 6.5 acres of roadways, most of which are currently present. In addition, the County of Los Angeles Fire Department would require a fuel management zone of approximately 6.9 acres. Furthermore, an additional 8.5 additional acres may be temporarily disturbed for construction and grading the site, but these areas would be revegetated after construction is completed. The revised Draft EIR therefore accurately discloses that the total impacted area associated with pads, roads, the fuel management zone, and construction-related temporarily disturbed areas would be 30.6 acres. In addition, the revised Draft EIR accurately discloses potential noise impacts resulting from the Project. (see Section 4.5, Noise). The Oil, Gas, and Mineral Lease between the City and Matrix did not confer any rights on Matrix to proceed with this Project or any other project, as the lease expressly acknowledges that oil drilling and exploration cannot occur unless Matrix applies for and receives approval of a conditional use permit. This EIR properly analyzes the only project that has been proposed and which is before the City for consideration. The remainder of the comment discusses the commenter's views on unspecified City statements relating to the Project, and does not raise any issues relating to the environmental analysis of the Project. As such, no further response is required.
OSLDF2-2	The Applicant's new Project Description used for this EIR benefitted from the findings of the earlier EIR prepared for a different version of the Project and used, as a starting point, the findings of the Environmentally Superior Alternative for that environmental review. The Applicant, however, modified and refined that Environmentally Superior Alternative and submitted the new Project Description used in this EIR, which is independent, stand alone and unencumbered by the previous review. It should be noted that, contrary to the comment, the previous EIR for the previous version of this Project, identified 15 significant and unavoidable impacts, while this new Project was found in this EIR to have six (6) significant and unavoidable impacts. The revised Draft EIR analyzes the impacts of the increase soil movement and export in Air Quality, which examines fugitive dust emissions from soil movements, and in traffic, which examines the impacts along area roadways of having to transport the increased amount of soils. With mitigation, each of these impacts remains at the same significance levels as was identified in the previous EIR. Note that construction would produce a significant and unavoidable impact due to air emissions. Traffic would produce less than a significant impact with mitigation. The remainder of the comment discusses the commenter's views on the merits of the Project, and does not raise any issues relating to the environmental analysis of the

Comment #	Response
	Project. As such, no further response is required.
OSLDF2-3	Implementation of the Project would impact the Core Habitat, which justifies efforts to minimize impacts and to provide greater mitigation ratios than might be required in a different setting. As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit. Also within Section 4.11 the Draft EIR preparers discuss potential incompatibility issues with the Preserve's Resources Management Plan. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Approval of the Project would provide for funding to restore the site. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City's owned land that is part of the Preserve. In response to the question of habitat disturbance and restoration: of the 40.4 acres of disturbance identified by this comment, 9.86 acres are disturbed due to noise impacts leaving 30.58 acres of habitat loss. Of these 30.58 acres of habitat loss, 9.01 acres are already considered disturbed habitats (roads, pads, or developed) leaving 21.57 acres of habitat loss. The new mitigation acreages are currently 17.94 acres for coastal sage scrub and noise impacts (mitigation measure BIO-1a), a 2:1 replacement for construction and a 1:1 replacement for chaparral and annual grassland (mitigation measure BIO-1b), and replace at 3:1 for riparian areas impacted by permanent facilities and noise (mitigation measure BIO-2a) which totals 56.16 acres of habitat replacement for 21.57 acres of habitat loss. Mitigation measure BIO- 1b has been modified in the Final EIR to include areas to be mitigated as a result of peripheral noise impacts and other refinements. The remainder of the comment discusses the commenter's views on the merits of the Project, and does not raise any issues relating to the environmental analysis of the Project. As such, no further response is required.
OSLDF2-4	Comments on a previous Draft EIR are irrelevant to this document and as such do not require any additional response here. This EIR fully complies with all the requirements of CEQA.

Comment #	Response
	The operations at the Honolulu Terrace and Sycamore Canyon are not related to the proposed Project, do not have any effect on the potential environmental impacts of the current proposed Project, and therefore appropriately are not included in any detailed discussion in the EIR. Nonetheless, in an effort to provide additional information on the general nature of these operations, information on issues related to the Honolulu Terrace site, including noise and odor complaints, have been added to the respective sections in order to provide a general understanding of the impacts of oil operations on area residences. DOGGR provides oversight of the well drilling permits at the Honolulu Terrace and Sycamore Canyon facilities.
OSLDF2-5	The comment appears to be directed to the Habitat Preserve's Resource Management Plan and the fact that the document fails to include a discussion of the Sycamore Canyon oil and gas operations that occur within the Preserve. No specific comment is provided on the current Draft EIR or its analysis of the actual proposed Project, and therefore no additional response is required.
OSLDF2-6	The definition of a Project under the California Environmental Quality Act (CEQA) means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. This environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit (CUP) to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP application was brought forth for the City's consideration. The Staff Report for consideration of the lease specifically stated that signing of the lease agreement did not guarantee that the successful bidder would be able to obtain a CUP once the environmental review is completed. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, "*Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment.*" At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. Finally, in response to the last portion of this comment, the revised Draft EIR contains a complete alternatives analysis as detailed in Sections 5 and 6 of the document.
OSLDF2-7	The comment regarding a failure to conduct a competitive bid process for the issuance of the lease that preceded the Conditional Use Permit application does not appear to address the Draft EIR and as such no additional response is required.
OSLDF2-8	Please see response to comment OSLDF2-6. The comment regarding a failure to conduct California Environmental Quality Act analysis prior to contract approval does not appear to address the Draft EIR and as such no additional response is required.
OSLDF2-9	The City issued the Applicant a lease agreement, which is predicated upon the follow-up design of a Project, preparation of detailed Project Description and application for a Conditional Use Permit that needed to then undergo environmental review, which is being conducted under this document. Issuance of the lease did not constitute Project approval, nor did it bestow upon the Applicant any rights other than the ability to apply for the Project and have it be considered by decision makers once environmental review is conducted. Decisions made by the City at the lease stage have not prevented the EIR preparers from evaluating a wide range of alternatives to come up with the alternatives analyzed in the EIR. Equally, decision makers have yet to weigh in on the Project and as such, the final outcome of this process remains unknown. Decision-makers could deny the Project outright, choose to approve the environmentally superior alternative, mix and match from the different components of the alternatives as they see fit, or approve the Project as presented by the Applicant.

Comment #	Response
	The commenter is also referred to the response to comment OSLDF2-6 for further discussion of this point. The remainder of the comment discusses the commenter's views on the City's actions, and does not raise any issues relating to the environmental analysis of the Project. As such, no further response is required.
OSLDF2-10	No specific comments are made on the Draft EIR or how the commenter's claim of piecemealing has occurred, so no additional response is provided. Responses are provided below to specific comments on piecemealing as appropriate.
OSLDF2-11	The comment refers to the validity of the lease agreement between the City and the Applicant and does not provide any specific comment on the Draft EIR and therefore no additional response is required.
OSLDF2-12	The comment discusses the commenter's views of the Project applicant's incentives in pursuing the Project, and does not provide any specific comment on the Draft EIR. Therefore, no additional response is required.
OSLDF2-13	The geological testing that took place occurred under the provisions of the lease that allows "…surveying in support of the application for a Conditional Use Permit." The geological testing involved minimal disturbance in previously disturbed areas approved by the Habitat Authority and under their supervision. The City found the activities exempt from permits and the Habitat Authority imposed a series of requirements to ensure no impacts would occur. The comment discusses the commenter's views of actions relating to prior geological testing, and does not provide any specific comment on the Draft EIR. Accordingly, no further response is required.
OSLDF2-14	The geological testing that took place occurred under the provisions of the lease that allows "…surveying in support of the application for a Conditional Use Permit." The geological testing involved minimal disturbance in previously disturbed areas approved by the Habitat Authority and under their supervision. The City found the activities exempt from permits and the Habitat Authority imposed a series of requirements to ensure no impacts would occur. The Geotechnical studies are included as Appendix L. The comment discusses the commenter's views of actions relating to prior geological testing, and does not provide any specific comment on the Draft EIR. Accordingly, no further response is required
OSLDF2-15	The geological testing that took place occurred under the provisions of the lease that allows "…surveying in support of the application for a Conditional Use Permit." The geological testing involved minimal disturbance in previously disturbed areas approved by the Habitat Authority and under their supervision. The City found the activities exempt from permits and the Habitat Authority imposed a series of requirements to ensure no impacts would occur. The comment discusses the commenter's views of actions relating to prior geological testing, and does not provide any specific comment on the Draft EIR. Accordingly, no further response is required
OSLDF2-16	The comment refers to the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current Project, and therefore no further response is required. The following comment refers to the commenter's interpretation of the terms of the Lease Agreement and the commenter's views thereon, does not provide any specific comment on the Draft EIR. Accordingly, no further response is required.

Comment #	Response
OSLDF2-17	The comment refers to the EIR that was prepared for a prior version of the Project and does not provide any specific comment on the Draft EIR for the current Project, and therefore no further response is required.
OSLDF2-18	The comment refers to the EIR that was prepared for a prior version of the Project and does not provide any specific comment on the Draft EIR for the current Project, and therefore no further response is required.
OSLDF2-19	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the Project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-20	The comment refers to the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current Project other than the commenter's views on the adequacy of the document, and therefore no further response is required.
OSLDF2-21	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-22	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-23	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-24	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-25	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-26	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-27	The current Project is described in detail in Section 2 of the document, Project Description, and the revised Draft EIR fully analyzes the potential impacts of this Project. The remainder of the comment relates to the commenter's views on the revised Project and does not provide any specific comment on the revised Draft EIR. As such, no further response is required.
OSLDF2-28	At the time that the prior EIR was prepared and released for public comment, the project applicant intended to pursue the iteration of the project analyzed therein. Subsequently, and only after the prior EIR was released, did the applicant revise the project in various ways – including consolidation of the site – and submit a revised Conditional Use Permit application in April 2011. These changes required a new analysis of the revised Project. This new analysis is what is present in the revised Draft EIR The remainder of the comment focuses on the commenter's views of the timing of the project revisions but does not provide any specific comment on the analysis in the Draft EIR and, as such, no further response is required.

Comment #	Response
OSLDF2-29	This comment focuses on the commenter's views of the timing of the project revisions but does not provide any specific comment on the analysis in the Draft EIR and, as such, no further response is required.
OSLDF2-30	This comment relates to statements made by an individual as set forth in document filed in a lawsuit against the City. The comment does not provide any specific comment on the analysis in the Draft EIR and, as such, no further response is required.
OSLDF2-31	The comment discusses the commenter's views on the EIR that was prepared for a prior version of the project and does not provide any specific comment on the Draft EIR for the current version of the Project, and therefore no further response is required.
OSLDF2-32	This comment focuses on the commenter's views of the timing and the merits of the project revisions but does not provide any specific comment on the analysis in the Draft EIR and, as such, no further response is required.
OSLDF2-33	This comment relates to statements by the project applicant relating to the project and the project site but does not provide any specific comment on the analysis in the Draft EIR and, as such, no further response is required.
OSLDF2-34	Subsequent to the preparation and release for public comment of the prior EIR, the project applicant determined to revise the Project in various ways – including consolidation of the site – and to submit a revised Conditional Use Permit application. The revised application and site plan information were submitted to the City in April 2011. The City determined that it was appropriate to prepare a revised analysis of the potential impacts of this revised Project in order to fully comply with CEQA's information disclosure mandates. The City appropriately only undertook a revised analysis of the reformulated project upon the formal submission by the project applicant of a revised project as set forth in the revised Conditional Use Permit application.
OSLDF2-35	This comment relates to the commenter's views of the timing of the revisions to the Project and restates a City's announcement relating to the EIR for the prior version of the project. The comment does not contain any specific on the revised Draft EIR for the current project and, as such, no further response is required.
OSLDF2-36	This comment relates to the commenter's interpretation of various provisions of the Lease Agreement but does not provide any specific comment on the analysis in the revised Draft EIR and, as such, no further response is required.
OSLDF2-37	Reasons for preparation of a revised EIR are included in the Section 1, Introduction, which states as follows: "Matrix, the Applicant and the operator of the Whittier Main Oil Field, submitted a CUP application to the City of Whittier in April 2009 to drill, explore, and produce the remaining recoverable oil and gas reserves at the site. In October 2010, a Draft EIR was released to the public for a 60-day public comment period. Subsequently, in April of 2011, the Applicant amended its CUP application to modify the Project to conform to the Environmentally Superior Alternative identified in the October 2010 Draft EIR. Notably, Matrix revised the Project to consolidate drilling facilities from three drilling sites to one consolidated site. The consolidated site also included the oil and gas processing facilities, eliminated the need for a new access road and incorporated a truck loading facility, which in turn eliminated a separate truck loading facility proposed under the earlier version of the Project. Finally, the revised Project includes access through Penn Street through the Savage Canyon Landfill and the existing North Access Road into the Preserve. The revised Project is the subject of this new environmental review. This Revised Public Draft EIR is provided to the public, who has the opportunity to comment on the Revised Project. The California Environmental Quality Act (CEQA) does not require this document to include responses to comments on the previous Public Draft EIR. However, the Final EIR includes responses to all comments submitted to this Draft EIR and as determined relevant to this environmental document."

Comment #	Response
OSLDF2-38	This EIR responds to all comments submitted on the revised Draft EIR (included in Appendix M) and therefore fully complies with CEQA's requirement to respond to all pertinent comments on significant environmental issues. See 14 Cal. Code Regs. § 15088.5(f)(1). The remainder of the comment relates to the commenter's interpretation and views of the Lease Agreement Amendment, but does not provide any specific comment on the analysis in the revised Draft EIR. Accordingly, no further response is required.
OSLDF2-39	The Applicant's new Project Description used for this EIR benefitted from the findings of the earlier EIR prepared for a different version of the Project and used, as a starting point, the findings of the Environmentally Superior Alternative for that environmental review. The Applicant, however, modified and refined that Environmentally Superior Alternative and submitted the new Project Description used in this EIR, which is independent, stand alone and unencumbered by the previous review.
OSLDF2-40	The revised NOP stated that the revised Project incorporated aspects of the environmentally superior alternative from the previous EIR. Refinements were made to the original design and that is the Project analyzed in this environmental document. The Applicant's new Project Description used for this EIR benefitted from the findings of the earlier EIR prepared for a different version of the Project and used, as a starting point, the findings of the Environmentally Superior Alternative for that environmental review. The Applicant, however, modified and refined that Environmentally Superior Alternative and submitted the new Project Description used in this EIR, which is independent, stand alone and unencumbered by the previous review. Notably, Matrix revised the Project to consolidate drilling facilities from three drilling sites to one consolidated site. The consolidated site also included the oil and gas processing facilities, eliminated the need for a new access road and incorporated a truck loading facility, which in turn eliminated a separate truck loading facility proposed under the earlier version of the Project. Finally, the revised Project includes access through Penn Street through the Savage Canyon Landfill and the existing North Access Road into the Preserve.
OSLDF2-41	The comment relates to the commenter's views on the conclusions in the revised Draft EIR but does not provide any specific comment on the analysis in the revised Draft EIR and, as such, no further response is required.
OSLDF2-42	The comment relates to the commenter's views on the conclusions in the revised Draft EIR but does not provide any specific comment on the analysis in the revised Draft EIR and, as such, no further response is required.
OSLDF2-43	The commenter fails to recognize that the impacts that are mentioned in the comment are found to be significant and either mitigable or unmitigable depending on the impact. For example, in the first portion of the comment, the commenter mentions impacts related to air emissions due to construction. Those impacts are found to be significant and unavoidable in Section 4.1, Air Quality of the EIR. However, some impacts were found to be significant, but mitigable in comparison to the earlier version of the Project, due to consolidation of impacts to one area, reduction of new roads and longer distance from sensitive resources. As a result, and not surprisingly, the new Project, based on the previous Environmentally Superior Alternative, is substantially less impactful that the previous Project design. Matrix's opinions about the relevance of consistency with the RMP are irrelevant to the City's ultimate decision on such consistency. The City has its own General Plan and has never approved the Habitat Authority's RMP. The RMP as approved, is inconsistent with the City's General Plan since it does not recognize that oil and gas production could occur within the Open Space zone district that is part of the Preserve. In fact, the RMP also fails to recognize that the Sycamore Canyon Oil and Gas Facility, which is currently drilling and producing oil is within the Preserve. The RMP is a planning document used for the Preserve's purposes, but does not carry the same

Comment #	Response
	weight as the City's General Plan. Finally, the City is at liberty to cancel their existing contract with the Habitat Preserve for stewardship of their property and could assign it to other land preservation authority or manage it itself.
OSLDF2-44	A statement of project revisions has been added to the EIR as part of Section 1, Introduction. The remainder of this comment relates to the commenter's views on the City's noticing and announcements regarding the revised Draft EIR but does not provide any specific comment on the analysis in the revised Draft EIR and, as such, no further response is required.
OSLDF2-45	The definition of a Project under the California Environmental Quality Act (CEQA) means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. This environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit (CUP) to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP application was brought forth for the City's consideration. The Staff Report for consideration of the lease specifically stated that signing of the lease agreement did not guarantee that the successful bidder would be able to obtain a CUP once the environmental review is completed. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, "*Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment.*" At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. The revised Draft EIR fully analyzes the complete Project that is presented by way of revised CUP application.
OSLDF2-46	This comment summarizes the commenter's interpretation of CEQA and the commenter's views of the revised Draft EIR but provides no specific comment on the revised Draft EIR. As such, no further response is required.
OSLDF2-47	The total amount of permanently disturbed area for the proposed permanent pads is 6.9 acres, which is less than the allotted 7 acres within the lease agreement. The remainder of the comment relates to the commenter's interpretation of various provisions of the Lease Agreement but does not provide any specific comment on the analysis in the revised Draft EIR. As such, no further response is required.
OSLDF2-48	Proposition A relates to funding for the acquisition and purchase of public lands for purposes as specified therein, but does not control the City's use of lands that are removed from Proposition A purposes and for which the County of Los Angeles is compensated. Accordingly, Proposition A appropriately is not analyzed in the revised Draft EIR.
OSLDF2-49	The Public Works Director, Mr. Pelser, has been consulted multiple times during the process of the EIR preparation and has expressed a number of concerns about design issues related to the roadway and the proper mechanisms for addressing potential roadways issues within the Landfill. However, Mr. Pelser has at no time indicated that he feels the North Access Roadway is infeasible. The design issues of concern are related to drainage, grade, re-imbursement of the Landfill for potential costs, etc, which, as per Mr. Pelser's verbal indication, are all issues that would be resolved during the detailed design process that is normally undertaken after CEQA review. Concerns related to the permitting of the North Access Roadway within the Landfill

Comment #	Response
	and the use of Landfill roadways for Project related traffic have been discussed with CalRecycle and, although a permit modification would most likely be required, it does appear feasible. The role of the EIR and CEQA at this stage of a project is to determine feasibility, not to produce final design documents.
OSLDF2-50	This comment relates to the commenter's views of the completeness of the Conditional Use Permit application, which was accepted as complete by the City, but does not appear to provide a specific comment on the revised Draft EIR. Accordingly, no further response is required.
OSLDF2-51	This comment relates to the commenter's views of the adequacy of the revised Draft EIR but does not appear to provide a specific comment on any specific portion thereof. Accordingly, no further response is required.
OSLDF2-52	Impacts of mitigation measures from other issue areas are addressed at the end of each issue area. For example, the installation of sound walls around the drilling rig as in mitigation measure N-2a is addressed in Section 4.6.4.1 along with Figure 4.6-14. This is true for other applicable mitigation measures as well. Some mitigation measures that would require minimal construction, such as providing pedestrian access (BIO-4n within Section 4.2, Biology) or modifications to intersection turning radius (T-1d within Section 4.7, Traffic), are not analyzed further because there is no potential for significant adverse impacts relating to these mitigation measures..
OSLDF2-53	The additional geological testing that may need to be conducted for the Landfill Road would be done in concert with the Habitat Authority, for the portions related to the North Access Road, and outside the areas occupied by gnatcatchers and in previously disturbed areas. The Landfill Road within the Landfill would be constructed within previously disturbed areas. Hand auger probes in previously disturbed areas are not considered to be impactful and are typically ministerially permitted by most jurisdictions. Potential impacts would be mitigated by a number of construction mitigation measures already required as part of the EIR that would be applicable for this part of the Project.
OSLDF2-54	Well bottom-hole locations could be located within any of the parcels identified in the lease agreement and shown in Figure 2-2. This is discussed in Section 2, Project Description.
OSLDF2-55	Appendix A of the Draft EIR includes detailed plans, which show the location of basins.
OSLDF2-56	The exact location of construction wastewater storage would be developed as part of the construction phase planning and permits stage. The exact location is not needed to conduct a CEQA analysis as long as the location is contained within the proposed Project site and is analyzed as part of the EIR. In addition, the areas that are going to be used for wastewater storage are located within the proposed pads.
OSLDF2-57	Appendix A of the Draft EIR includes detailed plans which show the location of retaining walls along the North Access Road. More detailed plans would be developed for the Public Works Department in order to obtain permits. The exact location is not needed to conduct a CEQA analysis and the retaining walls will be constructed within an area that has been fully analyzed in the EIR.
OSLDF2-58	The proposed extent of grading as per the Applicants drawings, has been analyzed in the Draft EIR. In addition, the EIR analysis is conservative in its approach and assesses a worst case scenario of the amounts of grading that would have to occur at the site. As a result, it is unlikely that additional grading would be required beyond that analyzed in the Draft EIR. No new significant impacts would be generated and the resulting grading would be mitigated through the application of mitigation already established in the Draft EIR.
OSLDF2-59	Fuel modification zones have been clearly delineated in figures and along roadways in the Draft EIR, including Appendix A and Figure 2-6. Exact acreages are tabulated in Section 4.2, Biological Resources.
OSLDF2-60	Worker staging and parking areas are delineated in the Project Description and in

Comment #	Response
	Appendix A. Exact acreages are tabulated in Section 4.2, Biological Resources. Tables 2-5 and 2-6 provide information on the numbers and types of vehicles accessing the site. Additional information has been added to clarify parking and staging areas and number of vehicles.
OSLDF2-61	Although the final geotechnical and drainage report have not been completed, the habitat replacement ratios will apply to all impacts to protected sensitive habitats including riparian habitat and therefore, would increase if the drainage plan requires additional impacts to riparian habitat or drainages. In addition, the City will review the final grading plans prior to issuing permits to determine if there are any additional impacts to riparian habitat resulting from final road, pipelines, and drainage plans. Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance once the grading plans are reviewed and approved would be addressed at the time the City issues permits. The EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can enforce as part of the Conditional Use Permit. The mitigation already states that all "revegetation efforts shall comply with the Habitat Authority's Restoration Guidelines" and the Mitigation Monitoring Plan (page 4.2-76) already states that the Agency review must occur and be approved prior to the City issuing any permits for work, allowing for agency review prior to final grading. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including (1) a Section 404 Permit from the U.S. Army Corps of Engineers, (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality, and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. That permitting process would only occur with the final grading elements based on the results of the geotechnical study. Together, BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects will remain at a level less than significant.
OSLDF2-62	As with most oil and gas projects, the impacts of decommissioning at the end of the Project life cannot be evaluated until the Project becomes economically unviable and decommissioning is imminent. At that time, additional environmental review and permitting would evaluate the potential impacts of the overall decommissioning of the Project, including well abandonment and restoration. Because decommissioning would occur at a later date, the baseline could not be determined now to evaluate relevant impacts. In addition, the nature of the decommissioning process would only be developed based on the needs of that specific Project at that time. Evaluation of decommissioning impacts is speculative at this time. However, decommissioning in the event that the Project proves uneconomical during the exploratory phase is discussed in the Project Description and impacts evaluated as appropriate throughout the document.
OSLDF2-63	Additional information has been added to Section 2.0, Project Description, in the Final EIR in regards to the Crimson crude pipeline system and the Southern California Gas Company natural gas systems. However, the exact end-destination of crude is a function of market conditions and has not been established by the Applicant at this time.
OSLDF2-64	The South Coast Air Quality Management District and the City would review, approve, and oversee the odor minimization and monitoring plans. The plans would

Comment #	Response
	be required at the time of applying for the permits and not at the EIR stage. Odor minimization plans would include issues as detailed in mitigation measure AQ-3a, AQ-3b, AQ-3c and AQ-3d, including a gas buster and flare system during drilling, tank monitoring, ambient air quality monitoring as well as a process to identify other potential odors and develop systems to eliminate or reduce these odors severity and frequency. These techniques have been utilized at other oil and gas fields, such as at Baldwin Hills, and have demonstrated the ability to reduce odor events to below the SCAQMD thresholds. Therefore, the approach defined in the mitigation measures to AQ.3 has demonstrated feasibility on similar operations and therefore are considered to be capable of reducing the odor impacts to less than significant.
OSLDF2-65	The Ranger's residence is used throughout the EIR analysis as a sensitive receptor for purposes of risk and noise and no impacts were found that required relocation. Relocation of the ranger's residence is not proposed in any mitigation so the impacts of relocation are not analyzed.
OSLDF2-66	An acoustical analysis was conducted for the proposed Project and alternatives and the results of this analysis was the mitigation measures discussed in measures N-2a and N-4. The analysis utilized the modeling software SoundPlan, which can perform complicated analysis incorporating terrain and frequency effects, as well as enabling the addition of berms, walls and noise mitigation devices.
OSLDF2-67	None of the mitigation measures or alternatives proposes early closure of the Landfill in order to mitigate Project impacts. The Landfill Alternative might result in early closure, depending on the exact location of the equipment, but closure of the Landfill would be handled by the respective agencies, may requires its own CEQA document and is outside the scope of the Draft EIR.
OSLDF2-68	The commenter states that the Draft EIR is inadequate because it does not include a Habitat Conservation Plan. The Draft EIR devotes a fairly lengthy paragraph to providing a useful overview of the federal Endangered Species Act and its potential applicability to the proposed Project. Although critical habitat is defined in the Endangered Species Act as areas that are "essential" for the conservation of a given listed species, impacts to critical habitat are regularly permitted by the US Fish and Wildlife Service (Service), especially for species listed as threatened, rather than endangered. The 3:1 mitigation ratio proposed for impacts to coastal sage scrub is at the high end of what the Service typically requires for the California gnatcatcher, even in designated critical habitat. There is no requirement to prepare a Habitat Conservation Plan if Section 7 consultation occurs, as it typically does, as a requirement of obtaining a Section 404 permit from the US Army Corps of Engineers.
OSLDF2-69	Acreages impacts have been made consistent throughout the document in the Executive Summary; Section 2.0, Project Description; and Section 4.2, Biology.
OSLDF2-70	The Wildlife Corridor Conservation Authority received the Draft EIR and has provided comments on the document.
OSLDF2-71	Information on the history of the area and parcels is included in Section 2.0, Project Description.
OSLDF2-72	The issue of oil rights underlying the property raises legal issues not appropriate for discussion in an environmental analysis. Accordingly, no further response is required.
OSLDF2-73	This comment requests that the Lease Agreement be included as an appendix to the revised Draft EIR, but the Lease Agreement is not related to the environmental analysis of the Project and therefore is not appropriate for inclusion in the Draft EIR. With respect to the comment regarding prior CEQA review, please see the response to comment OSLDF2-6.
OSLDF2-74	The revised Draft EIR analyzes the only project that has been proposed and for which a Conditional Use Permit has been requested pursuant to the Lease Agreement. Accordingly, consideration of any other Conditional Use Permit applications would merely be speculation and therefore is not appropriate for inclusion in the revised Draft EIR. In addition, please see the response to comment OSLDF2-6 for further

Comment #	Response
	information regarding the scope of the project.
OSLDF2-75	The Applicant's new Project Description used for this EIR benefitted from the findings of the earlier EIR prepared for a different version of the Project and used, as a starting point, the findings of the Environmentally Superior Alternative for that environmental review. The Applicant, however, modified and refined that Environmentally Superior Alternative and submitted the new Project Description used in this EIR, which is independent, stand alone and unencumbered by the previous review. Matrix revised the Project to consolidate drilling facilities from three drilling sites to one consolidated site. The consolidated site also included the oil and gas processing facilities, eliminated the need for a new access road and incorporated a truck loading facility, which in turn eliminated a separate truck loading facility proposed under the earlier version of the Project. Finally, the revised Project includes access through Penn Street through the Savage Canyon Landfill and the existing North Access Road into the Preserve. The revised Project is the subject of this new environmental review.
OSLDF2-76	This comment relates to statements by one of the City's councilmembers. Comments from an individual councilmember may or may not reflect the positions of the entire Council (and therefore the City as an entity); this issue is beyond the scope of the revised Draft EIR. Further, the revised Draft EIR analyzes the proposed Project against the objectives provided by the applicant and the City; it is not appropriate for the EIR preparers to alter these objectives. Nonetheless, the EIR preparers note that the City's decisionmakers retain the discretion to determine that there are additional project objectives on the part of the City.
OSLDF2-77	The revised Draft EIR analyzes the proposed Project against the objectives provided by the applicant and the City; it is not appropriate for the EIR preparers to alter these objectives.
OSLDF2-78	The operations at the Honolulu Terrace and Sycamore Canyon are not related to the proposed Project. Information on issues related to the Honolulu Terrace site, including noise and odor complaints have been added to the respective sections in order to provide an understanding of the impacts of oil operations on area residences.
OSLDF2-79	The operations at the Honolulu Terrace and Sycamore Canyon are not related to the proposed Project.
OSLDF2-80	The issue of oil rights underlying the property raises legal issues not appropriate for discussion in an environmental analysis. Accordingly, no further response is required.
OSLDF2-81	This comment requests that the Lease Agreement be included as an appendix to the revised Draft EIR, but the Lease Agreement is related to the environmental analysis of the Project and therefore is not appropriate for inclusion in the Draft EIR.
OSLDF2-82	This comment is unclear regarding its request for inclusion of the "amount to be provided to the Preserve under the Lease Agreement." To the extent that the commenter is requesting information on royalty payments, this figure is not known and would be dependent on several factors, including production volumes and oil prices. The remainder of the comment relates to the commenter's views of the revised Draft EIR but does not provide any specific comment on the revised Draft EIR. As such, no further response is required.
OSLDF2-83	Some of the information requested is irrelevant to the Project Description and the environmental review. However, Section 2.2.2 of the Project Description contains information on the numbers of acres conforming the Preserve and their ownership.
OSLDF2-84	Information on the Wildlife Corridor is included in Section 4.2, Biological Resources.
OSLDF2-85	Figure 2-13 along with the descriptions of each of the phases, provides detailed information on the duration of each phase and sub-phase.
OSLDF2-86	Decommissioning in the event that the Project proves uneconomical during the exploratory phase is discussed in the Project Description and impacts evaluated as appropriate throughout the document. DOGGR has requirements related to well abandonment and site cleanup and those requirements are used to evaluate potential

Comment #	Response
	impacts of decommissioning if the Project proves uneconomical.
OSLDF2-87	The acreage of 6.9 acres is related to the pad area only. Reference to the pad area has been clarified throughout the document.
OSLDF2-88	Acreage has been modified in the Final EIR as appropriate. Some FMZ are shown in Appendix A, although some areas along roadways are not shown and have been calculated using GIS systems for the remaining areas. Mitigation measures in Section 4.2, Biological resources, address the restoration of disturbed areas. Revegetation efforts will begin immediately after construction is completed.
OSLDF2-89	Mitigation to require restoration within a given timeframe and to limit parking to only designated areas has been added to Section 4.2, Biological Resources.
OSLDF2-90	The Project Description provides acreages for all areas of the proposed Project. Road areas are all areas within the Preserve that would be used as roads. The pad area is the location of the equipment pad. There is some overlap between disturbed areas and FMZ for the pad and road areas, and these are assigned to either the respective pad or road area.
OSLDF2-91	Figure 2-13 and Section 2, Project Description, details the use of Catalina Avenue during each phase of the Project. It would not be used for soil export. The pipeline size is detailed in the Project Description.
OSLDF2-92	Additional information has been added to Section 2.0, Project Description, in the Final EIR in regards to the Crimson crude pipeline system and the Southern California Gas Company natural gas systems. The Applicant has undertaken the discussions with Crimson and with SCGC to ensure that they would be capable of handling the proposed crude oil levels as part of their application process to the City. If Crimson is not capable of handling the crude oil, then the Applicant would have to amend the Application, potentially requiring an amendment to the EIR for other pipeline routes and tie-ins or other transportation methods. Crimson and SCGC were not part of the NOP or DEIR distribution list.
OSLDF2-93	Reference to the above-ground gas pipeline was in error and has been removed from the Final EIR.
OSLDF2-94	Information on the distances to the Ranger Residence has been added to Table 2-4 in the Final EIR. Distances to pipelines and roadways are discussed in the respective sections, such as 4.3, Safety and Risk, and Section 4.5, Noise and Vibration.
OSLDF2-95	As shown in Table 2-13, the construction of the North Access Road would take place before site grading.
OSLDF2-96	The Draft EIR Section 2, Project Description, lists the amount of cut and fill associated with the construction of the North Access Road. This would be a minimal amount, and has been revised as per Applicant comments, to 2,000 yds3. The breakdown between cut and fill has not been provided by the Applicant, but would most likely be all cut. Information on the retaining walls and k-rail is included in Appendix A and has been added to Section 2.0 of the FEIR. Appendix A is provided in electronic format and can therefore be expanded to whatever zoom level the reader desires. The Project Description indicates that the North Access Road would be paved. It also indicates that the construction of the North Access Road would take place before the grading and construction at the pad sites as the North Access Road would be used as the primary access for the grading and construction at the pad sites. Please see Figure 2-13, Project Schedule.
OSLDF2-97	There would not be any cut and fill or grading associated with the improvements to Catalina Avenue. Some asphalt may be removed as part of the roadway improvements during the construction phase of the Project.
OSLDF2-98	Impacts to biological habitats are been addressed in detail in tables in Section 4.2, Biological Resources. Biological habitats layers were provided by the Habitat Authority and were used to determine impacts to vegetation and habitats.
OSLDF2-99	The Loop Trail Road would remain unpaved and this has been added to Section 2, Project Description.

Comment #	Response
OSLDF2-100	Historically, soils have not been included when calculating the allowable waste accepted at the Landfill as soils are not considered wastes. The Church project, for example, moved over 200 trucks per day to the landfill. This Project would move less than half that amount on a daily basis. The Air Quality Section assumes that soils would be deposited at some other location and accounts for this in the air emissions using the average trip distance tabulated in the URBEMIS software for LA County. Mitigation measure T-1f limits the time of traffic on Penn Street to hours when the Landfill is operating and to within the hours of limited parking along Penn Street.
OSLDF2-101	All trips listed in the Draft EIR are round-trips. The 259 trips to the landfill are based on lags from the landfill operator, which tabulate the number of visits. A single visit would entail a trip to the landfill and the return trip.
OSLDF2-102	The Landfill did not tabulate the total quantity of soils, only the number of trips. The total soils are less important as it is the number of trips along Penn Street that produces the impacts.
OSLDF2-103	Mitigation measures are included requiring bermed areas around the drilling rig (WR-3b). Construction would be within applicable codes for construction hours as specified in mitigation measure N-1. Drilling of the test wells would have minimal construction activities as the wells may have to be removed if they are found to not be viable. Well cellars would not be installed and the well heads would be placed above grade for the test phase of the Project. Equipment used during the testing phase would include the drilling rig and associated equipment (baker tanks for muds and water, etc), as well as baker tanks for the storage of the crude oil and a loading area for trucks. A flare would also be present to burn off the gas produced from the wells. Equipment used is described in Section 2.3.2.
OSLDF2-104	Parking would be provided by the Applicant on the Preserve property. The location of parking and staging areas are shown in figures added to Appendix A of the Final EIR. The size of the parking and staging area is provided in Table 2-3 of the DEIR. The proposed location would be inside the Catalina Avenue gate on the Preserve property between the Catalina Avenue gate and the Processing Site. Fugitive dust has been assessed in Section 4.1 of the DEIR and includes mitigation measures such as watering and the use of soil binders, to reduce fugitive dust levels. In addition, mitigation measure N-1c requires moving the parking and staging area to the north of the Ranger's residence to reduce nuisance issues.
OSLDF2-105	The area of the project site cleared for initial test drilling would be less than the final pad area. Debris would be removed to the Landfill as specified in the Project Description or may be chipped on site as indicated in comments from the Habitat Authority. The area disturbed is assumed to be equal to the well drilling pad area in the air quality analysis. Minimal cut and fill would be performed as the goal is to clear and level only an area that can accommodate the drilling rig.
OSLDF2-106	Section 4 provides an analysis of the activities which produce the greatest impacts in order to understand what the worst case impacts of the Project would be. Therefore, noise looks at the construction phase worst case construction period, and not all portions of the construction activities. Noise also does look at drilling separately from operations, which would be the test phase. However, in general, impacts of each phase are not analyzed separately as this would provide little additional understanding of the significance of the impacts of the whole project.
OSLDF2-107	Improvements to Catalina Avenue within the Preserve have not been specified by the Applicant, but would most likely be related to Fire Department requirements related to access, all-weather road surfacing and roadway brush clearing and clearance height requirements.
OSLDF2-108	The area that would be disturbed for utilities installation is part of the staging and parking area and is tabulated in the respective impacted areas tables within Section 2 and Section 4.2, Biological Resources.
OSLDF2-109	Information on DOGGR requirements is detailed in Section 4.3, Safety and Risk, in

Comment #	Response
	the regulatory section. The location of equipment related to well drilling would be grouped around the proposed well site location. The Applicant has not provided details on the equipment arrangement, the exact location of which would be determined by the drilling company. No information was provided on the location of potential "bermed" areas that might contain muds. Therefore, mitigation measures have been added directing the Applicant to contain muds in Baker style tanks (mitigation measure BIO-3b). Restoration plans would be covered by mitigation measures in Section 5.2, Biological Resources, that direct re-vegetation of graded and temporarily disturbed construction areas.
OSLDF2-110	Tanker trucks can hold up to 10,000 gallons, but normally carry less than that as they are limited by weight restrictions. The location of equipment related to well drilling would be grouped around the proposed well cellar location. No plot plan for the testing phase has been developed by the Applicant.
OSLDF2-111	Grading and soil export would not be conducted during the testing phase, only clearing of site brush and leveling of the area. Appendix A includes a breakdown of the trips related to the testing phase.
OSLDF2-112	The Applicant has not indicated the hours and days of construction. Therefore, mitigation measure N-1a specifies the limits on construction hours. Drilling would occur for 24 hours per day, 7 days per week.
OSLDF2-113	The Loop Trail Road would not be paved and this has been added to the Project Description. No soil export is planned for the construction of the North Access Roadway. The location and height of retaining walls along the North Access Road are shown in the Appendix A. Detailed plans on the construction of the North Access Road would be developed during the detailed permit stage of the Project within the parameters analyzed in the EIR.
OSLDF2-114	Detailed site layouts during construction have not been developed by the Applicant at this stage of the project and are not required in order to perform a CEQA analysis. The construction equipment would be located within the pad area or within the staging and parking area.
OSLDF2-115	The Applicant has not indicated the hours and days of construction. Therefore, mitigation measure N-1a specifies the limits on construction hours. Drilling would occur for 24 hours per day, 7 days per week.
OSLDF2-116	Exported soil would be transported to an undetermined location within the Landfill along the North access Roadway. The 2.5 miles is the distance to Penn Street. The soil repository location within the Landfill would be less than 2.5 miles.
OSLDF2-117	Soil contamination is not expected to encompass all of the soils that would require exporting. If any, only a small percentage of the soils would be contaminated and would need to be transported to Kettleman. This would only have minimal impact on air quality and, as air impacts are already identified as significant and unavoidable during construction, has not been included.
OSLDF2-118	The air quality Section assumes that soils would be deposited at some other location and accounts for this in the air emissions using the average trip distance tabulated in the URBEMIS software for LA County.
OSLDF2-119	The Applicant has not indicated the hours and days of construction. Therefore, mitigation measure N-1a specifies the limits on construction hours. The amount of cut and fill for the utilities and pipelines is typically balanced and any small quantities of remaining soil would be minimal, would be used for re-contouring and compacting and not require export from the site.
OSLDF2-120	Figure 2-14 shows representative pictures of the drilling rigs.
OSLDF2-121	The Applicant has not indicated the hours and days of construction. Therefore, mitigation measure N-1a specifies the limits on construction hours. Construction truck trips are detailed in Appendix A related to pipeline construction activities. As specified in the Project Description, the gas pipeline would operate at 500 psig. The Applicant has communicated with SCGC to determine the appropriate pressure level

Comment #	Response
	needed to add gas to the SCGC pipeline. The crude oil pipeline would operate at about 100 psig, as specified in the Project Description. The Applicant has undertaken the discussions with Crimson and with SCGC to ensure that they would be capable of handling the proposed crude oil levels as part of their application process to the City. If Crimson is not capable of handling the crude oil, then the Applicant would have to amend the Application, potentially requiring an amendment to the EIR for other pipeline routes and tie-ins or other transportation methods. Roadway closures would be handled as part of the Public Works permitting and the Traffic Management Plan. Asphalt would be hauled to an appropriate landfill or re-cycling facility, the distance of which was assumed to be the average distance compiled in URBEMIS for LA County.
OSLDF2-122	Construction activities related to noise are addressed in Section 4.5 and include an analysis of construction noise. Construction noise would not be significant if it is performed within the hours prescribed by the City Municipal Code. Only the worst case construction noise was assessed, not all noise from all activities of the Project.
OSLDF2-123	The staging and parking area is discussed in Section 2.0 of the Draft EIR. Pipelines would be stored in the staging and storage areas throughout the duration of pipeline construction (approximately 6 months).
OSLDF2-124	The installation of the pipeline within the Preserve along the Loop Trail Road would be similar to the installation along Colima Road except for the asphalt. This has been added to the Final EIR.
OSLDF2-125	Hauling of material from the Project Site has been included in the air quality analysis using the average trip distance tabulated in the URBEMIS software for LA County.
OSLDF2-126	Construction truck trips are detailed in Appendix A. Concrete is normally delivered to the site as needed and would not be stored onsite. Concrete truck trips were estimated as per information provided by the Applicant for the drilling and construction phases in their Application. These calculations and assumptions are located in Appendix A with the resulting truck trips included in the vehicle traffic analysis.
OSLDF2-127	Drilling cuttings are accounted for in Appendix A details on truck trips.
OSLDF2-128	The Applicant indicates that all equipment would be stored at the staging and parking area or within the pad site. Additional mitigation has been added to Section 4.2, Biological Resources, to ensure that equipment is parked only within these areas. Additional mitigation in traffic prohibits parking on area streets.
OSLDF2-129	Information on access routes has been added to Figure 2-13 in the Final EIR.
OSLDF2-130	Drilling muds are accounted for in Appendix A details on truck trips. The disposal location has not been specified by the Applicant.
OSLDF2-131	Drilling would take place year-round. The Applicant has not specified containment. Mitigation measures in Section 4.8, Hydrology, require berms around all drilling equipment. Once the facility is constructed, it would be enclosed by berms and catch-basins.
OSLDF2-132	Exact lighting locations and levels would be determined as part of the detailed permit process and is not required for a CEQA analysis.
OSLDF2-133	The Applicant indicates that all equipment would be stored at the staging and parking area or within the pad site. Additional mitigation has been added to Section 4.2, Biological Resources, to ensure that equipment is parked only within these areas. Additional mitigation in traffic prohibits parking on area streets.
OSLDF2-134	Appendix A shows detailed drawing with the location of the major pieces of equipment.
OSLDF2-135	The exact height of the berms and retaining walls would be determined during the detailed permitting of the facility. Section 4.3, Safety and Risk, includes an analysis on the frequency of tank failures.
OSLDF2-136	The dimensions of the water tank are shown in Table 2-12. The exact location has not been determined, but would be in the crude oil processing area.
OSLDF2-137	The detention basin size has not been provided by the Applicant. However, based on

Comment #	Response
	the drawings in Appendix A, the size is approximately 3,500 bbls.
OSLDF2-138	Employees and staffing are discussed in Section 2, Project Description. Approximately 15-20 employees per day, over two shifts with the night shift only being 2 people, would mean that up to 18 employees at a time might be onsite. This would exceed the 5 parking spaces shown in Appendix A. Details of the site parking and arrangements would be developed as part of the detailed permitting stage. Mitigation measures require all parking to be onsite.
OSLDF2-139	Table 2-13 has been revised to include traffic levels of concurrent operations and along specific access routes.
OSLDF2-140	Phase 1 of the Project includes equipment that is portable and that should have minimum or no decommissioning impacts. If the Project proves successful, decommissioning impacts would have to be evaluated at the end of the life of the Project through a separate environmental review and permitting process.
OSLDF2-141	The revised Draft EIR analyzes the only Project that has been proposed and for which a Conditional Use Permit has been requested pursuant to the Lease Agreement. Accordingly, consideration of any other Conditional Use Permit applications would merely be speculation and therefore is not appropriate for inclusion in the revised Draft EIR. While the commenter is correct that CEQA does not permit piecemealing, CEQA also does not require speculation or analysis of potential future projects that are not currently known. As the Project proposed is the only project currently being pursued pursuant to the Lease Agreement, no impermissible piecemealing has occurred. In addition, please see the response to comment OSLDF2-6 for further information regarding the scope of the Project. The commenter requests information regarding the nature and potential use of any revenues obtained from the leased land, but this information is speculative, unrelated to the environmental analysis of the proposed Project, and therefore is outside of the scope of the EIR.
OSLDF2-142	The revised Draft EIR analyzes the only project that has been proposed and for which a Conditional Use Permit has been requested pursuant to the Lease Agreement. Accordingly, consideration of any other Conditional Use Permit applications would merely be speculation and therefore is not appropriate for inclusion in the revised Draft EIR. CEQA does not require speculation or analysis of potential future projects that are not currently known. As the Project proposed is the only project currently being pursued pursuant to the Lease Agreement, no impermissible piecemealing has occurred. In addition, please see the response to comment OSLDF2-6 for further information regarding the scope of the Project.
OSLDF2-143	Proposition A relates to funding for the acquisition and purchase of public lands for purposes as specified therein, but does not control the City's use of lands that are removed from Proposition A purposes and for which the County of Los Angeles is compensated. Accordingly, Proposition A appropriately is not analyzed in the revised Draft EIR.
OSLDF2-144	Proposition A relates to funding for the acquisition and purchase of public lands for purposes as specified therein, but does not control the City's use of lands that are removed from Proposition A purposes and for which the County of Los Angeles is compensated. Accordingly, any land that may be identified to compensate for the removal of certain lands from Proposition A specifications is not mitigation for an adverse environmental impact and does not relate to physical changes in the environment. Accordingly, this discussion is beyond the scope of the revised Draft EIR.
OSLDF2-145	The commenter states that the EIR is inadequate because it does not include an opportunity for the public to review a Habitat Conservation Plan. The DEIR devotes a fairly lengthy paragraph to providing a useful overview of the federal Endangered Species Act and its potential applicability to the proposed project. There is no

Comment #	Response
	requirement to prepare a Habitat Conservation Plan if Section 7 consultation occurs, as it typically does, as a requirement of obtaining a Section 404 permit from the US Army Corps of Engineers. The DEIR specifies that the Project proponent shall consult with the USFWS to ensure compliance with the federal Endangered Species Act (Mitigation Measure BIO1-d). If, during the required consultation, the USFWS were to determine that additional mitigation would be required to achieve compliance with federal law, the Project proponent would be required to provide such mitigation in order to comply with both federal law and CEQA and specifically, obtain an Incidental Take Statement, if the USFWS determines that this is necessary. The commenters state that the public will not have an opportunity to review the Biological Assessment; however, the commenter already identifies that the application for an Incidental Take Permit requires preparation of a Biological Assessment and Habitat Conservation Plan (HCP), all of which, as stated in the comment requires: "a 30-day public comment period on the Incidental Take Permit application and associated HCP". In addition, CEQA guidelines do not require a combined document; as the commenter states, the lead agency should "try to prepare" a combined NEPA and CEQA document. Due to the level of complexity of the Proposed Project, the applicant would not have been able to present a reasonable project footprint or area of disturbance to the USFWS until the CEQA process had occurred. *BIO-1d The Project proponent or US Army Corps of Engineers shall consult with the US Fish and Wildlife Service to obtain an Incidental Take Statement if needed, pursuant to Section 7 or Section 10 of the federal Endangered Species Act to cover the Project's potential "take" (which includes the permanent and temporary loss of critical habitat and noise related disturbances) of the coastal California gnatcatcher, a federally listed species.*
OSLDF2-146	Cumulative impacts address the combination of the impacts of the Project evaluated in the Draft EIR together with other projects causing related impacts. The California Environmental Quality Act (CEQA) Guidelines direct the Lead Agency to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review with related impacts or which result in significant cumulative impacts. The cumulative analysis is based on a listing of planned projects provided by area agencies. The oil drilling at Honolulu Terrance and Sycamore Canyon do not have impacts on the same resources as the proposed Project and would therefore not present cumulative impacts for a majority of the issue areas. The proposed Project is that described in the Application submitted to the City and as described in Section 2.0, Project Description. There is not oil development proposed for any other areas. If oil development were proposed in other areas within the Habitat, then additional CEQA analysis would be required. Oil and gas pipelines that the proposed Project would tie-in to would not be affected by the increased throughput of gas. Release sizes and impacts are a function of the gas pipeline size, temperature, and pressure and, therefore, would not present cumulative impacts. Increased flow of crude oil through existing pipelines carrying crude oil would present a small, incremental increase in spill volumes and impacts over the existing potential for impacts if a release occurred, but the incremental increase in spill volumes would be small and systems located substantially downstream, such as Crimson pipelines and destination refineries, were considered to be outside the scope of the EIR.
OSLDF2-147	See response to comment OSLDF2-146
OSLDF2-148	Critical Habitat is designated under the federal Endangered Species Act, not CEQA or

Comment #	Response
	any other state law. As stated in MM Bio-1d: The Project proponent shall consult with the US Fish and Wildlife Service to obtain an Incidental Take Statement, if needed, pursuant to Section 7 or Section 10 of the federal Endangered Species Act to cover the Project's potential "take" (which includes the permanent and temporary loss of approximately 5 acres of critical habitat) of the coastal California gnatcatcher, a federally listed species. It is during this required consultation with the federal government to obtain an Incidental Take Statement that the Project proponent will have to demonstrate the Project's compliance with federal laws relating to Critical Habitat for the coastal California gnatcatcher. There is no nexus between the federal government's designation of Critical Habitat and the extent of the analysis of cumulative impacts that CEQA requires.
OSLDF2-149	The commenter's contrary opinion is noted, but the EIR biologists do not concur that all of the potential projects indicated at the commenter's comment require evaluation as part of this EIR's cumulative impact analysis. Note, however, that we have considered the ongoing Matrix oil operation in Sycamore Canyon, 3.5 miles northwest of the Project Site, and have evaluated the potential cumulative effects of project construction together with the ongoing Tehachapi Renewable Transmission Project in the La Cañada Verde watershed.
OSLDF2-150	The information in the Draft EIR is the information provided by the City of La Habra Heights and the Applicant. There are apparently some operations at the site related to the Gas Company (Sempra). Matrix does not feel that this is a feasible site for accessing the Whittier Main Oil Field. However, the Draft EIR indicates that 24-32% of the Whittier Main Oil Field reserves could potentially be accessed from this site.
OSLDF2-151	A map showing the location of all cumulative projects has been included in the Final EIR.
OSLDF2-152	The analysis included in this EIR is for the Project Description submitted by the Applicant under their Conditional Use Permit application with the City of Whittier. If the Applicant decides to apply for something different from what is proposed in this Project Description, the Applicant must submit a separate application to the City and a separate environmental review process would have to be conducted for that Project, if the Project differs substantially or is more impactful than the Project analyzed in this environmental document. Furthermore, any discussion regarding Conditional Use Permits for which the Applicant may apply in the future would merely be speculation, and therefore is not required by CEQA.
OSLDF2-153	The analysis included in this EIR is for the Project Description submitted by the Applicant under their Conditional Use Permit application with the City of Whittier. If the Applicant decides to apply for something different from what is proposed in this Project Description, the Applicant must submit a separate application to the City and a separate environmental review process would have to be conducted for that Project, if the Project differs substantially or is more impactful than the Project analyzed in this environmental document.
OSLDF2-154	Impacts of mitigation measures are analyzed in each issue area as appropriate.
OSLDF2-155	The Draft EIR describes the areas that are proposed to be impacted under the proposed Project Description within each of the environmental settings of each of the issues areas analyzed in the EIR. The settings described the general area of the Preserve and the specific areas to be impacted as a result of the Project. While the Project would mine the oil and gas resources under the 1,290 acres owned by the City of Whittier, the aboveground impacts are limited to those areas described in the Project Description. However, as appropriate, impacts to geological resources and other issue areas take into consideration the underground resources throughout the 1,290-acre site.
OSLDF2-156	The EIR analyzes the impacts of the Project within the areas directly impacted by grading and construction, and also the overall impacts on the Preserve as a result of the

Comment #	Response
	Project as described in the comment.
OSLDF2-157	Impacts to Wildlife corridors are analyzed in Section 4.2, Biological Resources and mitigation measures are identified to mitigate those impacts.
OSLDF2-158	The EIR analyzes the full extent of the proposed Project covered under the Applicant's Conditional Use Permit application. The remainder of the comment relates to the commenter's position that piecemealing has occurred (a comment with which the EIR preparers disagree) but does not raise a specific comment on the revised Draft EIR. Accordingly, no further response is required.
OSLDF2-159	Please see responses to comments OSLDF2-146, 152, and 153.
OSLDF2-160	Address information on complaints is not public information. However, Appendix H, Socioeconomics, includes a map of the complaint locations. The phone log data is the data available at the time of the issuance of the Draft EIR. The use of odor mitigation at the Honolulu Site during the odor events is not known.
OSLDF2-161	The SCAQMD has limits on flare operations in the permit to operate for the Honolulu Terrace facility and the SCAQMD provides compliance oversight for its permits. Operations associated with Honolulu Terrace calls for information outside of the scope of this project and EIR.
OSLDF2-162	Table 4.1-6 demonstrates that there was a period when Matrix had some odor issues. However, the table also demonstrates that odor issues have improved in the last 5 years.
OSLDF2-163	Detailed calculations and analysis are provided in Section 4.1 and Appendix B of the Draft EIR.
OSLDF2-164	Impact AQ.1 discussion indicates the emissions thresholds that are exceeded.
OSLDF2-165	The construction activities in Table 4.1-9 that occur simultaneously are grading and pipeline construction as well as operational emissions from testing. With mitigation, the grading+pipeline+testing emissions, would still be more than the thresholds. Although there potentially is mitigation that could help to reduce impacts (although not to less than significant), because the necessary equipment may not be available, the mitigation is not certain; and impacts remain significant and unavoidable.
OSLDF2-166	All assumptions associated with the air quality emissions calculations are included in the Appendix B. As there are numerous assumptions and inputs to air emissions calculations, these have been left in the Appendix B.
OSLDF2-167	The 15.9 lbs/day in Table 4.1-9 is for the emissions of particulate matter from all sources only during the pad clearing period associated with preparation of the pad for the test drilling. During this phase, there would not be any grading and minimal disturbed area. Table 4.1-9 shows that the estimated fugitive dust emissions associated with pad grading would total 52.9 lbs/day. The details of the inputs associated with these calculations are included in Appendix A. The primary difference between the commentors URBEMIS calculations and the calculations presented in the Draft EIR are that the newer algorithms are used for fugitive dust (as per CalEEMOD), that the SCAQMD handbook of emission factors is used as well as URBEMIS, which differs associated with fugitive dust, and the selection of the amount of active disturbed area on any given day is less in the Draft EIR. Note that the CalEEMod, which is the updated URBEMIS, estimates substantially lower fugitive dust emissions from grading than URBEMIS does based on studies by the Western Surface Coal Mining included in AP-42. These estimates are based on grader width and total area graded per day. Note that Appendix A to the CalEEMOD indicates that a single grader would produce less than 1 lb/day of fugitive dust, which is substantially less than the Draft EIR or the commenter estimates are. To be conservative, the amount of active disturbed area was increased to 1 acre in the Final EIR and PM_{10} emissions from fugitive dust from all activities during the grading phase would therefore be increased to 97 lb/day. This would be above the localized thresholds. Mitigation would reduce these emissions to less than significant.
OSLDF2-168	In order to address offsite distances that are not defined by the Applicant, the Draft

Comment #	Response
	EIR utilizes the average trip distances defined by County in the URBEMIS program. This distance is 27 miles roundtrip for LA County.
OSLDF2-169	The Landfill would be allowed to accept non-hazardous hydrocarbon impacted soils, as most of any soils that would be impacted at the proposed Project Site would most likely be. Hazardous materials are not anticipated at the site and are therefore not accounted for in the air quality analysis. However, if hazardous materials are encountered, the emissions generated by offsite trips would contribute to an impact that is already identified in the Draft EIR as a significant and unavoidable impact. Mitigation measures applicable to offsite trips would also be applicable to any trucks trips visiting different landfills. The waste generated from site clearing would be either taken to the Savage Canyon Landfill or chipped on-site, as per the Habitat Authority's comments. Although the Landfill is not equipped to process green waste, it can still accept it as a load.
OSLDF2-170	The text has been revised to match the table conclusions which indicate regional impacts for NOx only and local impacts for PM emissions.
OSLDF2-171	Fugitive dust is a common pollutant, both anthropogenic and natural, wind-blown dust. Impacts on wildlife would be minimized through the use of fugitive dust measures specified by the SCAQMD, including watering, limiting activities on windy days, etc. Polymer based dust suppressants, such as Soil Sement, which has been identified as providing in excess of 80% control (Desert Research Institute, 1996), has tested non-toxic to aquatic organisms including Ceriodaphnia dubia, fathead minnow, Americamysis bahia as per EPA test methods. Some toxicity has been shown towards rainbow trout, but at levels that are above those defined as the No Observable Effects Concentration. The material is made of Acrylic & Vinyl Acetate Polymer and water.
OSLDF2-172	Emissions from truck trips associated with testing are addressed under the operational emissions. Discussion of the operational emissions associated with testing has been added to the construction emissions discussion under residual impacts. This would contribute to an already significant and unavoidable impact for construction emissions.
OSLDF2-173	Paint and coatings emissions have been added to the construction emissions estimate based on URBEMIS emission factors and paint VOC content of 250 g/L, as per CARB limits for 2010.
OSLDF2-174	The SCAQMD has provided detailed comments of the Draft EIR. The only overlap is associated with testing emissions and construction, which has been included in the Final EIR. Drilling of wells, aside from the test wells, would not take place until construction is completed.
OSLDF2-175	The air quality thresholds are applied to individual and overlapping activities. A single summation column has been added to the tables in Section 4.1 in the Final EIR to indicate what the level is that is compared to the thresholds. Appendix B shows a number of scenarios that could produce the peak day.
OSLDF2-176	Appendix B on the Draft EIR CD also contains the spreadsheets used to calculate the emissions. In addition, the spreadsheets in pdf and excel format have numerous footnotes detailing the assumptions used in the calculations. As these are numerous, they are left in the Appendix for those readers that wish to examine the calculations more closely. Otherwise, the general assumption, in terms of equipment listings and use, are discussed in Section 2.0, Project Description.
OSLDF2-177	The residual section of AQ-2 has been revised to explain in detail the emissions that exceed the thresholds and the levels of significance.
OSLDF2-178	All operational components do not occur simultaneously. The test drilling would occur, then the testing period, then the operational period with drilling. These activities do not overlap.
OSLDF2-179	As defined by the SCAQMD, a significant impact related to odor would be a violation of rule 402 creating a nuisance. A nuisance is defined by the SCAQMD as six odor events per year or more. With mitigation, it is anticipated that there would be fewer

Comment #	Response
	than six odor events per year, thereby producing a less than significant impact. This has been added to the discussion in the Final EIR.
OSLDF2-180	The mitigation is not deferred as the impacts are known and are not a function of the results of the plan. Providing quantification and design systems to reduce odor emissions is established practice at oil fields in LA to ensure that all odor sources are addressed. Monitoring of the air in the immediate vicinity of the drilling activities ensures that any potential odor events are documented with meteorological data and air quality monitoring and can more definitively define the source of the odors.
OSLDF2-181	The flare would only be used in the event of a large well "kick" that would be redirected to the drilling flare system. This is not expected to occur on a regular basis. For example, at Baldwin Hills Oil Field, in the last year, they have drilled over 30 wells and the gas buster flare has not been used. The infrequent use would not contribute to air emissions.
OSLDF2-182	Significant odor event could still occur, but knowledge of the vapor recovery system operating parameters at the end-user (i.e., the tanks) ensures that the system is operating correctly and provides for immediate feedback to operators about the operating conditions. This technique has proven very beneficial to operators at the Baldwin Hills Oil Field in avoiding or minimizing odor events due to vapor recovery system failures. Note that, in order to be less than significant, odor events would, have to number les than six per year as per SCAQMD.
OSLDF2-183	Standards for elements to be included in the plan are included in the mitigation measure, including "*potential sources of odors from all oil field equipment, including wells and drilling operation, and measures to reduce or eliminate these odors, including containment, design modifications, carbon canisters, etc. The Plan shall address issues such as facility information, buffer zones, signs with contact information, logs of odor complaints, the protocol for handling odor complaints and odor event investigations and methods instituted to prevent a re-occurrence*." This would ensure that a system is developed for addressing potential odor sources in advance of issues, and establish a protocol for addressing odor issues if an odor event occurs.
OSLDF2-184	The Air Monitoring Plan would be developed as part of the detailed permitting stage associated with AQMD permits. The Air Monitoring Plan would be implemented in order to help determine if a release at the facilities causes an odor event in the residential neighborhoods, including information on wind. H2S and hydrocarbon levels would be substantially higher close to the facilities, where the monitors would be placed, than more than 1,000 feet downwind. Although the monitors cannot detect the smallest releases and lowest levels, they do help to enforce the requirements related to minimizing odor events. Impacts on employees are outside the scope of the EIR. Note that pentane and hexane would be detected by the hydrocarbon sensors and that any release of pentane and hexane would be part of a larger component mix that would be mostly methane, thereby increasing the level of hydrocarbon that would be detected. For example, 100 ppm hydrocarbon may contain only about 1-2% hexane/pentane.
OSLDF2-185	Hydrogen sulfide is very toxic and DOGGR has procedures to ensure that employee exposure remains below acceptable levels. Note that the gas at this field has been historically sweet (no H2S).
OSLDF2-186	Risks associated with acute impacts from accidental releases are based primarily on human exposure. The assumption is made that impacts to wildlife might also produce impacts, but that these would also be mitigated with similar measures as described in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. In general, impacts to sensitive species are primarily associated with habitat loss and disturbance and less so with accidental releases.
OSLDF2-187	Monitoring of the tank relief system is addressed under mitigation measure AQ-3b, which involves tank pressure monitoring.

Comment #	Response
OSLDF2-188	The GHG sequestration value of chaparral and the vegetation that would be removed is minimal, as per the existing forestry protocols, which do not take account of vegetation like chaparral. However, mitigation measure AE-1a requires the planting of vegetation, which would sequester carbon equal to any lost from clearing of the site.
OSLDF2-189	The Project is not anticipated to produce population growth, as discussed in Section 7.
OSLDF2-190	The SCAQMD thresholds are based on peak day emissions and none of the relatively minor additional construction activities proposed by other issue area mitigation measures would substantially affect the peak day emissions. Therefore, impacts would be less than significant.
OSLDF2-191	Health risk is primarily associated with the emissions from combustion equipment. As impact AQ.5 shows, the health risks with mitigation are quite low, below 1.0 cancer risks, or 10 times below the threshold. The addition of minor construction activities associated with the installation of sound walls, for example, would not contribute to the health risk levels.
OSLDF2-192	The SCAQMD threshold is 10 in a million for cancer, and the La Habra Heights Project would contribute 4, while the mitigated Project would contribute 0.5. Therefore, the cumulative health risks are less than significant.
OSLDF2-193	The Project does not generate sufficient traffic levels to justify a carbon monoxide hot spots analysis. The trips generated by the Project are estimated to be a small percentage of area traffic. Generally, only projects that generate thousands of trips per day perform carbon monoxide hot spots analysis (e.g., housing projects). For example, the EIR for the proposed housing project at Montebello performed a hot spots analysis as it generated an estimated 8,500 vehicles trips per day. It generated no impacts from CO emissions with a hot spots analysis. The worst case 1-hour CO concentration was estimated to be 5.4 ppm compared to the limit of 20 ppm. The 8-hour average was estimated to be 4.3 ppm with a limit of 9 ppm. Therefore, this Project would not generate CO impacts.
OSLDF2-194	The Draft EIR examined the impacts to local receptors in numerous areas, including health risk and localized impacts of criteria emissions. Modeling of localized impacts has been added to the Final EIR and the Appendix A to demonstrate that the project does not produce localized impacts.
OSLDF2-195	The commenter fails to add in the temporary disturbances of coastal sage scrub (0.86 acres) in the 8.03 acres of temporary disturbances which are mitigated at a 1:1 ratio. The wording of the mitigation measure adequately provides for the temporary disturbances to be mitigated.
OSLDF2-196	The 8.03 acres in question refers to the temporary construction and temporary parking disturbance columns (Total Vegetative Communities Disturbed) 3.27 + 0.72 + 4.04 = 8.03 acres.
OSLDF2-197	Comment restates mitigation measure BIO-2a.
OSLDF2-198	In response to the question of habitat disturbance and restoration: of the 40.44 acres of disturbance identified by this comment, 9.86 acres are disturbed due to noise impacts leaving 30.58 acres of habitat loss. Of these 30.58 acres of habitat loss, 9.45 acres are already considered disturbed habitats (roads, pads, or developed) leaving 21.13 acres of habitat loss. The new mitigation acreages are currently 27.41 acres for coastal sage scrub, noise impacts, and 1:1 replacement for temporary disturbances and 12.34 acres for disturbances to chaparral and annual grassland, which equals 39.75 acres of habitat replacement for 21.13 acres of habitat loss. Any additional disturbances resulting from a Project-specific geotechnical study would require the equivalent replacement/restoration ratios. Mitigation measure BIO-1b has been updated in the Final EIR.
OSLDF2-199	This Project would not impact 30 acres of California gnatcatcher habitat as suggested in this comment. The Project would disturb 4.16 acres of habitat for this species with an additional acreage being disturbed by edge effect impacts. Critical habitat refers to habitat that provides the constituent elements required by the species. The Draft EIR

Comment #	Response
	biologists believe that the replacement/restoration of 17.97 acres of this species' specific habitat (coastal sage scrub) would reduce impacts to this species, to its habitat, and to the critical habitat designated for this species, to less than significant.
OSLDF2-200	The Draft EIR's evaluation of potential impacts to California gnatcatchers includes the requirement of restoration of a 3:1 replacement ratio of impacts to coastal sage scrub and the 1:1 replacement of habitat within the edge effect. The evaluation of potential impacts upon California gnatcatchers is based upon review of the current relevant literature. As noted on page 4.2-21 of the Draft EIR, a 5-year study of the potential effects of construction upon California gnatcatchers and least Bell's vireos concluded that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor." The Draft EIR also included the following summary from the Birds of North America species account for the California gnatcatcher: > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). These findings indicate that California gnatcatchers have a relatively high tolerance for noise, and the commenter has not provided any contrary evidence to support the assertion that the Draft EIR failed to take into account the increased volume of traffic on the North Access Road during the Project's construction phase.
OSLDF2-201	The Draft EIR clearly states (impact BIO.4) that wildlife movement would be affected by the Project. However, impacts to wildlife corridors mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, 2, and 4), which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program.
OSLDF2-202	The Draft EIR biologists agree with the comment that the Project would be disruptive on the area's use as a wildlife nursery. The Draft EIR clearly states (impact BIO.4) that habitat that provides important functions such as wildlife nursery would be affected by the Project. The Draft EIR states on page 4.2-54: > "The Project Site, pipeline routes, and access roads are predominantly located in the La Cañada Verde watershed, within the Preserve's designated Core Habitat Management Zone, an area currently set aside for the sole purpose of providing undisturbed habitat for wildlife. The North Access Road is located deepest within the Core Habitat. This is the largest contiguous area in the Preserve that is well-buffered from such "edge effects" as lighting, noise, and intrusions by humans and domestic animals. It is an area that biologists characterize as a "native wildlife nursery site" for such species as the mule deer and bobcat. During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. The removal of native vegetation and non-native vegetation, including the removal of several eucalyptus trees required for the Processing Facility, would result in the loss of important nesting habitat for songbirds and raptors. These represent potentially significant adverse effects upon wildlife populations in the Preserve." It is the belief of the Draft EIR biologists that impacts to wildlife nursery area mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, BIO-2, and BIO-4)

Comment #	Response
	which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program.
OSLDF2-203	The commenters state that the implementation of the proposed Project is not consistent with the City's General Plan regarding open space. As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit. The discussion within Section 4.11 states partially as follows: "The Project Site is designated as open space of "high sensitivity" under the City of Whittier General Plan. Although many of the General Plan's open space policies identify the need to preserve and carefully manage such areas, the Plan also calls for a "balance between oil drilling activities and the protection of plant and animal communities in the hillsides." Oil and gas exploration and production are also allowed with a conditional use permit under Section 18.52.030."
OSLDF2-204	The commenters state that the Project is not consistent with the RMP. Within Section 4.11 the Draft EIR preparers discuss potential incompatibility issues with the Preserve's Resources Management Plan. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Approval of the Project would provide for funding to restore the site. As noted above, without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. Finally, the City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City's owned land that is part of the Preserve.
OSLDF2-205	The commenters state that the implementation of the proposed Project would contradict the mission statement of the Habitat Authority which is "dedicated to the acquisition, restoration, and management of open space in the Puente Hill... " However, as described under the Project Description in the Draft EIR: "Solid-waste disposal fees from the Puente Hills Landfill provide the primary funding for the Habitat Authority. This funding would continue through the remaining life of the landfill, currently scheduled to close in November 2013. The Puente Hills Landfill is owned by the County of Los Angeles and is managed by the Sanitation District of the Los Angeles County Solid Waste Management Department. The Oil and Gas Lease between the City of Whittier and Matrix provides for continuing funding for the Habitat Authority with annual administrative fees and mitigation fees upon issuance and acceptance of a CUP. A successful Project would provide a stable source of funding for the Habitat Authority for as long as the wells produce oil and gas."

Comment #	Response
	Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals of its Mission Statement.
OSLDF2-206	The Project Site is zoned as open space (OS) under the City of Whittier Municipal Code and the RMP designates most of the Preserve as a Preservation Management Zone which is detailed in the Regulatory setting of the Draft EIR.
OSLDF2-207	The Draft EIR addresses impacts to wetlands in impact BIO.2.
OSLDF2-208	No formal wetlands delineation study has yet been prepared for the proposed Project. Once the final project configuration has been determined through the California Environmental Quality Act review process, a jurisdictional delineation can be carried out in order to obtain the required permits and agreements, as specified in mitigation measure BIO-2b. The impact analysis conducted for the Draft EIR identified potentially significant impacts for all impacts to riparian habitat, and specified that 3:1 mitigation would be required for permanent impacts and 1:1 revegetation would be required for temporary impacts. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. Together, BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects would remain at a level less than significant.
OSLDF2-209	Mitigation measure BIO-1d requires consultation with the USFWS and the CDFG. In addition, mitigation measure BIO-2b requires that the Project proponent obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. The comments from the CDFG were not ignored as stated in this comment. In fact, the CDFG habitat replacement ratio recommendation was incorporated into the final mitigation ratio of 3:1 for loss of coastal sage scrub habitat.
OSLDF2-210	The "Project Site" refers to all pads, roads, and pipeline routes unless otherwise detailed. Appendix C includes the specific reports and biological surveys.
OSLDF2-211	Information on core habitats and open space designations are included in the regulatory setting discussion in Section 4.2, Biological Resources. Text in this section has been modified in the Final EIR.
OSLDF2-212	Text has been modified in the Final EIR.
OSLDF2-213	The City has copies of these studies and can make them available if necessary.
OSLDF2-214	Section 4.2.2.3, Local Resource Regulations, describes the Open Space and Core Habitat designations for the Project area. Figure 4.2-7 depicts the Project Site and the

Comment #	Response
	North Access Road (general location outlined in red) in the Core Habitat Management Zone.
OSLDF2-215	Page 4.2-21 (Riparian, Aquatic, or Otherwise Sensitive Natural Communities) describes the sensitive vegetative communities (riparian, coastal sage scrub, and wetlands) within the Project footprint area.
OSLDF2-216	Figure 4.2-3 has been changed to show the drainage names. Text has been updated in the Final EIR. Text has been changed to refer to habitat types "near" Project areas opposed to "on" the Project Site.
OSLDF2-217	Appendix C includes the specific reports and biological surveys and includes the maps of all areas surveyed.
OSLDF2-218	The "Project vicinity" refers to the habitat within the boundaries of the proposed Project and the area close enough to the Project boundary that could still be indirectly affected by the Project. Appendix C includes descriptions of the biological surveys conducted for this Project in the specific reports.
OSLDF2-220	"Project Site" refers to the area within the Project footprint. "Adjacent areas" refers to that area not within the vegetation removal boundary but that which could still be indirectly affected by the Project. "Local area" refers to the Preserve and surrounding habitat.
OSLDF2-221	Table 4.2-2 identifies both species as present near the Project area.
OSLDF2-222	The commenter is correct that a single California gnatcatcher was observed by Glenn Lukos Associates on June 2010. The occurrence of breeding California gnatcatchers in the area proposed for impacts is fully acknowledged in the Draft EIR, and is described in detail in the technical report by Glenn Lukos Associates, provided as part of Appendix C to the Draft EIR. The Cooper's hawk is an increasingly common resident and winter visitor in the region. It is not listed as threatened or endangered, and is not a California Species of Special Concern. The species is not any more rare or biologically sensitive than several other "California Special Animals" that occur commonly on the Project Site, such as the Allen's Hummingbird, California Thrasher. The Draft EIR's treatment of Cooper's hawk is in accordance with its known status in the region and mapping as requested in the comment is not necessary.
OSLDF2-223	The Draft EIR biologists do not concur with the commenter that Exhibit 3 in the Glenn Lukos Associates' report is, in fact, "important to an evaluation of roadway alternatives." One of the Draft EIR biologists, Robert Hamilton, has extensive experience with both species, and has also spent time evaluating the Project Site for its potential to support these species. In this instance, the Draft EIR biologists conclude that the most suitable habitat for these species is where the species have been found breeding, and this does not accord with the areas depicted on Exhibit 3. The fact that least Bell's vireos or California gnatcatchers might someday occupy one or more of the areas indicated is not highly relevant to evaluating roadway alternatives in the present.
OSLDF2-224	The Draft EIR states on pages 4.2-13, 4.2-18, and 4.2-37 that the USFWS designates the Project Site as critical habitat for the federally threatened coastal California gnatcatcher. Figures 2 and 3, previously provided by the commenters, simply show graphically that the USFWS has designated critical habitat across most of the Project Site and at least that part of the Preserve that is shown in the commenter's Figure 2. This is precisely what the Draft EIR states in multiple locations, and adding two more pages to the Draft EIR to show this graphically does not provide any additional benefit. The Draft EIR devotes a fairly lengthy paragraph to providing a useful overview of the federal Endangered Species Act and its potential applicability to the proposed Project.

Comment #	Response
	Although critical habitat is defined in the Endangered Species Act as areas that are "essential" for the conservation of a given listed species, impacts to critical habitat are regularly permitted by the US Fish and Wildlife Service (Service), especially for species listed as threatened, rather than endangered. The 3:1 mitigation ratio proposed for impacts to coastal sage scrub is at the high end of what the Service typically requires for the California gnatcatcher, even in designated critical habitat.
OSLDF2-225	Studies would be provided upon request.
OSLDF2-226	The construction activities associated with the production of construction noise was associated with grading activities and truck traffic. This is described in the discussion associated with impact N.1. Pile driving was not included. However, as noise associated with construction activities are allowed as long as the construction occurs within specified time limits; the addition of pile driving would not produce a significant and unavoidable impact. Impacts on biology would be temporary and would therefore be less than significant. The Project would result in noise impacts to birds and other wildlife and the EIR states on page 4.2-45: > The limited area where levels are expected to increase to 60-70 dBA could be avoided by some special-status species, among them the coastal California gnatcatcher, a listed species known to occur within coastal sage scrub and riparian habitats in the local area. Therefore, increasing noise levels above 60 dBA within 5.49 acres of preserved coastal sage scrub habitat and 0.75 acres of preserved riparian habitat are identified as a potentially significant, temporary adverse effect on the gnatcatcher and its habitats. Mitigation measure BIO-4 is designed to reduce noise impacts to wildlife species. Mitigation measures N-1a and N-1a, N-2a through N-2c, and N4 would also reduce noise impacts. Lastly, the increased noise associated with the implementation of the proposed Project, or any alternative, would represent a cumulatively considerable increase in the level of noise in the Preserve. Mitigation measure CUMULATIVE BIO-1 would reduce this cumulative impact to be less than significant. This action, taken as part of the Project currently being proposed, would substantially reduce ongoing noise impacts to wildlife populations in the local area due to oil drilling, effectively mitigating the Project's cumulatively considerable contribution to noise impacts in the Whittier Hills.
OSLDF2-227	The Draft EIR impact analysis uses 60 dBA as its threshold to assign mitigation. Information has been added to the FEIR to indicate that noise levels above 60 DBA have been assessed and assumed to cause impacts thereby requiring re-vegetation and habitat restoration as mitigation under impact BIO.1.
OSLDF2-228	The LSA report did not provide any additional information on the upper level of noise other than "no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity).
OSLDF2-229	Text has been modified in the Final EIR.
OSLDF2-230	It is not clear how the previous public funds invested for restoration are applicable to this Project. The EIR analyzes the impacts of the proposed projects and provides mitigation that includes restoration at various ratios, depending on the nature of the habitat potentially disturbed.
OSLDF2-231	The Draft EIR's analysis considers different state and federal regulations concerning sensitive species, wetland protection, endangered species, critical habitat, riparian habitat protection, and sensitive habitat protection, which are discussed throughout the

Comment #	Response
	different impact discussions. The Draft EIR devotes a fairly lengthy paragraph to providing a useful overview of the federal Endangered Species Act and its potential applicability to the proposed Project. The Draft EIR biologists do not share the commenter's opinion that a CEQA document prepared under state law is required to go into great detail about the content of various federal laws. Mitigation measure BIO-2b requires the Applicant to consult with the USACE, LARWQCB, and CDFG. Finally, the discussion of impact BIO.5 discusses the land use consistency analysis for local plans and policies (Whittier General Plan and RMP).
OSLDF2-232	The recommended text describing the specific Critical Habitat, Unit 9 has been added to discussion of sensitive habitats in the Final EIR. In addition, text has been added to the regulatory setting discussion.
OSLDF2-233	The recommended text describing the specific Critical Habitat, Unit 9 has been added to discussion of sensitive habitats, on page 4.2-21 of the Draft EIR. The Draft EIR identifies mitigation measures that the Draft EIR preparer and Lead Agency consider adequate, under CEQA, to reduce the project's impacts and potential impacts to the California gnatcatcher and Critical Habitat to a level less than significant. In addition, mitigation measureBIO-1d requires consultation with the USFWS to ensure compliance with the federal Endangered Species Act. If, during the required consultation, the USFWS determines that additional mitigation would be required to achieve compliance with federal law, based upon new information, the Project proponent would be required to provide such mitigation to comply with both federal law and CEQA (since mitigation measure BIO-1d specifies that the Project proponent shall obtain an Incidental Take Statement, if the USFWS determines that this is necessary).
OSLDF2-234	Please see the response to comment OSLDF2-224.
OSLDF2-235	Please see the response to comment OSLDF2-68.
OSLDF2-236	Please see the response to commentOSLDF2-208.
OSLDF2-237	Please see the response to comment OSLDF2-203.
OSLDF2-238	Please see the response to comment OSLDF2-205.
OSLDF2-239	The Draft EIR already clearly states that the Project would conflict with RMP Section 5.1.2, which refers to Core Habitat.
OSLDF2-240	Figure 4.2-3 has been changed to include the drainage names.
OSLDF2-241	For the areas that are within the City of Whittier, the most applicable plans used in the Draft EIR's analysis of consistency is the City of Whittier General Plan. The County's general plan is only applicable for the small portion of the pipeline located outside of the City of Whittier and within the County's jurisdiction as discussed in Section 4.11, Land Use.
OSLDF2-242	The most applicable plans used in the Draft EIR's analysis of consistency with local plans were the City of Whittier General Plan and the Habitat Authority's RMP.
OSLDF2-243	Table 4.2-3 breaks out the disturbed areas by pads and roadways, whereas Appendix A does not. Therefore, the roadway located immediately adjacent to the pads areas is counted as disturbed area in Appendix A, but is within the roads disturbed area in Table 4.2-3. Note that the area of the pad, the 6.9 acres, is the same in Appendix A and Table 4.2-3. Information on areas on page ES-4 and Table 2-3 in the Draft EIR agree with Table 4.2-3, with some losses due to rounding error. The table cannot add tallies for rows because some rows are temporary disturbances, some rows are acreages of noise impacts, and some rows are permanent loss of habitat. BIO-1c would not result in additional disturbances because this mitigation measure

Comment #	Response
	protects topsoil. Mitigation measure BIO-4n would not result in any new impacts because all of the proposed re-routes would occur in previously disturbed habitats or existing trails.
OSLDF2-244	The Draft EIR does not understate the presence of California gnatcatchers. Figure 4.2-3 shows all of the individual sightings and includes the family unit as "CAGN Occupied Habitat." However, the information in Table 4.2-2 has been modified.
OSLDF2-245	Figure 4.2-3 already accounts for these two sightings in Table 4.2-3.
OSLDF2-246	Please see the response to comment OSLDF2-223.
OSLDF2-247	The entire Project area is not all California gnatcatcher habitat, nor does it all possess the constituent elements that are required to consider it essential to this species. The Project would disturb 4.16 acres of coastal scrub habitat for this species with an additional acreage being disturbed by edge effect and noise impacts. Critical habitat refers to that habitat that provides the constituent elements required by the species. Disturbed habitats, non-native grasslands, roads and pads do not provide habitat for this species, do not contain the constituent elements required by this species, and therefore, impacts to these areas (part of the total loss of 30 acres) do not represent a loss of critical habitat for this species. The Draft EIR biologists believe that the replacement/restoration of 17.97 acres of this species' specific habitat (coastal sage scrub) would reduce impacts to this species, to its habitat, and to the critical habitat designated for this species, to less than significant levels. The Draft EIR provides a useful overview of the federal Endangered Species Act and its potential applicability to the proposed Project. Although critical habitat is defined in the Endangered Species Act as areas that are "essential" for the conservation of a given listed species, impacts to critical habitat are regularly permitted by the US Fish and Wildlife Service (Service), especially for species listed as threatened, rather than endangered. The 3:1 mitigation ratio proposed for impacts to coastal sage scrub is at the high end of what the Service typically requires for the California gnatcatcher, even in designated critical habitat.
OSLDF2-248	The USFWS has commonly issued permits that result in impacts to critical habitat, especially for species listed as threatened, rather than endangered. Historically, the small potential magnitude of the impact expected from this Project would not constitute significant and unavoidable impacts.
OSLDF2-249	Some Project elements (improvements and hauling on North Access Road) would occur in or near occupied California gnatcatcher habitat. However, the Draft EIR has provided mitigation restricting the timing of vegetation removal to avoid this species' nesting season (mitigation measure BIO-4e) and has demonstrated that this species has shown resilience to the level of noise anticipated from ongoing hauling activities anticipated near or within the occupied habitat. In addition, the Project proponent is required to consult with the USFWS to ensure compliance with the federal Endangered Species Act. If, during the required consultation, the USFWS determines that additional mitigation would be required to achieve compliance with federal law, based upon new information, the Project proponent would be required to provide such mitigation to comply with both federal law and CEQA.
OSLDF2-250	Please see the responses to comments OSLDF2-247 and 249.
OSLDF2-251	Please see the responses to comments OSLDF2-247.
OSLDF2-252	The Draft EIR preparers conclude that acquiring an additional 40 acres of habitat as recommended in this comment, would be beyond the scope of what CEQA requires based upon the Draft EIR biologists' analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources. CEQA Section 15126.4(a)(4)(A) and (B) state: "(4) Mitigation measures must be consistent with all applicable constitutional requirements, including the following: (A) There must be an essential nexus (i.e. connection) between the mitigation measure and a legitimate governmental interest. *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987); and

Comment #	Response
	(B) The mitigation measure must be "roughly proportional" to the impacts of the project. *Dolan v. City of Tigard*, 512 U.S. 374 (1994). Where the mitigation measure is an *ad hoc* exaction, it must be "roughly proportional" to the impacts of the project. *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854." Imposing additional mitigation that is not required per the nexus and rough proportionality test stated above would not be consistent with CEQA Guidelines.
OSLDF2-253	The Draft EIR does fully identify impacts to the American peregrine falcon, western spadefoot, coastal western whiptail, San Bernardino ringneck snake, Cooper's hawk, Costa's hummingbird, Allen's hummingbird, Nuttall's woodpecker, California thrasher, yellow-breasted chat, southern California rufous-crowned sparrow, Yuma myotis, western red bat, western yellow bat, hoary bat, pallid bat, mountain lion, and San Diego desert woodrat. Those not specifically addressed in the Draft EIR's impact analysis "were determined to have only limited potential for occurrence on the Project Site or are 'California Special Animals' that are widespread in the Puente-Chino Hills and elsewhere in the region. Impacts to these species are considered to be potentially adverse, but less than significant." Mitigation proposed for habitat replacement (BIO-1 and BIO-2) and wildlife protection measures in BIO-4 would further reduce these adverse impacts to these species.
OSLDF2-254	The Draft EIR provides 3:1 replacement for both Coastal scrub and riparian habitats and mitigation measure BIO-1b in the Final EIR has been modified to add 1:1 replacement ratio for the loss of chaparral and annual grassland habitats.
OSLDF2-255	The commenters state that the proposed Project would impact previously restored habitat at the Arroyo Pescadero and former Chevron Property restoration areas. As shown in Figure 4.2-8 none of the proposed actions would occur in the former Chevron Property restoration area. The Loop Road and transfer station would be located near and through the Arroyo Pescadero restoration area; however, all elements of the Project would be contained on previously disturbed habitat or existing roads in the area of the previous restoration area.
OSLDF2-256	The Draft EIR does identify how the Loop Road would be connected to Colima Road and identifies whether the acreage for this connection has been included in the estimates of habitat impacts. Page 2-20 of the Draft EIR's Project Description states: In addition, the Loop Trail Road (4,100 feet) may need to be widened to 20 feet according to Fire Department requirements for a secondary access route to the facility from Colima Road. This would impact approximately 1.7 acres, including the existing roadway, with approximately 0.3 acres newly disturbed. Page 4.2-38 of the Draft EIR states: Those portions of the Project (Loop Road, metering station, and underground oil and gas production pipelines) within the Arroyo Pescadero watershed are within a designated Preservation Management Zone. Page 4.2-42 of the Draft EIR states: Project implementation would include vegetation removal for Well Pad construction, Processing Pad construction, road widening and realignment, vegetation clearing on the sides of facilities and roads for fire requirements, the construction of new underground oil and gas production pipelines along the Loop Road, and the installation of an underground electrical power line along the main access road from the Project Site to the tie-in of the SCE Line at Ocean View Ave. In addition, Table 4.2-3 includes acreages by habitat type for the Loop Road if LACoFD requires vegetation clearing for this secondary access road.
OSLDF2-257	Impacts to coastal sage scrub could be considered under discussion of loss of sensitive

Comment #	Response
	habitats (Threshold 2); however, the mitigation proposed for the protection of the sensitive California gnatcatcher takes precedence and is therefore discussed first under Threshold 1.
OSLDF2-258	All restoration efforts including the duration of monitoring and maintenance efforts would be coordinated with the City and the Habitat Authority who could increase the duration of monitoring from 5 years if the restoration goals are not being met. The Habitat Authority's Restoration Guidelines already state that the restoration contractors and monitors would be approved by the appropriate agencies including the USFWS.
OSLDF2-259	The Draft EIR has been changed to delete “temporary” from noise impacts discussed for impact BIO.1a. The discussion of impacts refers to drilling operations that could last for many years beyond the initial construction phase.
OSLDF2-260	The Draft EIR has been changed to include the reference to native, non-flammable species.
OSLDF2-261	Approval of restoration plans is now required by the City, Habitat Authority, CDFG, and USFWS prior to restoration efforts.
OSLDF2-262	Although habitat disturbances would be required to occur outside the nesting season of bird species, phasing the areas of the disturbance of approximately 20 acres of habitat for the proposed Project is not feasible and would actually act to increase the duration of impact resulting from construction related impacts on wildlife species.
OSLDF2-263	The Draft EIR text has been changed to requiring the USFWS approval for the conservation easement under BIO-1a.
OSLDF2-264	Mitigation measure BIO-1a already requires the Project proponent to mitigate the loss of habitat through habitat replacement. Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and it is not really pertinent to the Draft EIR. However, the Draft EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and City responsibilities.
OSLDF2-265	The Draft EIR does not include the requirement for an endowment for loss of critical habitat. The loss of critical habitat is mitigated through habitat replacement at a 3:1 replacement ratio. The USFWS can require additional mitigation, if they so desire, under their own permitting process.
OSLDF2-266	The Draft EIR text has been changed to include the requirement to translocate plant species as feasible.
OSLDF2-267	The Draft EIR text has been changed to include the requirement to have the USFWS approve the biological monitor; the measure already states that the monitor would ensure compliance of Project conditions and would have the authority to halt work if needed.
OSLDF2-268	Mitigation measure BIO-4m already requires all grading limits to be delineated by orange construction fencing and permanent signage every 50 feet along the fence stating “No Entry — Sensitive Habitat.” The City and the Habitat Authority shall approve the fencing prior to commencement of grading activities (including clearing and grubbing). Mitigation measure BIO-4k already requires that the biological monitor shall have the authority to temporarily halt activities if permit requirements and conditions are not being met. USFWS would have their own opportunity to require their approvals for fencing during their own permitting process.
OSLDF2-269	USFWS would have an opportunity to require their approvals for grading plans and photo-documentation during their permitting process.
OSLDF2-270	USFWS would have an opportunity to require their approvals for fencing during their permitting process.
OSLDF2-271	As stated on page 4.2-54 of the Draft EIR: The potential for oil spills and associated impacts to biological resources is limited by mitigation measures developed in Section 4.3, Risk of Upset, Hazards, and Hazardous Materials, and Section 4.8, Hydrology and Water Resources.

Comment #	Response
	Mitigation developed in Section 4.8 includes secondary containment around tanks; design of retention basins; Spill Prevention, Control and Countermeasure Plan; a Pipeline Management Plan; and the requirement of an Emergency Response Action Plan; all of which would act to limit the potential for onsite spills and associated significant impacts.
OSLDF2-272	Mitigation measure BIO-4k has been modified in the Final EIR.
OSLDF2-273	Specifics details for implementing conditions of approval, responsible parties, funding, and ensuring compliance once the grading plans are reviewed and approved would be addressed at the time the City issues grading permits. In addition, Section 8.0, Mitigation Monitoring Program, recommends mitigation and responsibilities that the City can amend during the approval process.
OSLDF2-274	The mitigation already states that all "revegetation efforts shall comply with the Habitat Authority's Restoration Guidelines." There is no need for further clarification.
OSLDF2-275	The Mitigation Monitoring Plan (page 4.2-76) already states that the Agency Consultation and Incidental Take Statement from the USFWS must be reviewed and approved prior to the City issuing any permits for work.
OSLDF2-276	The Draft EIR has provided evidence that the California gnatcatcher demonstrates a high level of tolerance for noise and construction activities. The heavy trucking activities would take place for only six months and traffic is proposed to drop substantially during the operations phase. The area of disturbance to this species preferred habitat for all road improvements is 0.6 acres and fuel modifications would disturb another 0.73 acres of coastal sage scrub which would all be restored at a 3:1 replacement ratio. The Final EIR has been modified. Implementing the proposed mitigation, including speed limits of 10 mph, traffic calming devices, and restricting traffic to daylight hours, would reduce impacts to less than significant. Although the number of truck trips would increase during the construction phase, the 6-month window of heavier truck trips on the North Access Road would be mitigated to less than significant by implementing mitigation measures described in the Draft EIR.
OSLDF2-277	Contrary to this comment, the Draft EIR has provided evidence that the California gnatcatcher demonstrates a high level of tolerance for noise and construction activities and that the 1:1 replacement ratio adequately mitigates for potential noise impacts. As further evidence of wildlife response to noise, the Draft EIR biologists provides the following monitoring efforts to demonstrate their experience with this specific issue: Robert Hamilton has been working as a wildlife biologist in coastal southern California since 1988, and in this time he has observed wildlife response to various types of construction activity. The most closely Mr. Hamilton has observed the response of a species reported to be highly sensitive to noise and vibration was between March 1 and May 15, 2010, Mr. Hamilton observed the response of nesting herons to renovation of existing walkways at Burton Chace Park, located in Marina del Rey, Los Angeles County. Of particular concern was the presence of 12 pairs of Black-crowned Night-Herons (*Nycticorax nycticorax*; BCNH) that were actively nesting in the park. The most intensive noise and vibration effects came on the afternoon of March 22, when an adult BCNH attending to small young in the nest was subjected to breaking of concrete approximately 40 feet away. During a period lasting 47 minutes, noise levels measured near the BCNH nest were generally in the range of 85–95 dBA, and in a few instances exceeded 100 dBA. Mr. Hamilton's contemporaneous field notes for this episode state: Attending adult BCNH looked up quickly at the first impact of the pneumatic hammer, and then bobbed its head a few times before assuming an alert, but still, posture; later, the bird preened, perhaps nervously, and stood up in the nest, but remained hunched over the young in the nest; the noise was very

Comment #	Response
	loud and sudden, and quite close to the nest, so this was close to a "worst-case scenario" in terms of construction activity below a nest site; by outward appearances, the attending adult BCNH was definitely concerned about the activity, but not disturbed enough to either vocalize, stretch its wings, or leave the nest. Later in the afternoon, Mr. Hamilton observed: BCNH sitting quietly on nest after standing and preening for a little over an hour; photo showing this; one nestling barely visible in nest; birds not vocalizing or behaving as if disturbed. In 2010, Mr. Hamilton monitored a pair of Cooper's Hawks (*Accipiter cooperii*) that nested in a eucalyptus grove immediately adjacent to an area of heavy construction at North High School in Torrance. Careful monitoring allowed the construction project to proceed on schedule and without major modifications, despite the hawks nesting directly above the area where a running track was being reworked and turf was being replaced, all with heavy machinery. Ultimately, Mr. Hamilton documented the successful fledging of six young hawks from this nest. At no time did these birds show any overt adverse response to the work going on beneath their nest, and the production of six fledglings was very high for this species. From 2006 through 2010, Mr. Hamilton monitored the dredging of Upper Newport Bay. The purpose of monitoring was been to ensure that dredge operations did not entail unnecessary adverse effects upon any of the listed and otherwise sensitive species that live in and around the bay. On occasion, Mr. Hamilton observed terns and/or skimmers nesting and roosting on islands in the bay respond to loud clanging of dredge buckets by taking flight, but the birds quickly returned and did not appear to suffer substantial adverse effects from these short-term disturbances. Currently, Mr. Hamilton is involved in a study of a colony of California Least Terns (*Sternula antillarum browni*) that nests on gravelly ovals located immediately adjacent to the runways at San Diego International Airport (Lindbergh Field). These listed birds have maintained a colony at this precarious location for decades, despite the periodic noise and vibration produced by takeoffs and landings of jets. Nesting herons, raptors, and terns are, in many settings, easily disturbed by human activity, but those occupying habitat fragments studied by Mr. Hamilton in southern California have shown themselves to be highly resilient even in areas adjacent to heavy construction and dredging operations.
OSLDF2-278	The noise contours were derived in Section 4.5, Noise and Vibration, from the operational noise levels associated with operations and drilling with mitigation. The noise contours for the North Access Road were derived from the peak construction traffic levels associated with soil hauling. The specific noise contour of 60 dBA (which includes expected noise levels during both construction and operational phases) used to assess impacts to breeding birds was based on research conducted by LSA Associates (as described in Section 4.2.1.2) who conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001). The Final Report concluded that California Gnatcatchers can live and reproduce successfully in close proximity to roads and that "no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity)." Text has been added to the Final EIR identifying potential effects on a critical wildlife

Comment #	Response
	movement linkage.
OSLDF2-279	Although the final geotechnical report has not been completed, no new grading would be permitted along the North Access Road beyond the current grading boundaries (as depicted in the Road Improvement Plan including in Appendix A). The habitat disturbance values included in Table 4.2-3 and habitat disturbance depicted in Figure 4.2-9 already include an anticipated 20-foot setback for retaining wall installation; no additional grading or vegetation removal beyond this 20 foot setback (and 10-foot fuel modification zone) would be permitted. In addition, the habitat replacement ratios would apply to all impacts to protected sensitive habitats and therefore, would increase if the drainage plan requires additional impacts to riparian habitat or drainages. In addition, the City would review the final grading plans prior to issuing permits to determine if there are any additional impacts to habitat resulting from final road, pipelines, and drainage plans. Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance once the grading plans are reviewed and approved would be addressed when the City issues permits. The Draft EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process. The mitigation already states that all "revegetation efforts shall comply with the Habitat Authority's Restoration Guidelines" and the Mitigation Monitoring Plan (page 4.2-76) already states that the Agency review must be reviewed and approved prior to the City issuing any permits for work allowing for agency review of final grading. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. That permitting process would only occur with the final grading elements based on the results of the geotechnical study. Together, mitigation measures BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects would remain at a level less than significant.
OSLDF2-280	The Mitigation Monitoring Plan (page 4.2-76) already states that the Agency review would occur prior to the City issuing any permits for work which would allow for agency review of final grading.
OSLDF2-281	Commenter states that Biology analysis is not consistent with Water Quality which states that spills could result in significant and unavoidable impacts to water resources. The Draft EIR does recognize significant and unavoidable impacts to both water quality and biological resources in Section 4.8. The Residual Impacts discussion for BIO-3b now states: *Residual Impacts* Implementing several mitigation measures, as well as infrastructure preventative maintenance, structural integrity tests, and routine inspections (as described Section 4.8, Hydrology and Water Resources), would reduce the likelihood and severity of potential spill and exposure impacts to sensitive biological resources to less than significant with mitigation. However, Section 4.8 identifies potential long-term significant impacts to biological resources from a potential spill from the facility involving crude oil or produced water. "Such spills could potentially result in water quality impacts to creeks and shallow groundwater. Small leaks or spills, which are contained and remediated quickly, may have minor or negligible

Comment #	Response
	impacts to water resources. In contrast, large spills, such as those that could be produced from a tank rupture at the processing facility, well blow-out, or pipeline rupture, could spread to surface waters and/or groundwater and may substantially degrade water quality, with potential long-term impacts to beneficial water uses and biological resources." Please note that a significant and unavoidable biological impact would not occur because no impacts are expected to occur to sensitive biological species as a result of an oil spill.
OSLDF2-282	It is the opinion of the Draft EIR preparers that implementing the prescribed mitigation measures, as well as the preventative measures described in the Biology and Water Quality sections which include maintenance, structural integrity tests, and routine inspections (as described Section 4.8, Hydrology and Water Resources), would reduce the likelihood and severity of potential spill and exposure impacts to sensitive biological resources to less than significant with mitigation. Significant and unavoidable impacts to water resources as a result of an oil spill remain as described in Section 4.8, Hydrology and Water Resources.
OSLDF2-283	The additional riprap and drainage feature was taken into account in the area of riparian disturbance included in Table 4.2-3. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. That permitting process would only occur with the final grading elements based on the results of the geotechnical study. Together, mitigation measures BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects would remain at a level less than significant.
OSLDF2-284	There was no formal wetland delineation conducted of the Project Site. The vegetative communities map provided to by LSA and the Habitat Authority was field checked and provided a sufficient level of detail to determine loss of riparian acreages. Once the final grading plan is finalized, the Project proponent would be required to conduct wetland delineation as part of the CDFG and USACE permitting process.
OSLDF2-285	Widening Catalina Road and the required fuel modification zone would impact riparian habitat and are already included in the acreages of habitat loss in Table 4.2-3 and depicted in Figure 4.2-8.
OSLDF2-286	The Arroyo Pescadero and La Canada Verde watersheds are biologically important. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. That permitting process would only occur with the final grading elements based on the results of the geotechnical study. Together, mitigation measures BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects would remain at a level less than significant.
OSLDF2-287	The commenters state that the Draft EIR should include a tank failure analysis and

Comment #	Response
	inundation study. Section 4.3 already states: According to Section 4.3, Safety, Risk of Upset, and Hazardous Materials Section, under worst-case conditions, maximum estimated spill volumes would be from a catastrophic failure of one of the largest crude oil tanks that have a capacity for approximately 11,000 barrels. The tank area would be surrounded by a concrete retaining wall, sufficient in height to retain 110 percent of the volume of the largest tank. Likewise, all other vessels throughout the facilities would be walled or bermed for spill containment. Although secondary containment would be present surrounding the storage tanks, the worst case scenario would involve a full release of the tank's contents as a result of severe seismically induced ground shaking and associated ground failure. The frequency of a release of crude oil from proposed storage/pumping areas, beyond proposed containment, would be once every 1,029,469 years. The Emergency Response Plan is typically developed during the permitting stage and is not required for a CEQA analysis. However, the specific contents of an Emergency Response Plan are described in Mitigation Measure BIO-3a and it includes the requirements to ensure the Emergency Response Plan fully mitigates the impacts and as such, does not constitute deferred mitigation.
OSLDF2-288	The Draft EIR already provides a figure depicting the Preserve Boundary, Core Habitat, and the Project Site area (Figure 4.2-7). The commenters state that the Draft EIR does not provide adequate mitigation for the loss of Core Habitat. The Draft EIR biologists concur with the commenter that designation of the Project vicinity as a "core habitat area" is relevant, and that it justifies efforts to minimize impacts and to provide greater mitigation ratios than might be required in a different setting. Nevertheless, there is not strong support in the literature that Project implementation, including all required mitigation measures, is likely to result in significant adverse effects on biological resources, including those in the Core Habitat area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter.
OSLDF2-289	Please see the responses to comments OSLDF2-201 and OSLDF2-202.
OSLDF2-290	The Draft EIR biologists conclude that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter. The Draft EIR preparers conclude that requiring additional mitigation as recommended in this comment, would be beyond the scope of what CEQA requires based upon the Draft EIR biologists' analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources. CEQA Section 15126.4(a)(4)(A) and (B) state: "(4) Mitigation measures must be consistent with all applicable constitutional requirements, including the following: (A) There must be an essential nexus (i.e. connection) between the mitigation measure and a legitimate governmental interest. *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987); and (B) The mitigation measure must be "roughly proportional" to the impacts of the project. *Dolan v. City of Tigard*, 512 U.S. 374 (1994). Where the mitigation measure is an *ad hoc* exaction, it must be "roughly proportional" to the impacts of the project. *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854." Imposing additional mitigation that is not required per the nexus and rough proportionality test stated above would not be consistent with CEQA Guidelines.
OSLDF2-291	Language in the Final EIR has been changed for clarification in response to this

Comment #	Response
	comment. The point that was trying to be made describing prior drilling activities at the Project Site was that those activities did not result in a permanent loss of suitable habitat for sensitive and other wildlife species as evidenced by the fact that bobcats are currently present in the area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling as proposed, with mitigation, would not have the dramatic level of impact upon bobcats suggested by the commenter.
OSLDF2-292	The loss of predominately non-native trees (eucalyptus) in the non-nesting season (as required in mitigation measure BIO-4) does not represent a substantial effect to nesting birds in an area with other abundant available habitat. The loss of native habitat is considered and would require habitat replacement at a 3:1 to 1:1 replacement ratio as required in mitigation measures BIO1 and BIO-2. The impacts to nesting were taken into consideration and therefore, seasonal constraints, monitoring, and designation of buffer areas were all required in BIO-4. The buffers designated to protect nesting songbirds and raptors are fairly standard for the area and have been reviewed by the CDFG without comment.
OSLDF2-293	The commenter states that the conclusion that the Project would not have significant impacts to bobcat and wildlife is unsupported. The Draft EIR biologists do not believe it is feasible to accurately determine what the effects of the Project would be on each of the various species of terrestrial mammal that likely occur in the area. However, it is the belief of the Draft EIR biologists that impacts to wildlife including bobcat, mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measures BIO-1, BIO-2, and BIO-4) which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program. We disagree with the commenter, however, that this opinion is unsupported. The following recent studies, among others, have been reviewed to ascertain the potential impacts of urban edges on different species: • Riley, S. P. D. 2006. Spatial Ecology of Bobcats and Gray Foxes in Urban and Rural Zones of a National Park. *Journal of Wildlife Management* 70:1425-1435. • Ordeñana, M. A., K. R. Crooks, E. E. Boydston, R. N. Fisher, L. M. Lyren, S. Siudyla, C. Haas, S. Harris, S. A. Hathaway, G. M. Turschak, A. K. Miles, and D. H. Van Vuren. 2010. The effects of urbanization on carnivore species distribution and richness. *Journal of Mammalogy* 91:1322-1331. Page 4.2-42 of the Draft EIR states, “During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. These represent potentially significant adverse effects upon wildlife populations in the Preserve. These indirect impacts to wildlife typically are not quantified beyond the extent of habitat removal due to the high variability of certain species’ response to increased noise, lighting, and human presence in different seasons, habitat types, and topography. Research indicates that bobcats are among the species known to avoid urban edges.” Ordeñana and colleagues found bobcats at 74% of “camera traps” (161 of 217) spread across 11 locations in coastal southern California, and they stated, “Coyotes and bobcats were distributed widely across southern California, suggesting their behavioral plasticity and adaptability relative to other large carnivore species.” Their Figure 2, a logistic regression model plotting “probability of occurrence” against “distance to urban edge,” shows that the probability of bobcat occurrence decreases from

Comment #	Response
	approximately 80% at 1500 m from the edge to approximately 70% at the urban edge itself. This moderate negative response of bobcats to urbanization does not support a conclusion that the proposed actions may be anticipated to result in a dramatic change in the bobcat's use of the La Cañada Verde watershed, either as a nursery site or as a movement corridor. Additionally, it is relevant that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, without resulting in significant, long-term, adverse effects on the local bobcat population. The Project's potential impacts on bobcats and other wildlife species would be adverse, but less than significant with provision of the required mitigation measures.
OSLDF2-294	The Draft EIR already provides an analysis of traffic trips on wildlife movement (considered on page 4.2-53) and states that the up to 84 truck trips are two-way trips. Table 2-13 has been updated to indicate the maximum number of truck tips that could occur by route. Section 4.2, Biological Resources, has been updated accordingly. The DEIR consistently uses round-trips throughout the report.
OSLDF2-295	Please see the response to comment OSLDF2-201.
OSLDF2-296	Please see the responses to comments OSLDF2-201 and OSLDF2-202.
OSLDF2-297	The Draft EIR preparers agree that "to the extent feasible" reduces the effectiveness of most mitigation measures. However, discussions could require the flexibility when the proposed mitigation (such as lighting restrictions) may come at odds with another concern such as safety or regulations requiring lighting. Also, some mitigation has been proposed that would be beneficial (i.e. transplanting natives out of harms' way) but not absolutely necessary because the Project proponent is still required to meet the restoration success criteria and therefore "as feasible" is warranted.
OSLDF2-298	Mitigation measure BIO-4c now restricts travelling on the North Access Road to daylight hours, defined as the hours after sunrise and before sunset, warrants some flexibility (which is specified in the mitigation measure) to allow for emergency actions or safety reasons.
OSLDF2-299	The designation of the Project vicinity as a Core Habitat Management Zone is relevant, and it justifies efforts to minimize impacts and to provide greater mitigation ratios than might be required in a different setting. Nevertheless, there is not strong support in the literature for the idea that project implementation, including all required mitigation measures, considered independently from impacts from other sources (i.e., cumulative effects), is likely to result in significant adverse effects on biological resources, including those in the Core Habitat area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations, and yet the wildlife populations persisted there. This is one reason that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter.
OSLDF2-300	Please see the responses to comments OSLDF2-203, OSLDF2-205, OSLDF2-238, and OSLDF2-239. The Draft EIR does identify inconsistencies; however, the City of Whittier is the ultimate determinant of consistency issues with the RMP, the General Plan, and funding issues for the Preserve.
OSLDF2-301	Please see the responses to comments OSLDF2-203, OSLDF2-205, OSLDF2-238, OSLDF2-239, and OSLDF-289.
OSLDF2-302	Please see the responses to comments OSLDF2-203, OSLDF2-205, OSLDF2-238, OSLDF2-239, and OSLDF-289.
OSLDF2-303	The City of Whittier is the ultimate determinant of consistency issues with funding issues for the Preserve.
OSLDF2-304	The City of Whittier is the ultimate determinant funding issues for the Preserve.
OSLDF2-305	Please see the responses to comments OSLDF-231.
OSLDF2-306	Please see the responses to comments OSLDF-241 and OSLDF2-242.
OSLDF2-307	Please see the responses to comments OSLDF2-201 and OSLDF2-202.

Comment #	Response
OSLDF2-308	• Section 4.2.5 of the Biology Resources analysis has considered the mitigation described in other resource sections and has included an analysis of impacts to biological resources. The analysis determined that mitigation measures would not result in additional significant impacts, and additional analysis or mitigation is not required. Specifically, the mitigation measures brought up by the commenter are addressed as follows:BIO-4n – Impacts of the new parking area are not expected because the area suggested to be used is previously disturbed. • N-1c - This area is addressed in Biology by providing revegetation and restoration at the same ratios as those required for the original location. • N-2a – There are no impacts to geology associated with noise barriers. The noise barriers would be placed within the footprint of the proposed facilities and would not cause any additional biological impacts. • BIO-4b – Light spillage would be controlled to the maximum extent feasible due to the need to ensure that worker safety is preserved. Specifics are provided for the mitigation measure to ensure it appropriately serves to mitigate lighting impacts within this constraint. • Geological mitigation – geological testing is only expected to have minimal impacts and it does not require any mitigation. • T-1d – The additional turning radius at Catalina Ave is not expected to have any impacts. It provides for a concrete sidewalk to be cut at the corner are and enhanced, no biological impacts would occur. Also, any potential impacts are only temporary, during the construction phase. • WR-1b – Drainage systems are not expected to cause any added impacts to biology or any other issue area beyond those contemplated for the proposed Project.
OSLDF2-309	It is beyond the scope of this CEQA analysis to include and review impacts including roadway and streambed alterations resulting from Matrix's Sycamore Canyon facility.
OSLDF2-310	The revised Draft EIR analyzes the only Project that has been proposed and for which a Conditional Use Permit has been requested pursuant to the Lease Agreement. Accordingly, consideration of any other Conditional Use Permit applications would merely be speculation and therefore is not appropriate for inclusion in the revised Draft EIR. In addition, please see the response to comment OSLDF2-6 for further information regarding the scope of the Project.
OSLDF2-311	The noise standard required in mitigation measure CUMULATIVE BIO-1, as written, requires the exterior noise standard at both the Sycamore Canyon operations pad boundary and the Preserve boundary, which are adjacent to one another.
OSLDF2-312	There is not strong support in the literature for the idea that Project implementation, including all required mitigation measures, is likely to result in significant adverse effects on biological resources. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter.
OSLDF2-313	No specific comment on the Draft EIR is included and, therefore, no response is provided.
OSLDF2-314	The geological testing that took place occurred under the provisions of the lease that allows "…surveying in support of the application for a Conditional Use Permit." The geological testing involved minimal disturbance in previously disturbed areas approved by the Habitat Authority and under their supervision. The City found the activities exempt from permits and the Habitat Authority imposed a series of requirements to ensure no impacts would occur. The Geotechnical studies are included as Appendix L.

Comment #	Response
OSLDF2-315	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-316	The conditions for testing of the soils and the compliance with the lease agreement related to soils testing is outside the scope of the EIR. See response to comment OSLDF2-314 above.
OSLDF2-317	Section 4.1, Safety and Risk, discusses the Honolulu Fire and includes a scenario in the risk analysis which is the same as the Whittier 2005 fire. Note that Honolulu Terrace is located very close to residences, within 100-150 feet, and the proposed project would be located 700 feet (from oil storage) and more than 1,000 feet from wells.
OSLDF2-318	Additional information on the 2005 Honolulu Terrace fire has been added to the Final EIR is Section 4.3, Safety and Risk.
OSLDF2-319	The installation of a gas pipeline to the Landfill has been removed by the Applicant
OSLDF2-320	There is the potential for a wildfire caused by the facility. However, with proper clearance, equipment and training, the impacts can be minimized.
OSLDF2-321	The Project Site referred to is consistent with how the Project Site is defined in Chapter 2, Project Description, Figure 2-6 and 2-7. Other aspects of the Project that were evaluated were called out as such, including the proposed sewer route, access roads, and proposed pipeline route. Although acknowledged that Figure 4.4-1 does not include the North Access Road, mitigation measures have been provided ensuring that these standard access roads would be constructed properly, including measures GR-1a and GR-1d.
OSLDF2-322	The Project Area referenced in Section 4.4 is consistent with the Project Area defined on Figure 2-5. It is not necessary to show the Alquist Priolo Zones, as no such zones are present within the Project Area. In the event proposed access roads traverse active fault zones, construction of such roads is legal, per UBC guidelines, and consistent with the Alquist Priolo Zone Act.
OSLDF2-323	The creeks in the Project Area were discussed in Section 4.8, Hydrology and Water Resources. However, additional text has been added to Section 4.4 to indicate that the creek is located adjacent to the proposed drilling pad.
OSLDF2-324	The last paragraph of page 4.4-7 indicates that "The Project Area appears to overlie the Coyote Hills segment of the thrust fault. This fault appears to have generated the 1987 Whittier Narrows earthquake."
OSLDF2-325	Additional text has been added in response to the comment.
OSLDF2-326	As indicated on page 4.4-10, "In fact, there is a 90 percent chance that these ground motions would not be exceeded. This probability level allows engineers to design structures for larger ground motions than what is expected during a 50 year interval." Regarding the roadway, see response to comment OSLDF2-323. Regarding fault shear of the wells, this is a reasonable estimate of what could possibly occur. The alternative to this scenario is that the well would not shut itself off and continue to be useful as a well. There is no impact in that scenario.
OSLDF2-327	Oil leaks at other locations are irrelevant to this CEQA analysis, other than the fact that oil leaks could occur in the Whittier Oil Field Project, as described in Impact GR.1 of Section 4.4 and Impact WR.4 of Section 4.8, Hydrology and Water Resources.
OSLDF2-328	Potential earthquake related impacts to oil infrastructure was described in Section 4.4.1.4, Earthquakes and Petroleum Facilities. Impacts to surrounding surface waters are described in Impact WR.4 of Section 4.8, Hydrology and Water Resources. A failure analysis was completed in Section 4.3, Risk of Upset. Design and sizing of specific facilities would occur during final project design, subsequent to the CEQA process.
OSLDF2-329	It is not clear how the suggested text relates to geological resources. Failure analysis as a result of an earthquake is contemplated in Section 4.3, Safety, Risk of Upset and

Comment #	Response
	Hazardous Materials.
OSLDF2-330	Changes have been made to the Final EIR in response to the comment.
OSLDF2-331	As stated in response to comment OSLDF-330 changes have been made to the Final EIR to include environmentally sensitive facilities and critical wells as delineated in DOGGR regulations.
OSLDF2-332	Mitigation Measure GR1-c addresses the changed configuration, with respect to geotechnical engineering. The access roads would be constructed per UBC requirements, as discussed in response to comment OSLDF2-322. Very few roadways are completely infeasible with unlimited engineering; therefore, it is reasonable to assume that the access roads would be feasible.
OSLDF2-333	Mitigation Measure GR1-c addresses the changed configuration, with respect to geotechnical engineering. The site configuration has not changed substantially to require any modification as suggested in the comment.
OSLDF2-334	Such mitigation is not required. The site configuration has not changed so dramatically that the conceptual grading plans are substantially different. In addition, Mitigation Measure GR1-c addresses the changed configuration, with respect to geotechnical engineering.
OSLDF2-335	See response to comment OSLDF2-322.
OSLDF2-336	Text has been added in response to the comment.
OSLDF2-337	Text has been added in response to the comment.
OSLDF2-338	As indicated on page 2-36, Fracturing" methods are rarely utilized in the Los Angeles Basin, since it consists mostly of very soft oil-saturated formations; Matrix has no plans to utilize fracturing in its proposed Whittier Main Field operations.
OSLDF2-339	See response to comment OSLDF2-338.
OSLDF2-340	The contradictory text has been revised in the Final EIR in response to the comment. The EIR does not need to demonstrate the geotechnical feasibility of constructing a sound wall. Such construction is routine and would be constructed according to Uniform Building Code and Los Angeles County building requirements. Geohydrologic impacts related to installation of rip-rap would include erosion, which is already addressed in the discussion of impact WR.2 in Section 4.8, Hydrology and Water Resources.
OSLDF2-341	It is unclear how the comment relates to geologic impacts. Cumulative effects of other drilling projects are considered in the EIR as part of the baseline.
OSLDF2-342	Unmitigated geologic impacts would result in rupture or leak during oil drilling operations, as discussed relevant to impact WR.4 in Section 4.8, Hydrology and Water Resources.
OSLDF2-343	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-344	Generally, noise monitoring is performed in areas where modeling of baseline noise levels is not possible, such as within the Preserve or in residential areas. Baseline and project noise levels along roadways can be accessed through the use of FHWA models, which can determine the noise levels changes due to an increase in roadway traffic due to the Project. Significance criteria are based on changes to noise levels along the roadway and the models provide relatively accurate assessments of this change.
OSLDF2-345	Monitoring was conducted at the School and at the Deer Loop Trail, which is located near the Ranger Residence. The Deer Loop Trail location is also located within the Preserve and was used to estimate noise levels within the Preserve. Section 4.5, Noise and Vibration, assesses potential noise impacts on human receptors and therefore noise levels within the Preserve far from human receptors was not assessed in section 4.5. Section 4.2, Biological Resources, addresses potential noise impacts on biological receptors and determines that noise levels above 60 dBA could produce impacts. The

Comment #	Response
	areas that could be exposed to noise levels above 60 dBA were determined through noise modeling, which accurately predicts the 60 dBA noise contour. Baseline noise monitoring would not be expected to change between the time of the monitoring and the issuance of the NOP.
OSLDF2-346	The measures implemented at the Honolulu Terrace facility included noise enclosures around pumps and compressors, silencers on engine exhaust, sealing of enclosure vents, installation of noise walls and barriers and noise dampening materials for pipeline handling on the drilling rig. These are the same measure applied as mitigation in the Draft EIR. This information has been added to the Final EIR.
OSLDF2-347	Noise readings at Sycamore Canyon and Honolulu Terrace would not provide additional value to the Draft EIR as noise measurements from other drilling operations is already provided. The mitigated impacts, with the full range of drilling and operational mitigation measures prescribed in the Draft EIR, are more applicable, and these are available from the Baldwin Hills Oil Field and were used in the Draft EIR.
OSLDF2-348	The California Environmental Quality Act analysis associated with the change in municipal code is out of the scope of this EIR. The strict, quantified noise standards in the previous municipal code inhibited the Police Department's response to complaints when noise levels were actually below the quantified standards but were disturbing neighbors. The previous code required the Police Department use noise monitoring equipment respond to noise complaints. Citizen testimony about unregulated noise disturbances led the City to change the noise elements in the Municipal Code. This change in the Municipal Code was unrelated to the Applicant's proposed Project. The Draft EIR attempts to address disturbance (loud, annoying, etc) by applying a criteria based on changes in noise levels (allowable increases of up to 3 dBA at residences) as opposed to just the General Plan guidelines. This is discussed in Section 4.5.2.5, Significance Criteria. However, the previous City of Whittier Municipal Code noise standards were modeled on the Los Angeles County Code, which would not apply to drilling or re-drilling work since, if the drilling is done in full compliance with the conditions of permits, is exempt from the Los Angeles County Code (12.08.570m2).
OSLDF2-349	The allowable noise levels as per the General Plan are based on the categories defined therein. As there is not a category for Preserves, the designation for Parks was used. A more stringent standard may be applicable in other jurisdictions, but the City of Whittier does not have a designation for a Preserve. However, the Draft EIR recognizes this issue and proposes a second set of threshold criteria based on increases over baseline levels. These are limited to increases of 5 dBA over the minimum 24 hour average hour, which is in the mid 40 dBA for the Preserve area. Baseline levels were measured at six locations around the Project area.
OSLDF2-350	Interior noise standards of 45 dBA are a standard occurrence in area municipal codes and standards. Generally, interior noise levels are attenuated by walls by about 15 dBA, depending on the type of construction. The current general plan guidelines on noise levels along with allowable increases in background noise levels were used for significance criteria. Generally, all codes and standards allow for construction related noise levels if the noises are limited in their time during the day, hence the different criteria for construction. Noise levels for drilling and operations produce an outside noise level of less than 50 dBA at the Rangers Residence and at the School building. This would produce well below 45 dBA indoors.
OSLDF2-351	The construction activities associated with the production of construction noise was associated with grading activities and truck traffic. This is described in the discussion associated with impact N.1. Pile driving was not included. However, as noise associated with construction activities are allowed as long as the construction occurs within specified time limits; the addition of pile driving would not produce a

Comment #	Response
	significant and unavoidable impact.
OSLDF2-352	Mitigation measure N-2c requires noise monitoring at nearby sensitive receptors. Mitigation measure N-2a indicates that "*the Plan shall be subject to City review and concurrence*". Mitigation measure N-2c requires that "*The City shall have the authority to shut-down operations and require additional mitigation if the noise criteria are exceeded"*
OSLDF2-353	Section 4.6, Aesthetics, address the impact of noise mitigation, including noise barriers, the 30 foot noise wall and the installation of noise barriers on the drilling rig, in Section 4.6.4.1.
OSLDF2-354	Detailed tables are included in Section 4.5, Noise and Vibration, showing the noise levels as baseline (without the Project) and with the Project and with the Project with mitigation.
OSLDF2-355	The noise level changes along Penn Street have been included in the Final EIR as per FHWA modeling and SoundPlan modeling.
OSLDF2-356	Noise impacts were discussed under impacts to California gnatcatcher (BIO-1) and for wildlife corridor impacts (BIO-4). Hauling activities during the construction phase, which includes up to 84 round trip truck trips per day during the construction phase, have the potential to disturb nesting birds including nesting California gnatcatchers and wildlife movement. The noise contour analysis describes noise levels higher than 60dBA on 8.4 acres of native or naturalized habitats located along the North Access Road which is identified as a temporary potentially significant impact. To mitigate the temporary impacts to native and naturalized habitats due to noise impacts associated with truck hauling on the North Access Road, the Applicant shall provide minimum 1:1 areal replacement of 8.4 acres of native habitat. In total, the Applicant shall restore 36.8 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero watersheds to native communities.
OSLDF2-357	Noise modeling along the North Access Road indicates that noise levels could exceed 60 dBA during the daytime during the soil export phase of the construction phase of the Project. Noise levels during other phases would be less than 60 dBA and were therefore determined to not produce impacts above the biological impact noise threshold. The impacts during the soil export would be mitigated through mitigation measures requiring development of habitat as offset at a given ratio. The specific noise contour of 60 dBA (which includes expected noise levels during both construction and operational phases) used to assess impacts to breeding birds was based on research conducted by LSA Associates (as described in Section 4.2.1.2) who conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001). The Final Report concluded that California Gnatcatchers can live and reproduce successfully in close proximity to roads and that "no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity)." The habitat loss described in Table 4.2-3 has been modified to include habitats impacted within the 60 dBA contour line near the North Haul Road.
OSLDF2-358	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-359	The Loop Trail Road as emergency fire access would not be paved. This has been clarified in the Final EIR. In addition, the Loop Trail Road as secondary fire access in the Draft EIR would rarely, if ever, be used and only if there was an emergency that required the Fire Department to need a secondary access. This is substantially different than access by vehicles on a daily basis within a recreational area as would be

Comment #	Response
	the case under the Loop Trail Road Alternative.
OSLDF2-360	Aerial views are not applicable to an aesthetic resources analysis as most people are not flying over the area. Aesthetics involves a detailed analysis of how the Project would look from existing views, or how it would affect the viewshed. This includes views from locations such as nearby residences, the school, and the recreational trails. Views from Google Earth provide no value to the EIR in terms of assessing the aesthetic impact. They are helpful for understanding the Project and the Project Description, and they are used in these sections.
OSLDF2-361	The number of wells at other Matrix facilities is not applicable to this EIR.
OSLDF2-362	The number of wells and level of production at other Matrix facilities is not applicable to this EIR. Note that during the first phase of the project, only three wells would be developed and would produce substantially less than the peak amount of 10,000 BPD with the full array of wells.
OSLDF2-363	The analysis produced in the Draft EIR is based on the equipment arrangement in Section 2, Project Description.
OSLDF2-364	Aerial views are not applicable to an aesthetic resources analysis as most people are not flying over the area. Views from Google Earth provide no value to the EIR in terms of assessing the aesthetic impact. They are helpful for understanding the Project and the Project Description, and they are used in that section.
OSLDF2-365	The use of berms as mitigation has been added to the respective sections of biological resources, geology and hydrology in the Final EIR. Impacts on noise of the berms, which could produce a reduction in noise levels at some receptors, are included in the Draft EIR.
OSLDF2-366	Studies on the effects of warning lights have not found that “steady-burning and red lights” are particularly attractive to migrating birds. The greatest dangers are from steady-burning lights of any color (including red). The recommendation of the studies is that those steady-burning lights be replaced with flashing lights (including red flashing lights). Therefore, while the EIR biologists believe that no lighting at all would be preferable to the red flashing light that has been proposed for the top of the drilling rig, specification of a red flashing light in Section 4.6 of the Draft EIR is consistent with current recommendations to minimize adverse effects upon migrating birds. The EIR biologists have determined that the potential effects of providing a flashing red light on top of the drilling rig upon wildlife are adverse, but not potentially significant.
OSLDF2-367	The visual impacts of the Phase 1 of the Project, during testing, would be similar to the drilling rig views of the proposed Project conducted during the operational drilling phase. This is because the test drilling would be conducted at the well cellar that is located at grade and not at the other well cellars that would be located within the area to be substantially graded. This information has been added to the Final EIR.
OSLDF2-368	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-369	Table 2-13 in the Draft EIR clearly defines the traffic trips associated with each activity. Additional information has been added to the Final EIR to summarize the trips associated with concurrent activities and along different access routes. The Traffic Analysis consistently used a PCE of 2 through the analysis for trucks.
OSLDF2-370	As indicated in Appendix E, Traffic Analysis, the 396 is a combination of the peak autos and the peak trucks, which occur at different times of the Project. Grading would create the greatest number of trucks while facility construction would create the greatest number of autos. This has been clarified in the main text, Section 4.7, Traffic.
OSLDF2-371	Appendix E provides details on all of the intersections and roadways segments. As there are a number of intersections and roadways, the tables become long and it is difficult to determine which intersections are impacted significantly. For readers who

Comment #	Response
	are interested in more details, Appendix E should be read also.
OSLDF2-372	Measure T-1c provides limits on traffic that can use Catalina Avenue. This could be enforced through counters placed within the roadways at the Entrance Gate or through the use of security guards and check-in requirements. These would be spot-checked by the City monitors. The limit of 40 vehicles per day includes a factor of two as a margin of safety over the allowable traffic level that would produce significant impacts through the traffic analysis for daily trips. Therefore, the PCE of trucks is included therein.
OSLDF2-373	Mitigation measures have been expanded to allow for truck access through the North Access Road only during the specified hours to address both the Landfill operating hours and the existing limits on parking along the south side of Penn Street.
OSLDF2-374	Impacts along Penn Street are not defined as significant and unavoidable due to traffic levels. Avoiding periods of events along Penn Street, which mitigation measure T-1f would do, would eliminate the potential for truck traffic during construction to cause potential impacts along with an event. Impacts would be less than significant.
OSLDF2-375	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about 2 to 6 trucks per day, with 6 being during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes a number of measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.
OSLDF2-376	Transit stops would be temporarily relocated during the construction phase and would be replaced after the pipeline construction is completed in that area. This would not be a significant impact as it would be temporary.
OSLDF2-377	Mitigation measures have been expanded to allow for truck access through the North Access Road only during the specified hours to address both the Landfill operating hours and the existing limits on parking along the south side of Penn Street.
OSLDF2-378	Issues within the Landfill are addressed through the historical use of the Landfill by substantially more trucks than this Project proposes. Historical operations along Penn Street are also demonstrated through historical uses that show Penn Street can handle this level of truck traffic. Some safety issues could arise if simultaneous use of Penn

Comment #	Response
	Street by project traffic and an event at the College occurs. This is addressed in mitigation measure T-1f through the requirement for advance planning and coordination.
OSLDF2-379	The Loop Trail Road would be a secondary emergency fire access only. The Loop Trail Road as secondary fire access in the Draft EIR would rarely, if ever, be used and only if there was an emergency that required the Fire Department to need a secondary access. Additional details of the use of this road are not relevant to impacts of the Project.
OSLDF2-380	The intersections most likely to be significantly impacted by the proposed Project were analyzed. Project traffic is not expected to make turning movements at Whittier Boulevard and Norwalk Boulevard or at Whittier Boulevard and Painter Avenue. These intersections will accommodate only minimal Project traffic and only through Project traffic and would not be significantly impacted by Project traffic.
OSLDF2-381	Appendix E, Traffic Analysis, addresses transportation and transit facilities.
OSLDF2-382	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response. Since the Project was changed sufficiently to warrant a new Draft EIR, these comment responses focus on this revised Draft EIR.
OSLDF2-383	The Project plans show small areas of riprap that are outside the creek. This riprap is designed as part of the overall site drainage and to provide drainage from the hills above the proposed site. There is no expected change to the drainage to the creek or modifications to the creek banks or stream flows.
OSLDF2-384	Information has been added and clarified about the watersheds in the area.
OSLDF2-385	Reducing offsite storm flows equal to or less than existing conditions involves standard engineering and is typical of most construction projects. Mitigation measures WR-1a and WR-1b require preparation of a drainage plan to ensure offsite storm flows do not increase compared to existing levels.
OSLDF2-386	Acreage of disturbance has been updated to reflect actual areas of disturbance as appropriate.
OSLDF2-387	Reducing offsite storm flows equal to or less than existing conditions involves standard engineering and is typical of most construction projects. Final design is not required during the CEQA process.
OSLDF2-388	Such mitigation is not required. Constructing drainage features within the area of conceptual grading involves standard engineering that is typical of most construction projects. Final design is not required during the CEQA process.
OSLDF2-389	The mitigation measures have been edited in response to the comment.
OSLDF2-390	The mitigation measures have been enhanced to ensure more accountability. Such mitigations are standard CEQA mitigations that would not be considered deferred mitigation, since a reasonable assumption can be made that such standard engineering practices would reduce impacts to less than significant levels, without having to provide final design engineering.
OSLDF2-391	Please see the response to comment OSLDF2-390.
OSLDF2-392	Text has been added in response to the comment.
OSLDF2-393	The text has been edited in response to the comment. This is standard common knowledge for this type of reservoir and is considered a statement of fact.
OSLDF2-394	The Draft EIR was provided to the DOGGR and they have provided comments on the document.
OSLDF2-395	As indicated, impacts are less than significant; therefore, these are recommended mitigation measures that are not required.
OSLDF2-396	Each of these criteria has been addressed in the document under the different impacts addressed in section 4.8 Hydrology. Impact WR.1 and WR.2 address changes to drainage patterns, impact WR.3 and WR.4 address impacts to surface water quality

Comment #	Response
	and impact WR.5 and WR.6 address potential impacts to aquifers and groundwater supplies.
OSLDF2-397	Please see the responses to comments OSLDF2-385 and OSLDF2-390.
OSLDF2-398	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response. Since the Project was changed sufficiently to warrant a new Draft EIR, these comment responses focus on this revised Draft EIR.
OSLDF2-399	Truck trips have assumed the worst case scenario including added truck trips for the purpose of sanitary facilities
OSLDF2-400	Please see the response to comment OSLDF2-385**.**
OSLDF2-401	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-402	The proposed Project could be potentially inconsistent with several goals and policies of the General Plan and not produce significant impacts with mitigation. The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed Project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part

Comment #	Response
	of the Preserve.
OSLDF2-403	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan and not produce significant impacts with mitigation. The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
OSLDF2-404	As stated in the Consistency Analysis for Policy 1.3, mitigation measures developed for related sections would minimize impacts and provide a pathway toward a natural balance between the various resources in the proposed Project area; however, some significant impacts would remain as a result of the proposed Project. Therefore, the proposed Project could be potentially inconsistent with this policy.
OSLDF2-405	No specific comment is provided on the environmental document and no additional response is provided.
OSLDF2-406	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan and not produce significant impacts with mitigation. The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed Project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
OSLDF2-407	The commenter's disagreement with the EIR's consistency analyses is acknowledged. Note that in addition to the consistency analysis in the Draft EIR, it is important to state the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site.
OSLDF2-408	ERMC Policy 1.2 consistency analysis has been changed to reflect 149,000 cubic

Comment #	Response
	yards of excavated soil to be transported off site. The commenter's disagreement with the EIR's consistency analyses is acknowledged. As stated in the consistency analyses for Policy 1.3, the proposed Project could be found potentially inconsistent with this policy. Regarding Policy 1.4, the commenter's disagreement with the EIR's consistency analysis is acknowledged. Note that in addition to the consistency analysis in the Draft EIR, it is important to state the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site.
OSLDF2-409	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan and not produce significant impacts with mitigation. The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
OSLDF2-410	As stated in Section 4.11, the Project is found to be consistent with the Municipal Code since oil and gas production is allowed under the zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Further, regarding consistency with noise provisions in the Municipal Code, mitigation measures stated in Section 4.5 Noise and Vibration are designed to reduce the noise impacts to surrounding receptors generated by the proposed Project. Implementation of these mitigation measures would reduce the impacts to less than significant.
OSLDF2-411	As stated in Section 4.11, the Project is found to be consistent with the Municipal Code since oil and gas production is allowed under the zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. However, the Draft EIR policy consistency analysis is preliminary. The decision makers will weigh the compatibility of the Project with the Municipal Code and the goals and policies of the General Plan in their consideration of the Project.

Comment #	Response
OSLDF2-412	Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City's owned land that is part of the Preserve. The RMP has not been adopted by the City and the RMP does not carry the same weight as the City's General Plan and Zoning Ordinance. Finally, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans."
OSLDF2-413	Mitigation measure BIO-1d addresses the Project's potential "take" of the coastal California gnatcatcher. Implementation of mitigation measures for Impact BIO.1 would result in an impact designated as less than significant with mitigation.
OSLDF2-414	The portions of the proposed Project (oil and gas pipeline) that fall within Los Angeles County jurisdiction are not located in a Significant Ecological Area (SEA). Pipelines within the County's jurisdiction will be located on existing streets. Therefore, analysis on impacts to County SEAs is not included in the Draft EIR.
OSLDF2-415	Proposition A relates to funding for the acquisition and purchase of public lands for purposes as specified therein, but does not control the City's use of lands that are removed from Proposition A purposes and for which the County of Los Angeles is compensated. Accordingly, Proposition A appropriately is not analyzed in the revised Draft EIR.
OSLDF2-416	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan and not produce significant impacts with mitigation. The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a

Comment #	Response
	level that is considered consistent with the goals and policies of the General Plan.
OSLDF2-417	Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City's owned land that is part of the Preserve. The RMP has not been adopted by the City and the RMP does not carry the same weight as the City's General Plan and Zoning Ordinance. Finally, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans."
OSLDF2-418	Mitigation measures for Impact BIO.1 address the Project's potential impacts on a "critical habitat". Implementation of mitigation measures for Impact BIO.1 would result in impacts designated as less than significant with mitigation.
OSLDF2-419	The portions of the proposed Project (oil and gas pipeline) that fall within Los Angeles County jurisdiction are not located in a Significant Ecological Area (SEA). Pipelines within the County's jurisdiction will be located on existing streets. Therefore, analysis on impacts to County SEAs is not included in the Draft EIR.
OSLDF2-420	Proposition A relates to funding for the acquisition and purchase of public lands for purposes as specified therein, but does not control the City's use of lands that are removed from Proposition A purposes and for which the County of Los Angeles is compensated. Accordingly, Proposition A appropriately is not analyzed in the revised Draft EIR.
OSLDF2-421	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-422	The Honolulu Terrace fire is discussed in Section 4.3, Safety and Risk. Costs of the fire are outside the scope of the Draft EIR. Discussions with the Fire Captain are merely presented in the Draft EIR.
OSLDF2-423	Impacts are defined as potentially significant because detailed design drawings are not available (impact FP.1). However, adherence to codes and standards are considered to be feasible and mitigable (mitigation measure SR-1b and FP-1c) and are generally confirmed at the time of the issuance of a Building and Safety and Fire Department permits and not at the CEQA stage.
OSLDF2-424	The impacts of routing a water pipeline to the Ocean View Reservoir have been discussed in Section 4.2.5 of Section 4.2, Biological Resources, which indicates that impacts would be less than significant. Connection to the Colima Road pipeline water main would follow the same pipeline route within the Preserve as the crude and gas pipelines and would have no additional impacts.

Comment #	Response
OSLDF2-425	Figure 4.2-1 shows the vegetative communities in the project site area and the installation of a pipeline from Catalina Avenue within the Preserve to the Ocean View reservoir could be completed through only grassland areas. Therefore, the mitigation measure is feasible.
OSLDF2-426	An emergency response plan would be prepared as part of the application for a permit from the LACoFD and the City.
OSLDF2-427	The Applicant indicates that fire clearance would be 20 feet from all pad boundaries. As the exact location of equipment within the pads has not been defined, it is not possible to know if all equipment has 30 feet of clearance. It is possible that some additional clearance may be required causing some additional biological impacts. However, these biological impacts are covered by mitigation measures in Section 4.2, Biological Resources, which define specific ratios for replacement of vegetation with the exact amount of replacement determined after the facility is designed and constructed.
OSLDF2-428	Mitigation measures have the potential to increase impacts in other issue areas. In order to address this potential, each issue area includes a discussion on the potential impacts associated with other issue area mitigation measures. For Fire Protection, there are no mitigation measures proposed in other issue areas which would increase fire protection issues.
OSLDF2-429	As the proposed Project would introduce only minimal increases in fire protection services, as per discussions with the Fire Department, and cumulative projects are not expected to over-burden the area Fire services, cumulative impacts would be less than significant.
OSLDF2-430	The Project Description as provided by the Applicant has sufficient information and detail in order to perform and comprehensive CEQA analysis and to understand the significant impacts that the project would produce.
OSLDF2-431	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-432	Additional information on the Savage Canyon Landfill is included in the Final EIR.
OSLDF2-433	Currently, the majority of green waste generated in Whittier is taken to the Puente Hills landfill for eventual end-use. The County is exploring the possibilities after the Puente Hills Landfill closure, including the use of Orange County facilities (see the County Sanitation Districts Of Los Angeles County Solid Waste Management Division website). The Habitat has indicated that chipping of green waste at the site would be acceptable, thereby negating the need for disposal. Only a small volume of green waste would be generated by the project and would not constitute more than a few truck trips. The Draft EIR indicates that materials designated as hazardous waste might be produced during drilling that could generate up to two truckloads per month. This waste would be hauled away by a local contractor. Contaminated soils, if they could not be accepted by the Savage Canyon Landfill as non-hazardous hydrocarbon impacted soils, would be shipped to the Kettleman Hill Class I landfill facility for treatment and ultimate disposal near Kettleman City, California at a distance of about 200 miles from Whittier. This distance information has been added to the Final EIR.
OSLDF2-434	Information on the regulatory requirements related to Landfill permits has been added to the Final EIR. Information on the Landfill permits is included in the Draft EIR.
OSLDF2-435	Additional information on the amount of materials generated and brought to the landfill has been added to the Final EIR. The Landfill has historically brought in as much as 4,000 tons of soil per day associated with the Community Church project. Soil is not classified as waste by the Landfill. The 5 tons per day is a City thresholds and that, in combination with the requirements for sufficient capacity at the Landfill, is used as the significance threshold.
OSLDF2-436	Additional information on the amount of materials generated and brought to the

Comment #	Response
	landfill has been added to the Final EIR. The Landfill has historically brought in as much as 4,000 tons of soil per day associated with the Community Church project. Soil is not classified as waste by the Landfill.
OSLDF2-437	The Draft EIR discusses wastes and the amounts generated in the Draft EIR as well as Section 4.13, Public Services. The amounts of wastes generated are discussed within the text under impact PS.1.
OSLDF2-438	The Landfill has historically acceptable high volumes of soil with other projects. Soil is used at the Landfill for cover of refuse, and therefore soil is needed by the Landfill. Typical soil trips into the Landfill average 14 truck trips per day, indicating that the Landfill utilizes the soils and, as historically is the case, would not have trouble accepting the soils from the Matrix Project.
OSLDF2-439	Close coordination with the City of Whittier Public Works Department has been a part of the Draft EIR process. Inspections of the potential roadways and communications with the Landfill and Public Works Department indicate that the trucks would be able to utilize the Landfill Road without impacting the Landfill operations. Note that historically, a much higher volume of trucks have entered and exited the Landfill for deposition of soils than the Project is proposing. Mitigation measures in Section 4.7, Traffic, (mitigation measure T-1f) include limits on the hours of truck traffic to those of the Landfill and the limits on parking along Penn Street.
OSLDF2-440	Information on the regulatory requirements related to Landfill permits has been added to the Final EIR. Information on the Landfill permits is included in the Draft EIR.
OSLDF2-441	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-442	Figure 4.14-3 in Section 4.14 has been modified to show the proposed Project Site.
OSLDF2-443	The Loop Trail Road would not be paved as part of this Project.
OSLDF2-444	There is an existing gate from Colima Road available for fire truck access that is currently used by the Preserve.
OSLDF2-445	Mitigation measure BIO-4n would limit access to portions of the trail network that could cause impacts to recreational resources. However, measures, as discussed in mitigation measure BIO-4n, would mitigate these impacts to a less than significant impact on recreational resources.
OSLDF2-446	As stated in mitigation measure BIO-4n, recreational access to the Arroyo San Miguel Trail would be closed during construction or drilling activities at the Drill Pad Site. As a result, the Arroyo San Miguel Trail could be temporarily closed to recreational use for approximately 8 years; for 90 days during Drilling and Testing (Phase I), 2 to 3 years during Design and Construction (Phase II), and 5 years during Operations and Maintenance (Phase III). However, as stated in mitigation measure BIO-4n, recreational access to the Arroyo San Miguel Trail on the east side of Colima Road could be maintained throughout all three phases by implementing one of three measures: (1) enhancing the parking area on the east side of Colima Road; (2) developing the parking area along La Flore Drive, approximately 1 mile east of Colima Road; or (3) developing pedestrian access along Colima Road from the Preserve parking area (on the west side of Colima Road) utilizing the new signalized intersection. The Loop Road is located on a portion of the existing Arroyo Pescadero Trailhead. The Loop Road may also serve as the Fire Department's secondary access route to the facility from Colima Road and may need to be widened to 20 feet. Both the Loop Trail Road modifications and the pipeline installation would take place during the Design and Construction Phase of the Project and would last approximately 2-3 months. Trails may be temporarily closed to recreational use during these activities

Comment #	Response
	for up to 2-3 months.
OSLDF2-447	Implementing mitigation measures N-1a and N-1b, N-2a through N-2c, and N-4 would reduce noise impacts to recreational users to less than significant.
OSLDF2-448	As stated in Section 4.14.5, projects that could create cumulative recreation impacts are those that would contribute to an incompatibility with the recreational use of the Preserve in combination with the proposed Project. None of the proposed residential, commercial, oil development, or institutional projects listed in Section 3.0, Cumulative Projects Description, would impact recreation at the Preserve in combination with the proposed Project. Therefore, cumulative recreational impacts are expected to be less than significant.
OSLDF2-449	If prior comments on the previous EIR have been attached as part of these comments, those comments are responded to separately. However, please be advised that comments that are not in reference to the current Project and this environmental document, may not be applicable and relevant and as such, merit no response.
OSLDF2-450	The Draft EIR is conservative on a number of impacts, including air quality construction impacts (which could be mitigated to less than significance but has been left as significant and unavoidable due to the potential for not having clean trucks or the ability to use the Savage Canyon Landfill for excess soils), air quality GHG emissions (due to potential for unavailability of mitigation measures), and the multiple counting of visual and noise impacts within aesthetics and land use and recreation.
OSLDF2-451	No specific mitigation measures where analysis is deferred is provided in this comment. However, the EIR preparers have reviewed all mitigation measures to ensure that no analysis has been deferred.
OSLDF2-452	Alternatives analysis is conducted in the EIR based on the Project Description submitted as part of the Conditional Use Permit Application submitted by the Applicant and the Project Objectives provided by the Applicant and the City of Whittier. Alternatives were then put through a screening analysis to come up with a set of feasible alternatives that lessened the impacts of the proposed Project, while meeting the main objectives of the Project. The analysis is broken down into separate components and the alternatives to those components for easier comprehension. The alternatives mentioned were discarded as part of the screening analysis because their impacts were found to be significantly higher than those of the proposed Project. Fewer wells were not analyzed because they would not meet the objectives of the Project and could render the Project infeasible. However, sufficient information is contained within the document for the decision-makers to consider a Project with less number of wells than the proposed Project. CEQA Section 15126.6 estates: *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible."*
OSLDF2-453	The analysis is broken down into separate components and the alternatives to those components for easier comprehension. Specific information on how the separate access points are applicable to the alternatives is included in the EIR. However, additional clarifying language has been added to the alternatives discussion in response to this comment.
OSLDF2-454	The La Habra Heights Pipeline Alternative was eliminated because it was speculative and infeasible. The existence of a pipeline that could carry the crude oil or gas in La

Comment #	Response
	Habra Heights could not be corroborated and building a pipeline connection within this area could create significant biological environmental impacts. As there were no significant and unavoidable impacts associated with the Colima Road pipeline, the La Habra Heights Pipeline Alternative was dropped from further consideration.
OSLDF2-455	Information used in determining the percentage of recoverable reserves was based on raw, proprietary data furnished by Matrix under a confidentiality agreement; however, the analysis of accessible reserves was conducted by the EIR preparers.
OSLDF2-456	The commenter alludes to the EIR preparers discarding alternatives that could be environmentally superior to those analyzed. However, no specific alternatives are mentioned that could lessen the environmental impacts associated with the Project and none are identified as environmentally superior.
OSLDF2-457	A preliminary screening analysis is provided and tables are included in Section 5 that provide information on the Alternatives and the impacts that would be more or less than the Proposed Project.
OSLDF2-458	The Upper Canada Canyon Consolidated Site is deeper within the Preserve than the proposed Project and closer to sensitive habitats. In addition, available space and pads within the area are not sufficiently stable to support the Project. Additional information has been added to the Final EIR as appropriate.
OSLDF2-459	Please see response to comment OSLDF2-458. Concerns related to the permitting of the North Access Roadway within the Landfill and the use of Landfill roadways for Project related traffic have been discussed with CalRecycle and, although a permit modification would most likely be required, it does appear feasible.
OSLDF2-460	Please see response to comment OSLDF2-458
OSLDF2-461	The Upper Colima Road Consolidated Site Alternative is screened out for a number of reasons, including impacts to recreational users, as a result of the need to close down trails; impacts to Biology, as a result of proximity to the Wildlife Tunnel; impacts to aesthetics, due to proximity to houses; air quality impacts, due to emissions, odors and sensitive receptors; noise and vibration impacts, as a result of close proximity to receptors; and impacts to risk, as a result of close proximity to the road and residences. For reference, all these impacts were previously analyzed as part of the East Well Pad Site under the previous Draft EIR for the earlier Matrix Project.
OSLDF2-462	The California Environmental Quality Act (CEQA) requires alternatives to be discussed to a level of detail consistent with the rule of reason. As stated under CEQA Section 15126.6(a), *"There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."* Also, under Section 15126.6(d) CEQA states, *"The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."* Under Section 15126.6(f) CEQA states, *"The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making."*
OSLDF2-463	No clear specific comment is included in the statement, so no additional response is merited.
OSLDF2-464	The alternatives analyzed in the screening analysis are not analyzed with the same

Comment #	Response
	level of detail as the alternatives carried for analysis in the EIR. However, calculations are made and analysis is made based on the areas presented and the topography to establish the parameters of the alternatives.
OSLDF2-465	This comment relates to the one off-site alternative analyzed in detail in the EIR. The EIR, through the screening analysis, looked at many more alternatives that were eventually discarded because of their inability to lessen the significant environmental impacts of the proposed Project. CEQA does not per se require a consideration of off-site alternatives (but instead focuses on including alternatives that are superior to the project impact-wise) and does not require consideration of alternatives that are not feasible. See 14 Cal Code Regs. § 15126.6(f). Accordingly, the revised Draft EIR appropriately analyzes those alternatives that are feasible and which could reduce project impacts.
OSLDF2-466	The Loop Trail Road that is part of the proposed Project is for secondary fire fighting access and would only be used in the event of a wildfire or a fire at the facilities. This use would be presumed to be very infrequent and would not produce noise or aesthetic impacts except in the event of an emergency, which would not be considered a significant impact. On the other hand, the Loop Trail Road as alternative access for the Project would have all truck and vehicle trips coming through that road on a daily basis and would generate noise and aesthetic impacts.
OSLDF2-467	Additional information on the regulations governing landfills is included in the Final EIR. Text regarding the types of revisions to permits, with references to the applicable codes governing the issuance of permits, are provided in the FEIR Section 4.11.2. The Landfill permit is available from the City Public Works Department.
OSLDF2-468	Additional information on the regulations governing landfills is included in the Final EIR. Text regarding the types of revisions to permits, with references to the applicable codes governing the issuance of permits, are provided in the FEIR Section 4.11.2. The Landfill permit is available from the City Public Works Department. Multiple attempts to clarify the issues related to permitting drilling operations at the Landfill with CalRecycle have been unsuccessful. Mr. Pelser, with the Public Works Department, indicated verbally that the permitting of any drilling at the landfill would be problematic. Therefore, the impacts associated with permitting a drilling project at an operating landfill were considered to be significant.
OSLDF2-469	Section 6.2 of the Draft EIR describes the No Project Alternative as the environmentally superior alternative and proceeds to select the next environmentally superior alternative as required by CEQA.
OSLDF2-470	Each issue area within the EIR contains a section specifically dedicated to analyzing the impacts of the mitigation measures and provides an analysis and discussion of those impacts as appropriate.
OSLDF2-471	See response to comment OSLDF2-472
OSLDF2-472	The Draft EIR describes the potential for growth inducing impacts as part of the proposed Project to be limited since the Project would occur within the Habitat Preserve and is proposed to occupy only a limited amount of land to be able to produce oil and gas. Oil and gas production is limited to what is proposed by the Applicant and is intended to be able to recover oil reserves below the 1,290 acres of City owned property within the Preserve. The Applicant has determined that the majority of the oil and gas reserves can be recovered with their proposed Project and no additional projects or surface acreage would be needed in the future to produce the oil and gas. Producing oil and gas within parks or preserves is not unprecedented. As an example, many units of the national park system currently produce energy, including: Alibates Flint Quarries National Monument, Aztec Ruins National Monument, Big Cypress National Preserve, Big Thicket National Preserve, Big South Fork National River and Recreation Area, Cuyahoga Valley National Park, Fort Union Trading Post National Historic Site, Gauley River National Recreation Area, Lake Meredith National Recreation Area, New River Gorge National River, Obed Wild and Scenic River,

Comment #	Response
	Padre Island National Seashore, and Tallgrass Prairie National Preserve. In short, allowing oil and gas production within the Puente Hills Native Habitat Preserve is not a unique situation and would not lead to either additional oil and gas development on other parks or preserves that may not be already contemplated, and does not constitute a growth inducing impact.
OSLDF2-473	Commenter's statements about the perceived inadequacy of the EIR are acknowledged. No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-474	Commenter's statements about the perceived need to recirculate the EIR are acknowledged. No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-475	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-476	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-477	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-478	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-479	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-480	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-481	Noise and biological impacts and comments made by this commenter have been responded to and addressed previously.
OSLDF2-482	Traffic comments made by this commenter have been responded to and addressed previously.
OSLDF2-483	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-484	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-485	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-486	No specific comment is included on the EIR and no additional response is needed.
OSLDF2-487	The Draft EIR does not include an analysis of impacts that are unknown, speculative and that could and could not occur in a distant future. The decommissioning of the Project, if the Project proves to be economical, would have to go through its own environmental review and permitting at the time that the Project reaches the end of its economic life.
OSLDF2-488	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-489	No specific comment is included on the Draft EIR and no additional response is needed.
OSLDF2-490	No specific comment is included on the Draft EIR and no additional response is needed.

Rivers and Mountains Conservancy

Comment #	Response
RMC-1	The Draft EIR addresses the importance of the Whittier-Puente Hills habitat.
RMC-2	Designation of the Project vicinity as a "core habitat area" is relevant, and it justifies efforts to minimize impacts and to provide greater mitigation ratios than might be required in a different setting. Nevertheless, there is not strong support in the literature for the idea that Project implementation, including all required mitigation measures, is

Comment #	Response
	likely to result in significant adverse effects on biological resources, including those in the Core Habitat area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter. Requiring additional mitigation, as recommended in this comment, would be beyond the scope of what CEQA requires based upon the analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources.
RMC-3	Additional research would help offset some of the impacts to wildlife movement by providing information to land managers in the Project area so as to better manage their wildlife resources. Recommended mitigation measure CUMULATIVE BIO-3 requires the applicant to fund a multi-year research study. In addition, mitigation measures BIO-1a and BIO-2a already require habitat replacement/restoration for impacts, therefore requiring additional mitigation, as recommended in this comment, would be beyond the scope of what CEQA requires based analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources.
RMC-4	Cumulative impacts to biological resources are discussed in detail starting on page 4.2-64 of the Draft EIR. In addition several mitigation measures have been recommended to offset these impacts including an additional measure CUMULATIVE BIO-3, which requires funding of additional research.
RMC-5	The Loop Trail Road could be used as a fire access. The LACoFD requires fire access road have an all-weather surface, which could mean gravel or other materials and does not necessarily mean paving. Other roads, including the North Access Road, would be paved.
RMC-6	The impacts to water quality mentioned in the comment are evaluated in the EIR under Impact WR.1 and Impact WR.2.
RMC-7	Specific conditions of approval, responsible parties, funding, and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and it is not really pertinent to the Draft EIR. However, the Draft EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process. The requirement to plant 500 trees has been removed from the Final EIR since the Applicant may decide upon a menu of different approaches for mitigating GHG emissions, if they exceed the thresholds. Planting trees would only be able to offset a small portion of the GHG emissions produced. Traffic emissions are assessed for criteria pollutants and for toxic pollutants. Toxic impacts associated with truck diesel emissions within the Preserve are included in the HRA HARP emissions analysis included in Section 4.1, Air Quality. In addition, modeling truck diesel emissions was conducted for traffic along Penn Street. None of these emissions were estimated to produce significant toxic impacts.
RMC-8	Section 4.6, Aesthetics, identifies the drilling rig as producing significant and unavoidable impacts during the testing phase and during at least 5 years of drilling and up to 3 months per year thereafter of drilling.
RMC-9	Wildfire risk is addressed in Section 4.12, Fire Protection and Emergency Response. Mitigation measures are included to reduce the risks of starting a wildfire from the facilities, including setbacks from brush and firefighting equipment and training. Additional research would help offset some of the impacts to wildlife movement by providing information to land managers in the Project area to better manage their wildlife resources. Recommended mitigation measure CUMULATIVE BIO-3

Comment #	Response
	requires the applicant to fund a multi-year research study. In addition, mitigation measures BIO-1a and BIO-2a already require habitat replacement/restoration for impacts, therefore requiring additional mitigation, such as alternative crossings at Colima Road and providing funds to acquire additional habitat, as recommended in this comment, would be beyond the scope of what CEQA requires based upon analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources. Although additional mitigation as suggested by the commenter and the WCCA would further reduce impacts resulting from the Project and would strengthen the wildlife corridor resources in the Project area, voluntary mitigation is beyond the scope that is required for this CEQA review.
RMC-10	Language has been changed in the Final EIR to reflect the comment. The point that was trying to be made describing prior drilling activities of the Project Site was that those activities did not result in a permanent loss of suitable habitat for sensitive and other wildlife species as evidenced by the fact that bobcats are currently present in the area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling as proposed, with mitigation, would not have the dramatic level of impact upon bobcats suggested by the commenter.
RMC-11	The discussion of Project noise impacts applies to all wildlife, not just birds and smaller wildlife species.
RMC-12	Mitigation measures WR-6a and WR-6b recommend use of reclaimed water and implementation of water conservation measures, respectively. Text has been added to mitigation measure WR-2a indicating that mulches and hydroseed shall be free of invasive plants. LID and sustainable development principals have been included in mitigation measures WR-1a through WR-1g, WR-2a, and WR-2b.
RMC-13	Site-specific physiographic information was provided in Section 4.4.1.1, Physiography. Site-specific stratigraphy information was provided in Section 4.4.1.3, Local Geologic Setting. Site-specific geologic hazards information was provided in Section 4.4.1.4, Geologic Hazards, with respect to faulting, earthquakes, ground acceleration, liquefaction, lateral spreading, differential settlement, and landslides. Site-specific geotechnical hazards information was provided in Section 4.4.1.5, Geotechnical Hazards, with respect to expansive soils, soil settlement, and slope stability. The State has delineated portions of the pipeline route as possibly prone to liquefaction, as indicated in Section 4.4.1.4, Geologic Hazards (Liquefaction subsection). The Final EIR concludes that the potential for liquefaction and other secondary effects of ground shaking exists along the pipeline route (impact GR.1). Text has been added to impact GR.1 to clarify that the liquefaction potential at the Project Site (the drilling site) is low, but the potential exists for liquefaction along the pipeline route. Mitigation measures GR-1a through GR-1g require infrastructure, including the proposed pipeline, to be constructed in accordance with established building codes and standard seismic design standards. In addition, a copy of the most recent geotechnical report (Heathcote Geotechnical 2011) will be included as an appendix to the Final EIR. A fault map, which includes the Whittier fault, was included as Figure 4.4-2. It is unclear whether the Puente Hills thrust fault was used to determine peak ground accelerations, as values provided reflect only horizontal ground accelerations (i.e., not vertical accelerations). However, mitigation GR1-c has been edited to indicate that an updated geotechnical report shall include an estimation of both vertical and horizontal anticipated peak ground

Comment #	Response
	accelerations, as the Heathcote Geotechnical report (2011) only included horizontal peak ground acceleration values. The Whittier-Elsinore fault was discussed in Section 4.4.1.4 Regional Seismicity.
RMC-14	At the time the Draft EIR was drafted and released for public review, the 2000 census data was the most recent and complete data set available from the US Census Bureau. The US Census Bureau is releasing new data products over a several year period to be completed in 2013.
RMC-15	The North Access Road is proposed due to the currently impacted traffic conditions along Mar Vista Street, which current operates at a level of service of F, whereas Penn Street operates at a level of service of A, a substantial difference. The decision makers can elect to override the significant impacts to Mar Vista Street during construction if they consider the North Access Road, or the Loop Road, to be less desirable. Note that after construction, trucks along the North Access Road and Penn Street would average 2-6 per day. The distances that vehicles would travel to access the site would be dependent on the origin of the trip. For vehicles approaching the site from the west, access through the Landfill could be a shorter route.
RMC-16	It is not clear at this time whether the LACoFD would require the use of the Loop Road as a fire access. Therefore, it has been included in the analysis assuming that it would be required to be a fire access. The areas impacted have been included in the biological resources analysis and the areas to be restored by the prescribed ratio. The alternative roadway proposed by the commenter was examined in the original Draft EIR with the roadway running alongside the residences to the south of the Preserve. It was determined to have several significant unavoidable impacts to residences and was dropped from further consideration.
RMC-17	The Rivers and Mountains Conservancy's support for the Landfill Alternative is acknowledged. Additional discussion is included in the Alternatives Analysis in support of the difficulty in permitting oil and gas operations as part of the Landfill. Although the alternatives analysis still identifies potential impacts to some sensitive resources (closer to gnatcatcher habitat and "High Quality" habitat), the Landfill Alternative would substantially reduce all impacts to biological resources relative to the Proposed Project.
RMC-18	This alternative was excluded from consideration since it would also impact recreational and biological areas. This alternative would not achieve the Project objectives since it would allow extraction of less than 50 percent of the crude oil in the reservoirs.
RMC-19	The Rivers and Mountains Conservancy's views on the Loop Road Alternative are acknowledged. Although the Loop Road Alternative would reduce some impacts relative to the Proposed Project, it would also increase pressure on the already constricted Service Tunnel for wildlife movement.
RMC-20	The North Access Road is proposed due to the currently impacted traffic conditions along Mar Vista Street, which current operates at a level of service of F, whereas Penn Street operates at a level of service of A, a substantial difference. The decision makers can elect to override the significant impacts to Mar Vista Street during construction associated with the use of Catalina Avenue if they consider the North Access Road, or the Loop Road, to be less desirable. Note that, after construction, all vehicles except trucks would utilize Catalina Avenue and only an average of two trucks per day would utilize the North Access Road, or up to six average round trips during the operational drilling phase.
RMC-21	Specifics conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and are not really pertinent to the Draft EIR. However, the Draft EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process.

Comment #	Response
	Mitigation measure BIO-4k includes the requirements for compliance and biological monitors.
RMC-22	While the EIR preparers agree that conservation easements would provide added protection to Preserve lands owned by the City, such an action is not required by any of the impacts or the mitigation measures within the Final EIR.

Sierra Club Angeles Chapter

Comment #	Response
SCAC-1	No specific comment on the Draft EIR is included and, therefore, no response is provided.
SCAC-2	No specific comment on the Draft EIR is included and, therefore, no response is provided.
SCAC-3	As detailed in the Draft EIR, 2 years of focused biological baseline studies were conducted for this project, as specified by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority). The focused surveys for California gnatcatchers did not find this species within the Project footprint; the Draft EIR does mitigate for the disturbance to habitat beyond the actual removal of this species' habitat. Impacts to non-listed sensitive species are also included in the discussion in impact BIO.1. There is evidence presented in Tables 4.2-1 and 4.2-2 describing each of these sensitive species' habitat requirements and likelihood of being present in the Project area. This information, as described in text, is based on a review of numerous biological reports prepared within the Chino-Puente Hills in recent years, the California Natural Diversity Data Base, California Native Plant Society Online Inventory of Rare and Endangered Plants, Consortium of California Herbaria online inventory. Finally, we have worked closely with the Habitat Authority and its ecologists to identify all taxa of concern to be considered in the Draft EIR, all of which acted as support to the results of the impact discussion.
SCAC-4	Least Bell's vireo was surveyed for and not recorded in surveys conducted in 2008, 2009, or 2010. This species nests in willow-riparian habitat which has limited occurrence in the Project area. To determine a species' presence or absence, surveys would be required only for that habitat that is both suitable for the species and within the impact area and a specific buffer area around the impacted area. Although the habitat in the Project area is unlikely to support this species, mitigation measure BIO-4e already requires surveys.
SCAC-5	Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals of its Mission Statement.
SCAC-6	Implementation of the Project would result in impacts to the Core Habitat and therefore justifies efforts to minimize impacts and to provide greater mitigation ratios than might be required in a different setting. Nevertheless, there is not strong support in the literature for the idea that Project implementation, including all required mitigation measures, is likely to result in significant adverse effects on biological resources, including those in the core habitat area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit.

Comment #	Response
	Section 4.11 also discusses potential incompatibility issues with the Preserve's Resources Management Plan. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Approval of the Project would provide funding to restore the site. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. Finally, the City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City's owned land that is part of the Preserve.
SCAC-7	The Project would be disruptive on the area's wildlife movement corridors. The Draft EIR clearly states (impact BIO.4) that wildlife movement would be affected by the Project. However, impacts to wildlife corridors mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, BIO-2, and BIO-4) which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program. In addition the Draft EIR biologists agree that additional research would help offset some of the impacts to wildlife movement by providing information to land managers in the Project area so as to better manage their wildlife resources. Cumulative mitigation measure BIO-3 requires the applicant to fund a multi-year research study.
SCAC-8	Please see the response to comment SCAC-7.
SCAC-9	Impact BIO.1 discusses the potential "edge effect" in terms of noise impacts. The Draft EIR has increased the area of disturbance to sensitive habitats to include habitat outside of the disturbance footprint but within that habitat along the edge of the proposed Project boundary. To mitigate the loss of habitat value due to the Project's temporary noise impacts affecting 5.49 acres of coastal sage scrub, the Applicant shall provide minimum 1:1 areal replacement. In addition, the replacement ratios for the loss of sensitive habitats are greater than 1:1 to partially account for the loss of habitat along the edge of the disturbance zone. The proposed mitigation included in this analysis requires a 3:1 replacement for coastal scrub because there would be impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" that can't be completely eliminated through mitigation. Most of the anticipated edge effect for vibration from drilling would be short in duration although vibrations associated with drilling would vary over time. The highest vibration levels experienced by wildlife would most likely occur during the initial portion of drilling a well, during approximately the first 100 feet of drilling, and this would last a matter of hours when they are drilling close to the surface. The actual peak vibration levels during this period would be only for a sum total of a matter of minutes. One well would be drilled per month. Therefore, while it is possible that

Comment #	Response
	some wildlife in the vicinity of the drilling operation, such as bobcats, would experience anxiety due to vibrations produced during high-vibration periods, those periods would be rare and relatively short-lived, only a few hours per month. Vibration effects from trucks using the access road are expected to affect wildlife. However, the trucking activities would be heaviest (up to 150 one-way truck trips in a day) for the first 6 months and then would be substantially reduced during the operational phase. Also, the trucks would be driving through the Core Habitat only during the day when it is expected that most wildlife species are not active. The Draft EIR biologists conclude that this level of impact to wildlife from vibrations would be adverse, but less than significant.
SCAC-10	Site-specific physiographic information was provided in Section 4.4.1.1, Physiography. Site-specific stratigraphy information was provided in Section 4.4.1.3, Local Geologic Setting. Site-specific geologic hazards information was provided in Section 4.4.1.4, Geologic Hazards, with respect to faulting, earthquakes, ground acceleration, liquefaction, lateral spreading, differential settlement, and landslides. Site-specific geotechnical hazards information was provided in Section 4.4.1.5, Geotechnical Hazards, with respect to expansive soils, soil settlement, and slope stability. The State has delineated portions of the pipeline route as possibly prone to liquefaction, as indicated in Section 4.4.1.4, Geologic Hazards (Liquefaction subsection). The Final EIR concludes that the potential for liquefaction and other secondary effects of ground shaking exists along the pipeline route (impact GR.1). Text has been added to impact GR.1 to clarify that the liquefaction potential at the Project Site (the drilling site) is low, but the potential exists for liquefaction along the pipeline route. Mitigation measures GR-1a through GR-1g require infrastructure, including the proposed pipeline, to be constructed in accordance with established building codes and standard seismic design standards. In addition, a copy of the most recent geotechnical report (Heathcote Geotechnical 2011) is included as Appendix L with the Final EIR.
SCAC-11	See response to comment SCAC-10. In addition, a copy of the most recent geotechnical report (Heathcote Geotechnical 2011) is included as Appendix L with the Final EIR. A fault map, which includes the Whittier fault, was included as Figure 4.4-2. It is unclear whether the Puente Hills thrust fault was used to determine peak ground accelerations, as values provided reflect only horizontal ground accelerations (i.e., not vertical accelerations). However, mitigation GR1-c has been edited to indicate that an updated geotechnical report shall include an estimation of both vertical and horizontal anticipated peak ground accelerations, as the Heathcote Geotechnical report (2011) only included horizontal peak ground acceleration values. The Whittier-Elsinore fault was discussed in Section 4.4.1.4, Regional Seismicity.
SCAC-12	The Project would disrupt the area's wildlife corridors. The Draft EIR clearly states (impact BIO.4) that wildlife movement would be affected by the Project. However, impacts to wildlife corridors would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, BIO-2, and BIO-4) which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program. In addition the Draft EIR biologists agree that additional mitigation in the form of research would help offset some of the impacts to wildlife movement by providing information to land managers in the Project area so as to better manage their wildlife resources. Recommended mitigation measure CUMULATIVE BIO-3 requires the applicant to fund a multi-year research study.

Comment #	Response
	Requiring additional mitigation, such as including the areal replacement of habitat as recommended in this comment, would be beyond the scope of what CEQA requires based upon analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources.
SCAC-13	The Greenway Trail starts near Interstate 605 and ends at Mills Road. This area is north of the proposed alternative pipeline route and would not be affected by the pipeline. Future plans may include extending the Greenway Trail along this section of the railroad right-of-way, but the installation of a pipeline would only disturb the area during construction, after which the pipeline would be underground and would not affect above-ground features. Coordination with the pipeline installation could actually facilitate the installation of the bike path along this stretch.
SCAC-14	Impacts of spills on the water resources, and, by extension, the flora and fauna, are addressed in Section 4.8, Hydrology and Water Resources, impact WR.4 which, even with mitigation, remains a significant and unavoidable impact. In addition, the potential effects related to accidental spills of materials on biological resources were analyzed and mitigated in impact BIO.3.
SCAC-15	Wildfire risk is addressed in Section 4.12, Fire Protection and Emergency Response. Mitigation measures are included to reduce the risks of starting a wildfire from the facilities, including setbacks from brush and firefighting equipment and training. The Applicant indicated in its application and on the Project plans that the fuel modification zone would be 20 feet from pad boundaries. California Department of Forestry and Fire Prevention (CAL FIRE) requirements for buildings include a 30-foot clearance zone and a 100-foot fuel modification zone. However, CAL FIRE requirements do not apply to oil wells or processing equipment and, therefore, according to discussions with CAL FIRE, there would be no code requirements on fuel modification or clearance around any of the processing or well equipment. Nonetheless, to reduce wildfire risks, the Draft EIR requires clearance of 30 feet.
SCAC-16	Section 4.1, Air Quality, identifies emissions of GHG as exceeding the South Coast Air Quality Management District thresholds of significance. However, mitigation measure AQ-4 proposes several programs that could reduce emissions to less than the significance criteria. Given that the effectiveness of some of these measures is uncertain, the residual impacts would remain significant and unavoidable.
SCAC-17	As stated in Section 4.14.4, crude oil and natural gas sales pipelines would be built under the existing Preserve Loop Road from the Project Site to Colima Road. Loop Road is located on a portion of the existing Arroyo Pescadero Trailhead. Loop Road may also serve as the LACoFD secondary access route to the facility from Colima Road and may need to be widened to 20 feet. Both the road widening and the pipeline installation would take place during the Design and Construction Phase of the Project and would last approximately 6 to 9 months. Trails may be temporarily closed to recreational use during these activities for up to 6 to 9 months, which would not be considered a significant impact. Mitigation measure REC-2 has been added to reflect this. In addition, the discussion of impact REC.1 in Section 4.14.4 has been modified to include the closure of the Arroyo San Miguel Trail and the related mitigation measure (BIO-4n) that may be implemented to reduce the impact. Further, to reduce noise levels at the public Deer Loop Trail a 16-foot tall noise wall would be installed on the south, west, and north sides of the Gas Plant equipment. This wall would reduce noise levels at the Loop Trail recreational receptor, including truck noise, to less than significant with mitigation.

Comment #	Response
SCAC-18	At the time the Draft EIR was written and released for public review, the 2000 census data was the most recent and complete data set available from the US Census Bureau. The US Census Bureau is releasing new data products from the 2010 census over several years to be completed in 2013.
SCAC-19	The traffic counts were conducted along Penn Street and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR.
SCAC-20	The North Access Road is proposed due to the currently impacted traffic conditions along Mar Vista Street, which current operates at a level of service of F, whereas Penn Street operates at a level of service of A, a substantial difference. The decision makers can elect to override the significant impacts to Mar Vista Street during construction if they consider the North Access Road, or the Loop Road, to be less desirable. Note that after construction, trucks along the North Access Road and Penn Street would average 2-6 per day. The distances that vehicles would travel to access the site would be dependent on the origin of the trip. For vehicles approaching the site from the west, the Landfill Road could be a shorter route.
SCAC-21	The North Access Road is proposed due to the currently impacted traffic conditions along Mar Vista Street, which current operates at a level of service of F, whereas Penn Street operates at a level of service of A, a substantial difference. Note that impacts to Mar Vista Street would only be experienced during the construction phase of the Project.
SCAC-22	It is not clear at this time whether the LACoFD would require the use of the Loop Road as a fire access. Therefore, it has been included in the analysis assuming that it would be required to be a fire access. The areas impacted have been included in the biological resources analysis and the areas to be restored by the prescribed ratio.
SCAC-23	This alternative roadway proposed by the commenter was examined in the original Draft EIR with the roadway running alongside the residences to the south of the Preserve. It was determined to have several significant unavoidable impacts to residences and was dropped from further consideration.
SCAC-24	Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and it is not really pertinent to the EIR. However, the EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process.
SCAC-25	Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration and it is not really pertinent to the EIR. However, the EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process. A training component for Matrix employees is likely to be needed as part of compliance if a permit is issued for this Project.
SCAC-26	The proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat. Specifics on how to allocate funds is a responsibility of City decision-makers and outside the

Comment #	Response
	purview of this EIR.
SCAC-27	Mitigation measure T-1b requires a worker carpooling program and mitigation measure T-1c limits project traffic on impacted roadways.
SCAC-28	Mitigation measure BIO-4c limits traffic to daylight hours except for emergencies.
SCAC-29	Specific conditions of approval and funding if the Project is approved should be addressed at the time of decision-maker consideration and is not pertinent to the Draft EIR.
SCAC-30	Typical permits for oil and gas production projects include bonding and insurance requirements to protect against various liabilities including spills and eventual decommissioning. These requirements could be added by the City Council in their review of the Project.
SCAC-31	The Draft EIR biologists agree that additional mitigation in the form of research would help offset some of the impacts to wildlife movement by providing information to land managers in the Project area so as to better manage their wildlife resources. Mitigation measure CUMULATIVE BIO-3 requires the applicant to fund a multi-year research study. However, the purpose of such a study would not be to provide corrective action for the proposed Project. The purpose of the study itself would do nothing to alleviate any possible impacts identified through the study. The City of Whittier is the ultimate determinant for funding of habitat replacement and the Habitat Authority's management of the Preserve.
SCAC-32	Mitigation measures FP-1a, 1c, 2a require fire fighting and detection systems as well as training for wildfire response.
SCAC-33	While the EIR preparers agree that conservation easements would provide added protection to Preserve lands owned by the City, such an action is not required by any of the impacts or the mitigation measures within the Final EIR.

United Women of Whittier

Comment #	Response
UWW-1	Comment in opposition to the proposed Project is acknowledged.

Whittier Area Audubon

Comment #	Response
WAA-1	References to the 7 acres in the executive summary have been removed for a more complete discussion of impacted areas in the Final EIR. The Project Description does not discuss the 7 acres and contains a more complete discussion of the impacted areas in the Draft EIR. Different acreages within the Draft EIR refer to different components of the Project. In some cases the document refers to the drill sites without including the proposed road; in other cases, the document refers to areas that may be disturbed during the construction of the Project, which may be substantially more that the areas that would be disturbed as a result of the footprint of the final production and processing pads. Clarifying language has been added to the Final EIR as appropriate in response to the comment. Please see Table 2-3 in the Project Description which lists all the acreages of disturbances for the proposed Project and corresponds to Section Table 4.2-3, Areas of Impacted Communities Summary.
WAA-2	The sewer and electrical lines would be installed within the Catalina Avenue roadway within the Preserve and would not generate additional disturbed area.
WAA-3	Construction staging and parking is included in the analysis of disturbed areas and

Comment #	Response
	vegetation impacts. It would be temporary disturbed areas that would be revegetated after the construction is completed.
WAA-4	The commenter states that Bio mitigation measures only require a small portion of replacement habitat for a total of 19.38 acres of habitat replacement (although more than 22 acres would be disturbed). However, mitigation measure BIO-1a also states that "all graded slopes outside the permanent impact areas (approximately 8.03 acres) shall be revegetated exclusively with appropriate, locally indigenous plant species. Revegetation of graded slopes shall comply with the Habitat Authority's Restoration Guidelines." Mitigation measure BIO-1b increases the area of habitat replacement by at least 8.03 acres or more depending on the amount of acres disturbed.
WAA-5	The Draft EIR already acknowledges that the habitat near the North Access Road provides a critical resource for wildlife movement in the general area. Implementing mitigation measure BIO-4 would reduce significant impacts to wildlife movement to be less than significant.
WAA-6	The Draft EIR acknowledges the importance of the Core Habitat to wildlife movement and analyzes the impact of traffic trips on wildlife movement.
WAA-7	The cut and fill volumes for the North Access Road have been corrected according to comments from the Applicant, which indicate that minimal grading would be required and only 2,000 yds3 of cut and fill would be completed.
WAA-8	The site grading requirements would produce a substantial amount of truck trips along the North Access Road. This is quantified in Section 2.0, Project Description. Some mitigation measures, such as using some of the cut for more fill and berm constructions, would reduce the amount of truck traffic. Note that truck traffic associated with soil movement would be temporary and would allow for the drilling rig to sit lower, thereby reducing visual impacts.
WAA-9	Soil export truck trips were calculated by dividing the total export volume (149,000 yds3) by 16 yds3 per truck for a total number of trips of 9,313. This was then divided by 6 months at 4 weeks per month and 5 days per week to give 78 trips per day (rounding up).
WAA-10	Please see the response to comment WAA-6. The number of trips during the construction phase would result in 14 to 18 trips per hour (depending on length of work day) and would increase mortalities and disturbances to wildlife in the area of the North Access Road. However, implementing the proposed mitigation, which includes speed limits of 10 mph, traffic calming devices, and restricting traffic to daylight hours, would reduce impacts to less than significant.
WAA-11	The tanker trucks would also use the North Access Road until the crude pipeline is completed. This would add up to seven trucks per day to the North Access Road during this period (close to 1.5 years).
WAA-12	Appendix A includes a detailed tabulation of the trucks associated with each phase of the Project. Drilling muds and wastes would also need to be transported along the North Access Road.
WAA-13	Truck traffic is clearly delineated in Section 2.0, Project Description; Table 2-13; and in Appendix A by activity. However, as some activities overlap, additional information has been added to Table 2-13 to more clearly identify vehicle trips and routes that could be combined through simultaneous activities occurring. Passenger Care Equivalents are used in the traffic analysis only and are a special method used to assess impacts on traffic flow. Although the number of truck trips would increase during the construction phase, the 6-month window of heavier truck trips on the North Access Road would be mitigated to less than significant by implementing mitigation measures described in the Draft EIR.

Comment #	Response
WAA-14	The above-ground pipeline has been removed by the Applicant and is no longer addressed in the EIR
WAA-15	Documents listed on page 4.2-1 have been added to Appendix C.
WAA-16	The Draft EIR's baseline conditions include descriptions of Core Habitat and the importance of the Core Habitat to wildlife nurseries. Implementation of the proposed Project or any of the alternatives would have adverse effects upon biological resources in the Core Habitat zone of the Preserve, and adequate surveys were conducted to collect current biological baseline data. The focused biological surveys conducted in support of the Draft EIR are listed on page 4.2.1. The "core habitat management zone" represents a land-use category identified in the RMP. There have been no baseline studies designed to determine the range of plant and wildlife taxa that occur specifically in the core habitat management zone, or to determine which parts of this zone may be used to a higher degree or a lesser degree for breeding and foraging by different taxa. Given that the proposed Project or alternatives would impact only a small fraction of the core habitat management zone (approximately 2% or less), conducting surveys of the entire core habitat management zone would be outside the scope of what is required under CEQA.
WAA-17	No special-status insect species have been identified as having potential to occur there. Responding to comments on the Draft EIR, entomologist Dr. Emile Fiesler conducted a supplemental survey on February 8, 2009, for gastropods and other lower taxa, within portions of the Project Site that could be impacted by implementation of the Consolidated Central Site alternative.
WAA-18	During the supplemental survey, one California Special Animal, the San Bernardino ringneck snake, was observed on the Project Site. It was observed in leaf-litter beneath a eucalyptus tree near the end of Catalina Avenue, in the southern part of the Project Site. Table 4.2-2 in the Draft EIR gave this species "High potential for occurrence along streambeds and in other moist habitats on the Project Site," and this table will be updated to note the species' documented occurrence on the site. In response to this comment, and others, three new mitigation measures, BIO-4k, BIO-4l, and BIO-4m, have been added to the Final EIR. With implementation of these measures, drilling and other ongoing operations are expected to have minimal effects upon reptiles and amphibians that remain in the Project vicinity after construction. Also, the provision of speed bumps to limit speeds to 10 mph would help to minimize any potential for vehicles to kill reptiles and amphibians.
WAA-19	With regard to potential effects of lighting on bats, mitigation measure BIO-4b has been reconciled with mitigation measure AE-5a in the Aesthetics and Visual Resources Section. A combined and revised measure shall serve as both mitigation measure BIO-4b and mitigation measure AE-5a. This measure now specifies the use of low-pressure sodium lamps (generally regarded as having the least adverse effects upon wildlife) as safety allows, and since these lamps take minutes to warm up to full brightness, motion-sensors (which were called for in the original mitigation measure BIO-4b) would not be appropriate. Mitigation measures BIO-4b and AE-5a have been revised and reconciled in the Final EIR. Drilling is generally expected to have minimal impacts on bat populations in the area. Potential adverse effects on the pallid bat's ability to forage close to drilling operations are identified as part of the Project's contribution to cumulatively considerable noise impacts. The Project's contribution to these impacts would be less than significant

Comment #	Response
	with implementation of mitigation measure CUMULATIVE BIO-1. The Preserve supports hundreds, if not thousands, of eucalyptus and other non-native trees, as well as oaks and other native trees, capable of providing suitable habitat for roosting bats. The Project biologists are confident that enough suitable roosting locations are available in the local area to absorb the relatively small number of bats that could possibly be displaced by Project implementation.
WAA-20	Impact BIO.1 discusses the potential "edge effect" in terms of noise impacts. The Draft EIR has increased the area of disturbance to sensitive habitats to include habitat outside of the disturbance footprint but within that habitat along the edge of the proposed Project boundary. To mitigate the loss of habitat value due to the Project's temporary noise impacts affecting 5.49 acres of coastal sage scrub, the Applicant shall provide minimum 1:1 areal replacement. In addition, the replacement ratios for the loss of sensitive habitats are greater than 1:1 to partially account for the loss of habitat along the edge of the disturbance zone. The proposed mitigation included in this analysis requires a 3:1 replacement for coastal scrub because there would be impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" that can't be completely eliminated through mitigation.
WAA-21	The Draft EIR state that the construction phase and redrilling of wells could last for up to 5 years.
WAA-22	In preparing this CEQA document, the Draft EIR biologists reviewed the following articles from scientific literature: • Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. Trends in Ecology and Evolution 25:180-189. • Fuzessery, Z. M., P. Buttenhoff, B. Andrews, and J. M. Kennedy. 1993. Passive sound localization of prey by the pallid bat (*Antrozous p. pallidus*). Journal of Comparative Physiology A 171:767-777. • Dooling, R. J., and A. N. Popper. 2007. The Effects of Highway Noise on Birds. Report prepared by Environmental BioAcoustics LLC for The California Department of Transportation, Division of Environmental Analysis, Sacramento, CA. http://www.caltrans.ca.gov/hq/env/bio/files/caltrans_birds_10-7- 2007b.pdf • Bayne, E. M., L. Habib, and S. Boutin. 2008. Impacts of chronic anthropogenic noise from energy-sector activity on abundance of songbirds in the boreal forest. Conservation Biology 22:1186-1193. • Schaub, A., J. Ostwald, and B. M. Siemers. 2008. Foraging bats avoid noise. Journal of Experimental Biology 211:3174-3180. • Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. Current Biology 19:1415-1419. As summarized by Barber and colleagues, "Chronic noise exposure is widespread. Taken individually, many of the papers cited here offer suggestive but inconclusive evidence that masking is substantially altering many ecosystems. In Irvine, Orange County, LSA Associates conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: Although it is difficult to directly relate the effects of noise on breeding birds, no adverse effects were observed during periods of noise levels higher than

Comment #	Response
	60dBA Leq (i.e., during periods of construction activity) as evidenced by the number of California gnatcatchers and least Bell's vireos remaining in this area. In fact, in 2000, a least Bell's vireo pair successfully nested in the portion of Bonita Reservoir that was nearest to the construction activity (p. 17). The following summary is contained in the Birds of North America species account for the California gnatcatcher (Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher [*Polioptila californica*]. The Birds of North America Online [A. Poole, ed.]. Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/574): Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). Of 91 nests found at heavily used state park, 13% were <3 m from paved roads or trails; no evidence that such nests failed more frequently than those in less disturbed sites (Miner, K. L., A. L. Wolf, and R. L. Hirsch. 1998. Use of restored coastal sage scrub habitat by California gnatcatchers in a park setting. West. Birds 29:439-446.).
WAA-23	The model used to calculate noise contours (Figures 4.5-6 and 4.5-8 in the Draft EIR) indicates the "maximum hour noise contours" for the proposed Project <u>during operations</u>, after noise mitigations are applied. In addition, the mitigation requires habitat replacement for that habitat which is disturbed which would restore or replace that loss of habitat in perpetuity, not for the duration of the construction phase.
WAA-24	It is not feasible to accurately determine what the effects of the Project would be on each of the various species of terrestrial mammal that likely occur in the area. However, noise and vibration from drilling operations are likely to have adverse effects upon various species of wildlife, including the bobcat. The following recent studies, among others, have demonstrated that bobcats tend to avoid urban edges: • Riley, S. P. D. 2006. Spatial Ecology of Bobcats and Gray Foxes in Urban and Rural Zones of a National Park. *Journal of Wildlife Management* 70:1425-1435. • Ordeñana, M. A., K. R. Crooks, E. E. Boydston, R. N. Fisher, L. M. Lyren, S. Siudyla, C. Haas, S. Harris, S. A. Hathaway, G. M. Turschak, A. K. Miles, and D. H. Van Vuren. 2010. The effects of urbanization on carnivore species distribution and richness. *Journal of Mammalogy* 91:1322-1331. Page 4.2-42 of the Draft EIR states, "During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. These represent potentially significant adverse effects upon wildlife populations in the Preserve. These indirect impacts to wildlife typically are not quantified beyond the extent of habitat removal due to the high variability of certain species' response to increased noise, lighting, and human presence in different seasons, habitat types, and topography. Research indicates that bobcats are among the species known to avoid urban edges." Ordeñana and colleagues found bobcats at 74% of "camera traps" (161 of 217) spread across 11 locations in coastal southern California, and they stated, "Coyotes and

Comment #	Response
	bobcats were distributed widely across southern California, suggesting their behavioral plasticity and adaptability relative to other large carnivore species." Their Figure 2, a logistic regression model plotting "probability of occurrence" against "distance to urban edge," shows that the probability of bobcat occurrence decreases from approximately 80% at 1500 m from the edge to approximately 70% at the urban edge itself. This moderate negative response of bobcats to urbanization does not support a conclusion that the proposed actions may be anticipated to result in a dramatic change in the bobcat's use of the La Cañada Verde watershed, either as a nursery site or as a movement corridor. Additionally, it is relevant that, for many decades, extensive and unmitigated oil operations took place across a much wider portion of the La Cañada Verde and Arroyo Pescadero watersheds than is currently being proposed, without resulting in significant, long-term, adverse effects on the local bobcat population. The Project's potential impacts on bobcats and other wildlife species would be adverse, but less than significant with provision of the required mitigation measures.
WAA-25	Mitigation measure BIO-4a does not exclude t*he testing phase and therefore,* all phases would require noise minimization measures.
WAA-26	The Noise Reduction Plan required in mitigation measure N-4 would define operating noise level ranges which would act to reduce noise, therefore benefiting wildlife species in the area.
WAA-27	Mitigation measure BIO-4 does not exclude the operational phase and therefore, all phases would require noise minimization measures.
WAA-28	The commenter asks what the vibration effects be resulting from trucks driving on the North Access Road. The Draft EIR preparers agree that the number of truck trips during the construction phase would increase vibration effects which would increase disturbances to wildlife in the area of the North Access Road. However, implementing the proposed mitigation which includes speed limits of 10 mph, traffic calming devices, and restricting traffic to daylight hours when most of the larger wildlife species are not moving would reduce impacts to less than significant.
WAA-29	The designation of the Project vicinity as a "core habitat area" is relevant, and therefore it justifies more effort to minimize impacts and the Draft EIR provides greater mitigation ratios than might be required in a different setting.
WAA-30	Bobcats are sensitive to human presence and the Draft EIR states this point several times. However, this does not negate the opinion that with applied mitigation, impacts to bobcats would be less than significant. The point describing prior drilling activities of the Project Site was that those activities did not result in permanent loss of suitable habitat for this and other sensitive wildlife species as evidenced by the fact that bobcats are currently present in the area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling as proposed, with mitigation, would not have the dramatic level of impact upon bobcats suggested by the commenter.
WAA-31	Habitat replacement on a 1:1 replacement ratio for temporary disturbances to previously disturbed habitats that has not been described as not being "high quality" is a typical mitigation that is allowable under CEQA. Because the loss of habitat occurs in a Preserve in what has been described as "Core habitat" the loss of sensitive habitats have required a 3:1 replacement ratio. Part of the rational requiring a 3:1 replacement for habitat was due to the fact that this "habitat loss was located within a habitat preserve, with existing habitat values and the sensitivity of this location in terms of being well-buffered against human intrusions and other constraints from surrounding development."
WAA-32	All restoration efforts including the location of restoration efforts would be coordinated with the City and the Habitat Authority. As stated in the Draft EIR mitigation measure BIO-1a : "the Applicant shall restore 17.97 acres of degraded

Comment #	Response
	habitats in the La Cañada Verde and Arroyo Pescadero watersheds to coastal sage scrub communities, or as otherwise agreed to by the appropriate resource agencies and the City" All aspects of this restoration shall comply with the Habitat Authority's Restoration Guidelines Mandatory components of any restoration plan shall include, but not be limited to, Site Preparation, Implementation Specifications, Maintenance Methods, Performance Standards, Monitoring Methods, Documentation and Reporting, and Contingency Measures (in case performance standards are not met in any area). All components of any restoration plan prepared in satisfaction of this mitigation measure shall be reviewed and approved by the Habitat Authority prior to implementation."
WAA-33	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan and not produce significant impacts with mitigation. The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
WAA-34	Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Applicant's Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
WAA-35	The California Environmental Quality Act (CEQA) Guidelines, Section 15125(d), state, "the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with public plans creates significant impacts under CEQA only when an adverse physical effect would result from the inconsistency. It is the responsibility of the City Council, the lead CEQA decision maker, to make the final determination regarding consistency issues.

Comment #	Response
	Nonetheless, it is the EIR preparers' contention that Section 4.11, Land Use and Policy Consistency Analysis, provides detailed and sufficient analysis of the proposed Project to include applicable mitigation measures. As stated in Section 4.11, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
WAA-36	Whittier Area Audubon's views on the No Project Alternative are acknowledged. No specific comment on the EIR is included and no additional response is provided.
WAA-37	The pipelines would be located under the existing roads; there are no requirements for fuel modification zones for the pipelines. Whittier Area Audubon's views on the Savage Canyon Landfill Site Alternative are acknowledged.
WAA-38	Whittier Area Audubon's views on the Loop Trail Road Alternative are acknowledged.
WAA-39	Paving of roadways is examined in the Draft EIR in Section 4.1, Air Quality, associated with the emissions given off during the construction of paved roads and from the laying of asphalt. Impervious surfaces and the resulting drainage is addressed in Section 4.8, Hydrology, and mitigation measures (WR-1) to address runoff from impervious surfaces are included.
WAA-40	The requirement to plant 500 trees has been removed from the Final EIR as the Applicant may decide upon a menu of different approaches for mitigating GHG emissions, if they exceed the thresholds. The planting of trees would only be able to offset a small portion of the GHG emissions produced.

The Whittier Conservancy

Comment #	Response
WC-1	Construction impacts would be significant only during the period of construction. Localized impacts are demonstrated in the Final EIR to be less than significant. The construction emissions on a regional basis could be reduced to less than significant if the soils can be exported to the Landfill. However, that is uncertain at this time and the impacts, therefore, would be significant and unavoidable.
WC-2	Localized air impacts from PM and the impacts of emissions of toxics could both be mitigated to below the significance thresholds.
WC-3	Impacts related to fugitive dust emissions produced by travel on dirt roads or grading activities could be reduced to less than significant with the South Coast Air Quality Management District fugitive dust measures proposed in mitigation measure AQ-1a. Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration. However, the EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process.
WC-4	Localized impacts are demonstrated in the Final EIR to be less than significant. Offsets are managed by the SCAQMD to ensure that basin-wide emissions of NOx are not exceeded.
WC-5	Section 4.1, Air Quality, identifies emissions of greenhouse gases as exceeding the South Coast Air Quality Management District thresholds of significance. However, Mitigation Measure AQ-4 proposes several programs that could reduce emissions to below the significance criteria. Given that the effectiveness of some of these measures is uncertain, the residual impacts were considered to be significant and unavoidable.

Comment #	Response
WC-6	Traffic emissions are assessed for criteria pollutants and for toxic pollutants. Toxic impacts associated with truck diesel emissions from vehicles within the Preserve are included in the HRA HARP emissions analysis included in Section 4.1, Air Quality. In addition, modeling of truck diesel emissions was conducted for traffic along Penn Street. None of these emissions were estimated to produce significant toxic impacts.
WC-7	No specific comment on the EIR is included and no additional response is provided.
WC-8	Although the City has an older codes related to oil and gas development, there are numerous codes and standards, including those developed by API, NFPA, and others that address design and planning and operations to help ensure that risks are minimized. Section 4.3, Safety, Risk of Upset, and Hazardous Materials, require audits of the facility against these codes and standards to ensure appropriate facility design and operations.
WC-9	Risk levels are not identified as being a significant and unavoidable impact primarily because the facilities would be located far enough away from receptors such that impacts would be limited. However, site security and vandalism can contribute to releases and risk levels at facilities. In addition, audits against applicable codes and standards ensure appropriate fire and release detection as well as appropriate maintenance and training. Mitigation measure SSR-1b requires audits against codes and standards.
WC-10	Both noise and air quality contain information on the history of noise and air quality complaints that Sycamore Canyon and Honolulu Terrace have experienced. The safety and risk section discusses incidents at the Honolulu Terrace facility as well. Numerous other incidents at other oil and gas facilities are utilized to develop a listing of potential release scenarios or odor causing scenarios in order to quantify the risk levels are the facility.
WC-11	No specific comment on the EIR is included and no additional response is provided.
WC-12	Tables 2-10, 2-11 and 2-14 in Section 2.0, Project Description, list the toxic materials used and transported to the facility. In addition, crude oil would be transported from the facility initially by truck and then by pipelines and natural gas would be transported from the facility by pipeline. None of the materials transported by truck would present an acute risk to the public; their primary risk would be impacts to the environment. No steam injection is proposed as part of this Project. And, as indicated on page 2-36 of Section 2.0, Project Description, Matrix will not utilize hydraulic fracturing techniques and, therefore, the Draft EIR does not examine hydraulic fracturing.
WC-13	The automatic shutoff valves used are standard equipment in the oil and gas industry and would not be located 5,000 feet under water, as was the case with the BP spill in the Gulf of Mexico. Maintenance would be easier and would be part of regular audits of the facility.
WC-14	The first paragraph of the Subsidence section cites Chilingar and Endres (2005). Because the Wilmington, Inglewood, Long Beach, Huntington Beach, and Dominguez oil fields subsided and rebounded many years ago, the reports for these fields are old, but still relevant. Regardless, the potential for subsidence related impacts is still present. Therefore, mitigation measures GR-7a and GR-7b have been included to monitor and remediate (as necessary) subsidence.
WC-15	It is unclear how the commenter concluded that the potential for a catastrophic earthquake is low. As indicated in the Probabilistic Ground Acceleration Analysis, probabilities have been established by the California Geological Survey (2011), which allows engineers to design structures for larger ground motions than what is expected during a 50 year interval.
WC-16	As indicated in the Residual Impacts section of impact WR.4, “no additional feasible measures beyond the proposed blow-out prevention system and the above mitigation measures are available. The residual impact to water quality would be significant and

Comment #	Response
	unavoidable."
WC-17	Facility equipment impacts to aesthetic resources are addressed in impact AE.2 in Section 4.6, Aesthetics and Visual Resources. These impacts can be mitigated through landscaping and berms. However, impact AE.1 related to views of the drilling rig, could be reduced through painting of the drilling rig, but could not be eliminated and would remain significant and unavoidable. However, the impacts from drilling would be significantly reduced once the drilling program is completed after 5 years. While processing facilities and underground pumping units would remain, their aesthetic impact would be largely mitigated by their location and landscaping.
WC-18	Mitigation has been included in the Draft EIR for impacts to aesthetic resources. However, even with mitigation, a 125 foot tall drilling rig is hard to hide. In addition, there is no East Site in the current proposed Project.
WC-19	Section 2.0, Project Description, lists the toxic materials used and transported to the facility. In addition, crude oil would be transported from the facility initially by truck and then by pipelines and natural gas would be transported from the facility by pipeline. None of the materials transported by truck would present an acute risk to the public; their primary risk would be impacts to the environment. As per DOGGR requirements, the wells would be cased past the groundwater aquifer, preventing contamination of the groundwater by crude oil, gas or drilling chemicals.
WC-20	Toxic materials brought up from the reservoirs along with the crude oil and gas would be contained within the process equipment and piping. Any fugitive emissions of materials, which might contain hazardous materials, are addressed in Section 4.1, Air Quality, under the health risk analysis. Health risks were found to be less than the SCAQMD thresholds. As per DOGGR requirements, the wells would be cased past the groundwater aquifer, preventing contamination of the groundwater by crude oil, gas or drilling chemicals. Hydraulic fracturing methods are rarely utilized in the Los Angeles Basin, since it consists mostly of very soft oil-saturated formations; Matrix has no plans to utilize fracturing in its proposed Whittier Main Field operations.
WC-21	No equipment is foolproof. The Federal Government has extensive records of scenarios that have occurred that involved the failure of blow-out prevention mechanisms. This failure rate has been included in the Draft EIR analysis. With proper maintenance, audits and design, risks can be minimized.
WC-22	Information on operations at the Sycamore Canyon and Honolulu Terrace is provided in Sections 4.1, Air Quality, and 4.3, Safety, Risk of Upset and Hazardous Materials. The City has been a responsible party for the Honolulu Terrace facility and reports on oversight are available from the City. These reports were utilized for the additional information added to the Final EIR in Sections 4.1, Air Quality, and 4.3, Safety, Risk of Upset and Hazardous Materials. In addition, other agencies, such as the County of Los Angeles Fire Department and the South Coast Air Quality Management District, are listed as responsible agencies. These reports were utilized in preparation of the Draft EIR.
WC-23	The Whittier Conservancy's views on the significant impacts to water resources are acknowledged.
WC-24	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. However, the Draft EIR policy consistency analysis is preliminary. The decision makers will weigh the compatibility of the

Comment #	Response
	Project with the goals and policies of the General Plan when considering the Project.
WC-25	Section 4.1, Air Quality, and Section 4.3, Safety, Risk of Upset, and Hazardous Materials, analyze the proposed Project's impacts and provide mitigation measures aimed at reducing those impacts.
WC-26	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. However, the Draft EIR policy consistency analysis is preliminary. The decision makers will weigh the compatibility of the Project with the goals and policies of the General Plan when considering the Project.
WC-27	Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. In fact as stated in the RMP, the area in question is highly disturbed and contains significant remnants of oil and gas development. Specifically, the RMP states, "…the essential physical features of the oil field with regard to location, setting, association, and feeling still exist, and there is minimal loss of integrity" (RMP page 65). Approval of the Project would provide for funding to restore the site. Also, as described under the Project Description in the Draft EIR: > Solid-waste disposal fees from the Puente Hills Landfill provide the primary funding for the Habitat Authority. This funding will continue through the remaining life of the Landfill, currently scheduled to close in November 2013. The Puente Hills Landfill is owned by the County of Los Angeles and is managed by the Sanitation District of the Los Angeles County Solid Waste Management Department. The Oil and Gas Lease between the City of Whittier and the Applicant provides for continuing funding for the Habitat Authority with annual administrative fees and mitigation fees upon issuance and acceptance of a CUP. A successful Project would provide a stable source of funding for the Habitat Authority for as long as the wells produce oil and gas. As noted, without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
WC-28	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed

Comment #	Response
	Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat. These combined efforts would enhance the City as a desirable community. However, note that the Draft EIR policy consistency analysis is preliminary. The decision makers will weigh the Project's potential benefits against the goals and policies of the General Plan.
WC-29	Mitigation measures in the Safety, Risk of Upset and Hazardous Materials, Biological Resources, Noise and Vibration, and Recreation sections identify proposed efforts to reduce the associated impacts.
WC-30	As stated in Section 4.11, Land Use and Policy Consistency Analysis, potential noise and visual impacts would be mitigated in accordance with mitigation measures N-1a through N-1c, N-2a through N-2c, N-4, AE-1a and AE-1b, as identified in Section 4.5 Noise and Vibration and Section 4.6 Aesthetics and Visual Resources. Note that the Draft EIR policy consistency analysis is preliminary. The decision makers will determine whether additional, as yet unidentified, mitigation measures can be implemented to further reduce potential impacts. The term 'future operations' used in Section 4.11, Land Use and Policy Consistency Analysis, refers to oil and gas extraction and production activities in phase three of the Project. As described in the Draft EIR, the first phase, the Drilling and Testing Phase, would involve drilling three test wells at the Project Site and assessing the quality and quantity of oil and gas produced. Assuming successful testing, the second phase, the Design and Construction Phase, would involve the installation of gas and oil processing and crude transportation facilities. The third phase, the Operations and Maintenance Phase, would involve drilling of the remaining wells at the Project Site (a total of up to 60 wells), as well as the operation and maintenance of the gas and oil facilities and the wells, which would involve well workovers and occasional well re-drilling. A General Plan amendment is not being proposed for the proposed Project and its related plans. As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030).
WC-31/32	Please see response to comment WC-32.
WC-32	Section 4.11.5.1 of the Draft EIR evaluates consistency with the City of Whittier's Environmental Resource Management Element of the General Plan. Policy 5.3: Section 4.14, Recreation, and Section 4.2, Biological Resources, discuss the proposed Project's impacts on both recreational and ecological resources. Those sections identify mitigation measures that would minimize these impacts and preserve the recreational and ecological resources currently enjoyed in the Preserve. Therefore, the proposed Project may be consistent with this policy. Policy 5.5: The proposed Project Site lies within the Arroyo Pescadero Trailhead of the Preserve. The Arroyo Pescadero Trailhead consists of three trails used for hiking, jogging, dog walking, and bicycling. The proposed Project plans to utilize portions of these trails for secondary vehicle access only, which would not significantly impact the existing recreational trail use. Therefore, the proposed Project may be consistent with this policy. Policy 5.10: The proposed Project is within an area of important ecological resources identified in the Resource Management Plan. The primary threat to these resources

Comment #	Response
	would be oil spills during drilling and production and from the oil and gas pipeline. Potential air quality, traffic circulation, and safety impacts to the Preserve and the surrounding community are discussed in Section 4.1, Air Quality; Section 4.4, Safety, Risk of Upset, and Hazardous Materials; and Section 4.7, Transportation and Circulation. Mitigation measures identified in these sections would minimize these impacts. Therefore, the proposed Project may be consistent with this policy. Lastly, note that the 'East Well Site' is not in the proposed Project, but is considered as an alternative as the Upper Colima Road Consolidated Site. Section 5.1.2.4 analyzes this alternative and eliminates it from further consideration.
WC-33	Section 4.11.5.3 of the Draft EIR discusses consistency with the Habitat Authority's Resource Management Plan. Goal U.S.E-1: The proposed Project is within an area of important ecological resources identified in the Resource Management Plan. The proposed Project would temporarily utilize portions of the existing Arroyo Pescadero Trailhead, impacting portions each of the three trails. Oils spills during drilling and production and from the oil and gas pipeline could affect these resources. Section 4.14, Recreation, describes potential impacts to recreational resources and includes mitigation measures that would temporarily close portions of the trails. Section 4.2, Biological Resources, discusses biological impacts of oil spills. Further, to reduce noise levels at the public Deer Loop Trail, Section 4.5, Noise and Vibration, requires a 16-foot tall noise wall to be installed on the south, west, and north sides of the Gas Plant equipment. This wall would reduce noise levels at the Loop Trail recreational receptor, including truck noise, to less than significant with mitigation. Mitigation measures developed for Section 4.2, Section 4.14 and Section 4.5 would minimize these impacts. Therefore, the proposed Project may be consistent with this goal. Objective U.S.E-3.4: The proposed Project Site area lies within the Arroyo Pescadero Trailhead of the Preserve. The Arroyo Pescadero Trailhead consists of three trails used for hiking, jogging, dog walking, and bicycling. The proposed Project would utilize portions of these trails temporarily to install underground crude and gas pipelines, and long-term secondary vehicle access, which would not significantly impact the existing recreational trail use. Therefore, the proposed Project may be consistent with this goal.
WC-34	Section 4.6 Aesthetic and Visual Resources, Impact AE.1 identifies placement of the drilling rig at the Project Site as a significant and unavoidable impact to public viewsheds. Mitigation Measures AE-1a and AE-1b aim to reduce the impacts to the greatest extent possible.
WC-35	The comment provided is not applicable to the current proposed Project and, therefore, does not require a response.
WC-36	The comment provided is not applicable to the current proposed Project (i.e., East Well Site) and, therefore, does not require a response. However, that said, to reduce noise levels at the public Deer Loop Trail, Section 4.5, Noise and Vibration, requires a 16-foot tall noise wall to be installed on the south, west, and north sides of the Gas Plant equipment. This wall would reduce noise levels at the Loop Trail recreational receptor, including truck noise, to less than significant with mitigation.
WC-37	Section 4.14.5, Cumulative Impacts and Mitigation Measures, identifies projects that could create cumulative recreation impacts because they would contribute to an incompatibility with the recreational use of the Preserve. None of the proposed residential, commercial, or institutional projects listed in Section 3.0, Cumulative Projects Description, would impact recreation at the Preserve. Therefore, cumulative recreational impacts are expected to be less than significant.

Comment #	Response
WC-38	Environmental justice significance criteria are based on the impacts associated with a proposed Project. As the proposed Project would not produce any significant and unavoidable impacts on the residences along Penn Street, impacts would be less than significant.
WC-39	The SCAQMD significance criteria for health risk only examine the incremental health risks of a project. The incremental health risks of the project would be less than the thresholds and therefore less than significant. The SCAQMD MATES study examines baseline risks due to fixed facilities and traffic in the area. The MATES study is discussed in Section 4.1, Air Quality, of the Draft EIR.
WC-40	Health risks were evaluated fort eh project related truck trips that would utilize Penn Street. The project related trucks would produce less than a significant impact.

Whittier Hills Oil Watch

Comment #	Response
WHOW2-1	Responses to the OSLDF letter are provided under the responses to comments by the OSLDF.
WHOW2-2	WHOW's views and opinions of the CEQA document and the Project are acknowledged. No specific comment is provided on the EIR and no additional response is given.
WHOW2-3	Numerous mitigation measures would be applied during the test drilling phase. For example, impact N.2, identified in Section 4.5, Noise and Vibration, is specifically related to noise impacts associated with the test drilling phase. Mitigation measures N.2a, N.2b and N.3c requires extensive noise mitigation associated with drilling that would be applied during the test drilling phase. In addition, air quality mitigation related to the application of CARB level 3 catalysts to reduce toxic diesel particulate emissions, would be required during the testing phase. Hydrology addresses potential spills and requires that a berm be placed around the drilling rig at all times. The testing phase impacts have been thoroughly addressed and mitigated throughout the document.
WHOW2-4	The applicability of tsunamis and nuclear facility incidents to this Project is unclear to the EIR preparers. Blowouts occurring several thousand feet underwater are very different from blowouts that could occur on land based projects. Blowout information, analysis and mitigation are included in Section 4.3, Safety, Risk of Upset and Hazardous Materials. Similarly, in as much as the San Bruno incident is applicable to this Project information is included in Section 4.3. The Federal Government has extensive records of scenarios that have occurred that involved the failure of blow-out prevention mechanisms. This failure rate has been included in the Draft EIR analysis. With proper maintenance, audits and design, risks can be minimized. The Safety and Risk Section addresses the probability of an earthquake causing damage to pipeline and tanks and this frequency is included in the failure rate analysis.
WHOW2-5	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, discusses the potential damage to processing equipment from earthquakes, including the Whittier Narrow earthquake in 1987. The frequency of earthquakes that could produce damage to processing equipment, assumed to be an earthquake producing 0.50g acceleration or greater (the Whittier Narrows earthquake produced up to 0.63g), are calculated by the USGS and are used in the risk analysis to estimate failure frequencies. Note that, given an earthquake or other initiating event, the risk of spills and resulting impacts to the environment are classified as a significant and unavoidable impact and are fully disclosed in the Draft EIR.

Comment #	Response
WHOW2-6	The Final EIR will include a copy of the site-specific Heathcote Geotechnical (2011) report, as Appendix L. This report includes boring logs, cross sections, and soils laboratory analyses. As indicated in the Liquefaction subsection of Section 4.4.1.4, Geologic Hazards, the same reference was used in the Draft EIR as referenced in the comment (California Department of Conservation, Division of Mines and Geology 1999). This map shows only shows pipeline creek crossings as potential liquefaction areas, as indicated in the Draft EIR. Similarly, the Slope Stability subsection of Section 4.4.1.5, Geotechnical Hazards, indicates that the west-facing slopes immediately east of the Project Site and along portions of the North Access Road are prone to earthquake-induced landslides. It is acknowledged that a map would have been helpful, but the text accurately reflects the information portrayed on the map. In addition, the map was included as Plate RG3 of the Heathcote Geotechnical report (2011), is included as Appendix L with the Final EIR. Construction of pipelines in liquefaction prone soils is common and can be engineered to withstand such seismically induced ground failure. Regardless, impact WR.4 (in Section 4.8, Hydrology and Water Resources) concludes with a finding of significant and unavoidable water quality impacts in the event of pipeline rupture.
WHOW2-7	The landslide prone areas identified by the California Geological Survey are rough estimates, which act as red flags to ensure that proper site-specific slope stability analyses are completed in those areas where development is proposed. Accordingly, Heathcote Geotechnical (2011) has completed a site-specific slope stability analysis and determined that the slopes are stable, both statically and seismically-induced, as discussed in the text of the Draft EIR (impact GR.4).
WHOW2-8	It is acknowledged that the EQSEARCH analysis was not recompleted as part of this Draft EIR. The EQSEARCH analysis summary table from the original EIR was used, but the distance to the nearby Whittier Fault was adjusted from 2.0 to 0.5 miles, in an attempt to demonstrate the potential for seismically induced ground motion. There was no intent to mislead; rather, the error was made in haste. As a result, the estimated maximum peak ground accelerations in Table 4.4-1 have been removed for the Final EIR. However, site specific peak ground accelerations have been generated by Heathcote Geotechnical (2011) for the consolidated drilling site. This analysis included the nearby Whittier Fault. In addition, mitigation GR1-c has been edited to require an updated geotechnical report that includes an estimation of both vertical and horizontal anticipated peak ground accelerations, as the Heathcote Geotechnical report (2011) only included horizontal peak ground acceleration values. There was no intent to minimize the number of regional active faults. The intent was to provide examples of nearby active faults with the potential for creating seismically induced ground shaking at the Project site. CEQA does not require exhaustive technical data to be provided; only representative data from which impacts can be evaluated. Please see the Heathcote Geotechnical (2011) report for additional detail. This report has been included as an appendix to the Final EIR. Larger predicted earthquakes on the San Andreas Fault would not necessarily generate larger ground motions at the Project site than more proximal faults, due to the greater distance to the San Andreas. There is no information in the Yang and Hauksson (2011) paper which defines (and/or refutes) the recurrence interval of the Puente Hills thrust fault, as indicated by Heathcote Geotechnical (2011).
WHOW2-9	See response to comment WHOW2-8. The Modified Mercalli Scale, which is included in the comment, is generally an antiquated measure of earthquake size that was used prior to the Richter scale and moment magnitude scale. The Modified Mercalli Scale is not used in seismic design. There was no attempt to bury this antiquated scale, as it is acknowledged throughout Section 4.4 that intense seismically induced ground shaking and associated ground failure could occur at the Project site. As examples, impact GR.1 indicates that “Seismically induced ground shaking could damage proposed structures and infrastructure, potentially resulting in loss of property, risk to human

Comment #	Response
	health and safety, and oil spills." And Water Resources impact WR.4 concludes by indicating that residual impacts to water quality would be significant and unavoidable in the event that oil infrastructure were to fail, such as in an earthquake. Regarding the Southern California Earthquake Center information, current structural design is based on known active and potentially active faults. Structures are not designed based on unknown faults.
WHOW2-10	The earthquake probabilities are for California as a whole and do not necessarily indicate that earthquakes of these sizes would occur in proximity to the Project site. Regardless, it is acknowledged throughout Section 4.4 that intense seismically induced ground shaking and associated ground failure could occur at the Project site, as indicated in more detail in response to comment WHOW2-9. Text has been added to the Puente Hills fault discussion in response to the comment regarding losses as a result of an earthquake on this fault system.
WHOW2-11	A requirement for completion of a drainage plan, based on final project design, is a standard CEQA mitigation that would not be considered deferred mitigation, as a reasonable assumption can be made that such standard and customary engineering practices would reduce impacts to less than significant levels, without having to provide final design engineering.
WHOW2-12	Issues associated with each of the proposed mitigation measures have been addressed in previous WHOW comment responses.
WHOW2-13	Each of the comment issues have been addressed in previous WHOW comment responses.
WHOW2-14	The Draft EIR Section 6.0 and the Executive Summary, provide a side-by-side comparison of the proposed Project with the alternatives. Based on the number of significant and unavoidable impacts, the proposed Project and the Landfill Alternative are comparable. Advantages of the Landfill site cause it to be environmentally preferable, but it was determined that it does not meet the objectives of the Project, which is a consideration of CEQA. Therefore, the proposed Project was selected as the environmentally superior alternative.
WHOW2-15	A CEQA analysis associated with the Municipal Code noise standard change exceeds the scope of this EIR. The strict, quantified noise standards in the previous Municipal Code inhibited the Police Department's response to complaints when noise levels were actually below the quantified standards but were disturbing neighbors. The previous code required the Police Department use noise monitoring equipment to respond to noise complaints. Citizen testimony about unregulated noise disturbances led the City to change the noise elements in the Municipal Code. This change in the Municipal Code was unrelated to the Applicant's proposed Project. The Final EIR attempts to address disturbance by applying a criteria based on changes in noise levels (3 dBA at residences) as opposed to just the General Plan guidelines. Section 4.5.2.5, Significance Criteria, discusses this approach. The noise standard in the previous Municipal Code was 45 dBA over any consecutive 30-minute period, or 50 dBA over any 15-minute period, or 55 dBA over any 5-minute period, or 60 dBA over any 1-minute period, or 20 dBA as a maximum level. If the baseline is measured as greater than the 30-minute standard (45 dBA), then the allowable level would be increased by 5 dBA (to 50 dBA, for example). This is a difficult standard to model against as noise levels associated with any single drilling source in the field would be varying, such as pipe clangs or diesel engines increasing and decreasing in load. This type of standard is generally more applicable to in-field monitoring, as opposed to predicting noise levels. The Draft EIR attempts to estimate these impacts by approximating the 30-minute standard in Section 4.6, Noise and Vibration, as the L50.

Comment #	Response
	The Draft EIR indicates that operations and drilling concurrently would be below the thresholds for significance. Modeling indicates that the average mitigated noise level as a peak hour at all residential receptors would be close to 45 dBA, depending on the baseline. This is very close to the previous code. All of the L50 nighttime baseline numbers are less than the 45 dBA standard and therefore would require no corrections. Under the previous code, the alternative current level of mitigation is close enough that in-field measurements would be required to determine if the Project exceeds the previous code standard. Additional mitigation could be added to the Project in-field if measurements indicated that the previous code is exceeded. These could include thicker sound-proofing or additional barriers. Drilling activities at Baldwin Hills, with the same mitigation measures recommended in the Draft EIR and similar drilling rigs, produces sound levels below 42 dBA at receptors located 750 feet from the drilling. This indicates the conservative assumptions in the Draft EIR noise model (which estimate higher noise levels than these) and that in-field noise monitoring would most likely indicate that the mitigated Project complies with the previous municipal noise code.
WHOW2-16	Drilling operations generally continue for 24 hours per day as starting and stopping the operations can jeopardize the well as well as being less efficient. Noise modeling and assessments indicate that the thresholds would not be exceeded even at night. The previous City of Whittier Municipal Code noise standards were modeled on the Los Angeles County Code, which would not apply to drilling or re-drilling work that is done in full compliance with the conditions of permits is exempt from the Los Angeles County Code (12.08.570m2).
WHOW2-17	While electric engines are quieter and cleaner than diesel engines, at least at the site, clean diesel technology, either tier 4 or the use of CARB level 3 catalysts, substantially reduce toxic diesel emissions. Placing diesel engines inside noise enclosures also substantially reduces noise levels. These mitigation measures would reduce noise and toxic emissions to below the thresholds.
WHOW2-18	The strictest drilling regime in Los Angeles, if not the state or country, is located at Baldwin Hills operating under the recently adopted Community Standards District. The CSD requirements were generally adopted as the mitigation measures in this Draft EIR. Drilling is continuous at Baldwin Hill, 24 hours per day, and minimal, if any, noise complaints have been logged since the adoption of the CSD. Mitigation measures are effective at reducing noise from drilling operations, and this has been demonstrated with in-field assessments.
WHOW2-19	The table listing the noise levels of various equipment pieces were compiled without mitigation applied. The discussion of historical noise studies provides an indication of the noise levels near drilling activities. Additional studies are discussed in Section 4.5, Noise and Vibration, on mitigated drilling systems, specifically at Baldwin Hills, that demonstrate the ability of noise mitigation to reduce noise levels to below 42 dBA at 750 feet. At Baldwin Hills, noise monitoring devices are installed 100 feet from the drilling equipment (with mitigation) and monitor noise levels continuously. Average hourly noise levels for the most recent drilling activity at Baldwin Hills range are from 51 – 60 dBA at 100 feet, which would correlate to 33 to 42 dBA at 820 feet (the closest receptor to the proposed Project drilling site). These noise levels would be below the measured baseline levels in the Project area and are from an existing, current in-field drilling project. This level is less than what was analyzed in the Draft EIR as the Draft EIR provides a conservative analysis.
WHOW2-20	The purpose of the noise study is to ensure that the mitigations required in the noise section are applied correctly and that any additional noise sources are captured by the mitigation systems. The noise study does not defer mitigation, but ensures that the mitigation is applied properly and allows for measurements of noise levels in the

Comment #	Response
	residential areas to be within the threshold levels.
WHOW2-21	Mitigation measures GR-1a and GR-1c have been edited mandating that peak vertical ground accelerations be estimated during the final design process.
WHOW2-22	The EIR requires that a subsequent hydrology report be prepared once plans have been prepared (MM WR-1b & WR-2b). Since the proposed development will consist of grading roads and pads, the hydrology report will be prepared to identify site specific conditions and drainage conditions and provide the design within the confines of the mitigation measures contained within the EIR. No unique conditions were identified that would require the necessity for a hydrology report at this time and the findings of the EIR will remain valid once the final design is performed, since the methodology involves conventional and widely accepted techniques for this type of engineering and design.
WHOW2-23	A site-specific geotechnical investigation has been completed by Heathcote Geotechnical (2011), which demonstrates the feasibility of the project from a geologic hazards perspective. This report is included as an appendix to the FEIR. Site-specific physiographic information was provided in Section 4.4.1.1, Physiography. Site-specific stratigraphy information was provided in Section 4.4.1.3, Local Geologic Setting. Site-specific geologic hazards information was provided in Section 4.4.1.4, Geologic Hazards, with respect to faulting, earthquakes, ground acceleration, liquefaction, lateral spreading, differential settlement, and landslides. Site-specific geotechnical hazards information was provided in Section 4.4.1.5, Geotechnical Hazards, with respect to expansive soils, soil settlement, and slope stability. The State has delineated portions of the pipeline route as possibly prone to liquefaction, as indicated in Section 4.4.1.4, Geologic Hazards (Liquefaction subsection). The Final EIR concludes that the potential for liquefaction and other secondary effects of ground shaking exists along the pipeline route (impact GR.1). Text has been added to impact GR.1 to clarify that the liquefaction potential at the Project Site (the drilling site) is low, but the potential exists for liquefaction along the pipeline route. Mitigation measures GR-1a through GR-1g require infrastructure, including the proposed pipeline, to be constructed in accordance with established building codes and standard seismic design standards.
WHOW2-24	CEQA does not require the analysis of an alternative to be to the same level of detail as that for the proposed Project. However, the analysis provided in the Draft EIR on the Savage Canyon Landfill Alternative is sufficient to address the environmental impacts and provide mitigation measures for the Savage Canyon Landfill Alternative.
WHOW2-25	The discussion of historical noise studies provides an indication of the noise levels near drilling activities. Additional studies are discussed in Section 4.5, Noise and Vibration, on mitigated drilling systems, specifically at Baldwin Hills, that demonstrate the ability of noise mitigation to reduce noise levels to below 42 dBA at 750 feet (the distance to sensitive receptors at Baldwin Hills). This level is less than what was analyzed in the Draft EIR as the Draft EIR provides a conservative analysis.
WHOW2-26	The purpose of the noise study is to ensure that the mitigations required in the noise section are applied correctly and that any additional noise sources are captured by the mitigation systems. The noise study does not defer mitigation, but ensures that the mitigation is applied properly and allows for measurements of noise levels in the residential areas to be within the threshold levels.
WHOW2-27	Comments and responses to the earlier EIR prepared for the earlier version of this Project are no longer relevant. However, where commenters have attached their previous comments, the EIR preparers have provided responses as appropriate. In many cases, the response is that the comment on that earlier EIR is not applicable and no response is merited or relevant to this EIR.

Comment #	Response
WHOW2-28	The EIR preparers are an independent third party without any ties to Matrix. The EIR is an unbiased, good faith effort to evaluate the impacts of the Project and provide for appropriate mitigation for those impacts.

Wildlife Corridor Conservation Authority

Comment #	Response
WCCA-1	The Draft EIR baseline includes descriptions of the Preserve and Core Habitat and the importance of the Core Habitat to wildlife and wildlife movement. The impact analysis includes discussion on all of the indirect impacts included in this comment (noise, vibration, lighting, and human activity.
WCCA-2	Although additional mitigation would further reduce impacts resulting from the Project and would strengthen the wildlife corridor resources in the Project area, voluntary mitigation is beyond the scope that is required for this CEQA review.
WCCA-3	The Draft EIR includes mitigation in the form of habitat replacement, minimization of impacts, and agency coordination and permitting, to offset impacts to sensitive California gnatcatcher habitat.
WCCA-4	Section 4.6, Aesthetics, identifies the drilling rig as producing significant and unavoidable impacts during the testing phase and during at least 5 years of drilling and up to 3 months per year thereafter of drilling.
WCCA-5	The Draft EIR describes the operational impacts as taking place throughout the entire duration of the operational phase.
WCCA-6	Although additional mitigation would further reduce impacts resulting from the Project and would strengthen the biological resources in the Project area, the voluntary mitigation as suggested is beyond the scope that is required for this CEQA review.
WCCA-7	Additional research would help offset some of the impacts to wildlife movement by providing information to land managers in the Project to better manage their wildlife resources. Recommended mitigation measure CUMULATIVE BIO-3 requires the applicant to fund a multi-year research study.
WCCA-8	Access to recreational users to the eastern trails would still exist even after the use of the tunnel is restricted. No additional mitigation is required as part of the EIR. There is no nexus to require funding for ranger patrol to manage existing and future recreational use, including dogs, as part of the impact evaluation for the proposed Project.
WCCA-9	Compliance monitoring is already required by Mitigation Measure BIO-4; additional compliance monitoring will be determined by the City during the CUP permitting review. Mitigation measure BIO-4n does not exclude recreational access to the Service Tunnel; it redirects away from the sensitive Service Tunnel and provides alternative routes and access for recreational use. Installing a culvert under Colima Road would provide a viable alternative road crossing for wildlife in the Project area. However, requiring additional mitigation as recommended in this comment would be beyond the scope of what CEQA requires based upon analysis of the proposed Project and the mitigation measures that have been identified to address potentially significant adverse impacts to biological resources.
WCCA-10	Mitigation measure BIO-4 already requires nighttime restrictions.
WCCA-11	Wildfire risk is addressed in Section 4.12, Fire Protection and Emergency Response. Mitigation measures are included to reduce the risks of starting a wildfire from the facilities, including setbacks from brush and firefighting equipment and training.

Appendix M

Individuals' Comments

Jeff Adams

From: eabrego [eabrego@earthlink.net]
Sent: Thursday, July 21, 2011 3:09 PM
To: Jeff Adams
Subject: DEIR comment

DEIR Comments:

1. Need to know how much of the project revenue will be taken by the County of Los Angeles? AbregoE-1

2. Since all wells, up to 60, will be clustered in 1 area, it is stated in the publication, Using Directional Drilling to Reduce Oil and Gas Impacts in the Intermountain West, that such clustering intensify impacts in the drilling area, even while reducing the overall surface are across which thos impacts occur. The DEIR does not analyze the impact on the Preserve of such clustering. AbregoE-2

3. Need more insurance coverage on the project. AbregoE-3

4. Need to know the City of Whittier's cost to be responsible for the mitigation measures and oversight of compliance. AbregoE-4

Elise Abrego

Jeff Adams

From: Dr. Dan Aldama [drdan@aldama.net]
Sent: Thursday, July 21, 2011 11:55 AM
To: Jeff Adams
Subject: [BULK] Comment on DEIR

Importance: Low

Jeff Adams
Planning Services Manger
Whittier City Hall

Mr. Adams:

I am a resident of Whittier, living at 7246 Canyon Crest Rd. I am very concerned with the shabby work and lack of foresight in the recently released Draft Environmental Impact Report for the oil project in the hills.

AldamaD-1

1) There is not enough data of study on the impact from the many trucks that will be making trips to deliver the toxic materials used. Has the Southern California Air Quality Management District been advised of the proposed increase of air pollution from the trucks in this area?

AldamaD-2

2) The chemicals used by the oil company is not disclosed. In accordance with the so called "Halliburton rule," the oil companies can hide the chemical makeup of the stuff they are going to shoot into the ground. In other cases throughout the United States, these chemicals have poisoned water and air. Again, has AQMD been advised of the possibility of chemical air pollution?

AldamaD-3

3) The proposed route is up Penn Street, near Penn Park. Daily there are dozens of families in the park. The increase in truck traffic WILL decrease the traffic safety. This will harm the environment of Penn Park. Will the city remove the trees and sidewalks of Penn St.? This is unclear. Removing the tress will remove nature's oxygen machine; not good for the environment.

AldamaD-4

4) There are flaws in the study of increased traffic on Penn Street. The study is only one day. As a research scientist, this is not a large enough sample size for ANY conclusion. It's not large enough for a "best guess." On the basis of this shabby research alone, the entire report and project should be scrapped.

AldamaD-5

5) The damage done to the habitat in the hills will never be reversed. Measure A was to preserve the habitat. Now dollars in somebody's pocket will destroy the wildlife environment. This is unconscionable.

AldamaD-6

6) The Penn Street route is not the best for the proposed project. I feel this route is being chosen to mollify the high income residents near Colima and Mar Vista. It is obvious that the best route to the facility is via access from Colima. Even Matrix Oil wants that route. It is a short route, generating less pollution, and disrupting no residents.

I urge the city to reject this report. I urge the city to halt this project until some of these questions are answered. I urge the city to look out for those who are less fortunate and not destroy their lives for the profits of a few rich people. I urge the city to ask Matrix Oil the tough questions and not move forward until these questions are answered.

Daniel Aldama, PhD
Canyon Crest Rd.

Jeff Adams

From: vieja99@aol.com
Sent: Wednesday, July 20, 2011 9:43 AM
To: Jeff Adams
Cc: Gary.Jones@DunnEdwards.com
Subject: Environmental report comment

Mr. Adams, AlmadaPR-1

We would like to express our strongest objection to the use of Penn Street to be used as the main access to the landfill for the purpose of drilling for oil. Penn is heavily used by garbage trucks, Whittier College students and park users. The street is narrow as it is and the further parking restrictions that would arise would great hardship to the residents of the street. As long time residents on Canyon Crest Road we also worry about the drop in property value. Who will compensate the residents in the area for the drop in the value of their homes due to increased congestion, noise, air polution and very limited parking? We believe that oil drilling will cause an inappropriate and disproportionate burden to the residents of Penn, Canyon Crest and Canyon Drive.

Sincerely, AlmadaPR-2
Patricia and Raul Almada
7271 Canyon Crest Road
Whittier,
Ca. 90602

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Lonny Anthony
Address: 13319 Reis ST.
City, St., Zip: Whittier CA 90605
Phone #: 562-693-6319
Email: lonnyanthony@yahoo.com

COMMENTS:

I believe they need to stop the oil drilling because it is harmful to our children, and our city community. AnthonyL-1

RECEIVED
JUL 11 2011
Community Development

June 20, 2011

Whittier City Hall
13230 Penn Street
Whittier, CA. 90602

ATTN: Mr. J. A. Adams -- Planning Services Manager

The City of Whittier is moving ahead with plans to bring oil drilling back to the Whittier Hills. At this time, this area is directly behind our backyard.

We have been a Hacienda Heights resident since 1984, and our home overlooks the rim of the valley where your city is proposing this drilling operation. Allow me to point out a few things that have not been properly addressed in your preliminary environmental impact report.

First, when your engineers discuss about the how "sound" will be minimized through a number of Logarithmic equations and sound barriers, this is not reality! Some of my neighbors and have lived here for 27 years and we know how quiet our valley is at night, and no amount of sound proofing or landscaping is going to stop us from losing that tranquility. Additionally, your study does not take into account that this is an enclosed valley. Sound reverberating in this valley does not escape linearly and thus decrease with distance, as your scientists would have us believe. ArehartJ-1

Second, when you say that you have moved the site for easy egress down Penn St., what you are really saying is that my neighbors and I, who have enjoyed the wilderness view for so many years, will now have to stare out our windows at oil rigs and processing plants for oil and gas. Yet, your EIR says that there will be insignificant effect on the community. ArehartJ-2

The community of Whittier may be MINIMALLY AFFECTED because all of this takes place in the valley hidden from the view of the citizens of Whittier, but we, the Hacienda Heights homeowners, living on the edge of the valley, will be SEVERELY AFFECTED in a number of ways. Those effects will harm us FINANCIALLY, with severe reduction in our home values, by losing the untouched pristine view of the valley. Our HEALTH will be affected by the proximity to 24-hr/day noise pollution. Not to mention that the wind blows through the valley towards our homes daily, thus subjecting our families to toxic pollutants and odors round the clock. ArehartJ-3

Third, you state there will be an need for a "burn-off" to be in place, such as other refineries has at their locations. My experience with these is that they burn very bright, and if they burn all night, will disturb mine and my neighbors sleep, since all our house have master bedrooms facing the valley where you want to construct this facility. You are DESTROYING OUR PEACEFUL AND TRANQUIL NEIGHBORHOOD and WAY OF LIFE THAT WE HAVE HAD FOR 27 YEARS. We **severely oppose** installation of these facilities. ArehartJ-4

Fourth, when my wife and I purchased our home here nearly 30 years ago, it was to stay close to the remaining nature area left nearby to Whittier. Here we could watch, the daily comings and goings of deer, small animals, occasional bobcats and a mountain lion every now and then. Cows graze in these hills. Coyotes play an important ecological role here in the valley also. That will all be disturbed once your project comes online! The whole eco-system will be thrown out of balance, from plant life to animal life right up the food chain to humans. AreartJ-5

Therefore, We are asking the City of Whittier to provide us with ANSWERS to the above questions/statements and provide my wife and me reassurances that; A) We won't have to look at your facility every day of our lives; B) Your actions are not going to cause our home value to drastically fall because we cannot sell our property now that The City of Whittier has ruined the valley and; C) That our mental and physical health will not be comprised from the stress of round the clock activity at your facility that will be within 1000 ft of our home. D) That the fragile eco-system of this pristine valley will not be destroyed or irreversabily damaged by this project.

Sincerely Yours
Mr. & Mrs. James E. Arehart
3660 Holmes Circle
Hacienda Heights, California 91745

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: MARILYN AVILA
Address: 5539 GREENLEAF AVE.
City, St., Zip: WHITTIER, CA 90601
Phone #: 562/656-7360
Email: maavila1@mac.com

COMMENTS:

I AM OPPOSED TO THE OIL DRILLING PROJECT FOR MANY REASONS: ENVIRONMENTAL AS WELL AS QUALITY OF LIFE & HEALTH. THE NOISE POLLUTION, AIR POLLUTION, TRUCK TRAFFIC, DISRUPTION TO WILDLIFE, EXCESSIVE WATER USEAGE, POSSIBILITY OF GROUNDWATER CONTAMINATION ARE SOME OF MY CONCERNS. BUT ONE PARTICULAR AREA IS VERY WORRISOME TO ME. THE WHITTIER HILLS SIT ATOP THE PUENTE HILLS EARTHQUAKE THRUST FAULT. THE REFERENCE IN THE DEIR STATING THAT MITIGATION WOULD BE IN ACCORDANCE WITH APPLICABLE CODES, INCLUDING THE CALIFORNIA BUILDING CODE 2010, DOES NOT SATISFY ME IN THIS AREA. SEISMOLOGISTS HAVE STATED THAT THERE IS GROWING EVIDENCE THAT THIS FAULT IS PARTICULARLY DANGEROUS. A CATASTROPHIC OR EVEN LARGE EARTHQUAKE

AvilaM-1

HAS THE REAL POSSIBILITY OF CAUSING OIL + GAS LEAKS, EXPLOSIONS AND THE WHITTIER HILLS BEING ENGULFED IN FLAMES.

THERE ARE TIMES WHEN THE ALLURE OF MONEY IS JUST NOT WORTH SACRIFICING THE BEAUTY OF NATURE AND HEALTH OF THE PEOPLE, AND THIS IS ONE OF THOSE TIMES.

THIS IS ALSO NOT A DECISION THAT SHOULD BE IN THE HANDS OF ONE SMALL GROUP OF PEOPLE.

I SAY NO TO MATRIX OIL AND CLAYTON WILLIAMS ENERGY. AvilaM-2

RECEIVED
JUL 11 2011
Community Development

Written Comments

RECEIVED
JUL 20 2011
Community Development

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: David S. Ayala
Address: 6269 Hillside Ln.
City, St., Zip: Whittier, CA 90601
Phone #: (562) 201-5553
Email:

COMMENTS:

AyalaD-1 I do not want oil drilling in the Whittier Hills. The project will lower my property value. All cities are facing a financial hardship. I think

AyalaD-2 drilling for oil will harm our wildlife. We should live within our means or even below our means to have a sound city budget.

Jeff Adams

From: Jesse Ayala [jessejxa@yahoo.com]
Sent: Tuesday, July 19, 2011 4:17 PM
To: Jeff Adams
Subject: Whittier Main Oil Field Public Comments

Name: Jesse Ayala
Addrss: 11764 Beverly Blvd.
City St. Zip: Whittier, CA 90601
Phone # : 562 201-6090
Email: jessejxa@yahoo.com

AyalaJ-1

I oppose oil drilling in the Whittier Hills. If the city purchased the property with bond money, it should comply with
the state's open space policy. Although Esther Feldman has been paid handsomely, $15,000 a month, to argue that the proposal does not violate the open space proposition and to lobby the county for its approval, I do not think she is concerned with Whittier. She does not care about our residents, wildlife., or scenic beauty. If she were a concerned citizen she would have done it for free, volunteering her time.

AyalaJ-2

I would also like to speak for the wildlife that will be affected. Certainly, they do not have big oil money that Matrix oil has to offer. The expensive, fancy, colorful brochures that Matrix oil has put out picture a serene green meadow as if nothing will be affected. It does not show the huge trucks rumbling up and down our quiet streets. It does not show what is happening underground, the invisible toxins that will be poisoning our environment. This reminds me of the colorfully painted tower at Beverly High School. They too painted a safe environmentally friendly oil drilling plan. It as failed and most of the wells have been shut down. As a result, it will take years for scientist to figure out how to clean up the toxic wastes left behind. Many Beverly Hills High School graduates are now suffering from some types of cancers including non-Hodgkin's lymphoma and thyroid cancer. At the time, they also thought they had the magical solution for oil drilling, new technologies. Somebody always comes along with the solution to all the problems. I don't see the city's of Baldwin Hills, Montebello Hills, Santa Fe Springs, Dominguez Hills, Signal Hill, etc, thriving because of oil revenues. AyalaJ-3

Although opposing residents, and wildlife do not have the backing of Wealthy Oil Companies, please consider how I and many others feel about oil drilling in our community.

Written Comments

RECEIVED
JUL 20 2011
PLANNING DEPT.

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Raymond, Al Ayala
Address: 12106 E Rose Dr.
City, St., Zip: Whittier, CA 90601
Phone #: (562) 695-6159
Email:

COMMENTS:

I do not think that oil drilling in the Whittier Hills is a good idea. Just the construction phase alone will be disruptive to the wildlife living on the hills. The quality of life in our community will be affected. I do not want to see or hear huge trucks rumbling through our quiet streets. I do not think Bob Henderson is acting in the best interests of its residents here in Whittier. I am concerned with the pollution, the noise, and that more than seven acres will be lost. Someone should be looking out for the best interest of the small animals that call the Whittier Hills home.

AyalaR-1

AyalaR-2

AyalaR-3

Jeff Adams

From: ben baeder [bbaeder2000@yahoo.com]
Sent: Thursday, July 21, 2011 10:18 AM
To: Jeff Adams
Subject: DEIR for Whittier Main Oilfield Development Project

To: Jeff Adams, Planning Services Manager, City of Whittier
Re: The DEIR for the Whittier Main Oilfield Development Project
From; Ben and Cynthia Baeder, 13521 Penn Street

As 9-year residents of Penn Street, my wife, Cynthia Baeder, and I, Ben Baeder, have serious concerns about the DEIR for the oilfield project.

The first concern is safety. Our street is included on a truck route for the oilfield. It is a completely residential area that is full of children. The traffic study was conducted during a time when classes at Whittier College were not in session. I'm sure dozens, if not hundreds, of vehicle trips were not counted. In addition, the study does not at all consider weekend traffic. Anyone who has spent much time in the area knows that Penn Street is busy on weekends, mostly because of events at Penn Park, such as weddings and birthdays, and Whittier College events. The traffic study does not attempt to measure event traffic. For example, in section 4.7.4.3, the report says: "Events at Whittier College and William Penn park reportedly cause short-duration increases in traffic and restrictions in parking along Penn Street." The word "reportedly" shows the report did not measure event traffic. And the Penn Street traffic plan seems only to ask that Whittier College and the oil company cooperate to avoid traffic conflict. It is unrealistic to expect the college and the oil field to make a plan for every event. In addition, there doesn't seem to be any penalty or reward system to encourage compliance to the plan. Because of their ongoing nature, oilfield operations often need equipment on weekends and in the evening. There will almost certainly be oilfield traffic on some weekends. Expecting ongoing, consistent advance planning for such traffic seems completely unrealistic. BaederB-1

I can't find anywhere in section 4.3 of the DEIR that addresses the potential for hazardous materials releases caused by truck crashes. BaederB-2

As far as the noise section, the report states that the truck traffic noise would exceed the acceptable levels set by the county. In addition, the study does not measure noise on Penn Street, which is the main truck route for the largest vehicles. It also does not account for trucks running over the raised, yellow centerline street markers on Penn Street, which dramatically increases traffic noise in the area. Trucks traveling over those markers make traffic so loud that it wakes a person up from a nap and interrupts conversation. Without accounting for the markers, the study does not address the actual conditions on Penn Street. Adding oil trucks will certainly increase noise. Right now, most of the truck drivers who travel on Penn Street are city employees who drive politely and stay on their side of the road. Other drivers, such as the dirt truck drivers who came during the recent Whittier Area Community Church project, consistently failed to obey traffic laws. Also, I ask that the EIR use noise standards generally accepted throughout Los Angeles County and the state instead of a noise standard set by the city. Since city officials have openly supported the project, a noise standard set by the same city officials presents questions about the neutrality of such city-determined noise standards. BaederB-3

The EIR does not seem to account for the population density on Penn Street in relation to other proposed truck routes. This is a very dense neighborhood full of young families with children. Any proposed alternative plans should take into account the number of people affected by each potential route. For example, a route along Colima Road would not have as many impacts to residents as a route along Penn Street. I would also like to know whether any other oil fields in Los Angeles County use a small, two-lane residential street as the primary access road for oilfield truck traffic. Penn is a narrow street with very impacted parking and bad visibility for

vehicles turning from Guilford Way and College Avenue. Adding trucks is dangerous. And adding oil trucks to an already busy street will certainly lower property values. The choice to put the trucks on Penn Street puts into question the fairness of the entire process. BaederB-4

Thanks for your concern,
Ben and Cynthia Baeder

Jeff Adams

From: R Mck [whittierhillsoilwatch@yahoo.com]
Sent: Thursday, July 21, 2011 9:29 AM
To: Jeff Adams
Subject: Fw:

--- On **Thu, 7/21/11, Mary Ellen Basulto <*maryellenb19@yahoo.com*>** wrote:

From: Mary Ellen Basulto <maryellenb19@yahoo.com>
Subject:
To: whittierhillsoilwatch@yahoo.com
Date: Thursday, July 21, 2011, 2:14 AM

Dear Mr. Adams,

BasultoME-1

I disapprove of the oil drilling in Whittier. We do not need any more traffic or noise in our family neighborhood.

Thank you for your consideration to our concerns.

Whittier Resident.

Mary Ellen Basulto

Jeff Adams

From: Shannon Bonner [webbs@solscope.com]
Sent: Wednesday, July 20, 2011 7:40 AM
To: Jeff Adams
Subject: DEIR Comments/Questions

Dear Mr Adams,

Thank you for collecting and forwarding on my comments and questions regarding the proposed Matrix oil drilling project as part of the EIR process. I have attached them below.

Sincerely,
Shannon Bonner
Property owner, 7274 Canyon Crest Road

What city time and financial impact is expected as part of the project? BonnerS-1

If the initial test wells are not successful, what is the remediation plan? Who will bear the cost of this? BonnerS-2

What is the remediation plan and cost thereof if Matrix goes out of business? BonnerS-3

If the proposed alternative of using Penn street is taken, will it be necessary to remove the trees along Penn? What effect will this have on the character of the street and the property values along Penn? How will these property owners be compensated for the loss of value? BonnerS-4

If the proposed alternative of using Penn street is taken, what will be done to allow the dozens of cars that park along it to park? How will the parking situation be addressed in a manner that is fair to those who live there? BonnerS-5

Who will be responsible for paying the cost of the road improvements and construction on Whittier roads? Will additional taxes need to go into effect to pay for this? BonnerS-6

What would happen if there was an earthquake on the Whittier fault? BonnerS-7

What are the mitigation plans, should the oil pipeline develop a leak? What would be the environmental impact of a leak (potentially how many gallons of oil/crude/etc could spill?)? BonnerS-8

What would be the increase in particulate matter in the air in the neighborhoods closest to the drill site? What additional cancer and health risks will this cause, and how will this increase be remediated given the already high levels? BonnerS-9

How will you ensure that the groundwater is not contaminated? Should groundwater be contaminated due to the drilling methods, what actions will be taken to ensure that impacted Whittier residents have the necessary safe water supplies? What will the cost of those actions be to Whittier? BonnerS-9

How will Whittier and other area residents be compensated for the loss of local open space? BonnerS-10

What are the maximum number of wells that could be drilled under the existing lease? What would be the

increase in particulate matter over the open space if all of these wells were to be drilled? What would be the increase in noise level to the neighborhoods closest to the drill site if all potential wells were drilled an operational? BonnerS-11

Many families with children live along all of the proposed truck routes. What actions will be taken to keep pedestrains, especially children who live along the proposed truck routes, safe? BonnerS-12

What are the maximum number of trucks and other vehicles per day that could be leaving and entering the drilling site? What is the increase in particulate matter in the air from these trucks? What is the health risk to residents in this area from the trucks? BonnerS-13

What will be the impact to wildlife if the exit for trucks is moved to the landfill? BonnerS-14

The neighborhoods closest to the drilling are all residential neighborhoods. What impact will the change in character in these neighborhoods from residential to industrial have on quality of life, resale value, and overall impression of Whittier? BonnerS-15

Appendix M

From: alfnz@aol.com
Sent: Sunday, July 17, 2011 9:22 PM
To: Jeff Adams
Subject: Oil drilling on the Whittier Hills

BorbonM-1

Dear Mr. Adams,
just a note to stand against the proposed oil drilling project. It is a bad plan in every way. It will affect property values, health, biology, traffic, air,
and the list goes on. But, just by mentioning these impacts, isn't it just plain to see that this is a bad plan? Please turn from causing irreversible damage to Whittier residents lives and lets find other clean ways to improve our financial situation.
Thank you,

Marta M. Borbon
5228 Glennon Dr.
Whittier

RECEIVED
JUL 2 1 2011
Community Development

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: LORI BREITMAN (PAUL)
Address: 15433 LODOSA DRIVE (EAST OF COLIMA)
City, St., Zip: WHITTIER, CA 90605
Phone #: (562) 789-5253
Email:

COMMENTS:

My NEIGHBORS AND I ARE EXTREMELY CONCERNED ABOUT THE OIL DRILLING PROJECT IN MANY AREAS (IF IT GOES FORWARD).

BreitmanL-1

☆ ONE QUESTION TO BE ADDRESSED IS REGARDING PAGE - FIGURE ES-4 (WHITTIER PROJECT EIR PUBLIC DRAFT - JUNE 2011). THE QUESTION (#1) IS WILL SITE #4 (UPPER COLIMA) BE CONSTRUCTED ANYTIME IN THE FUTURE? MANY PEOPLE WILL BE IMPACTED NEGATIVELY BY THIS. THIS WOULD INCLUDE THE HOMES IN FRIENDLY HILLS & FRIENDLY HILLS ESTATES

BreitmanL-2

QUESTION #2 (RE: ACCESS ROUTE A (ES-14)

☆ WILL THE LOOP TRAIL EXITING ON COLIMA RD. BE USED ANYTIME IN THE FUTURE (DURING THE LEASE).

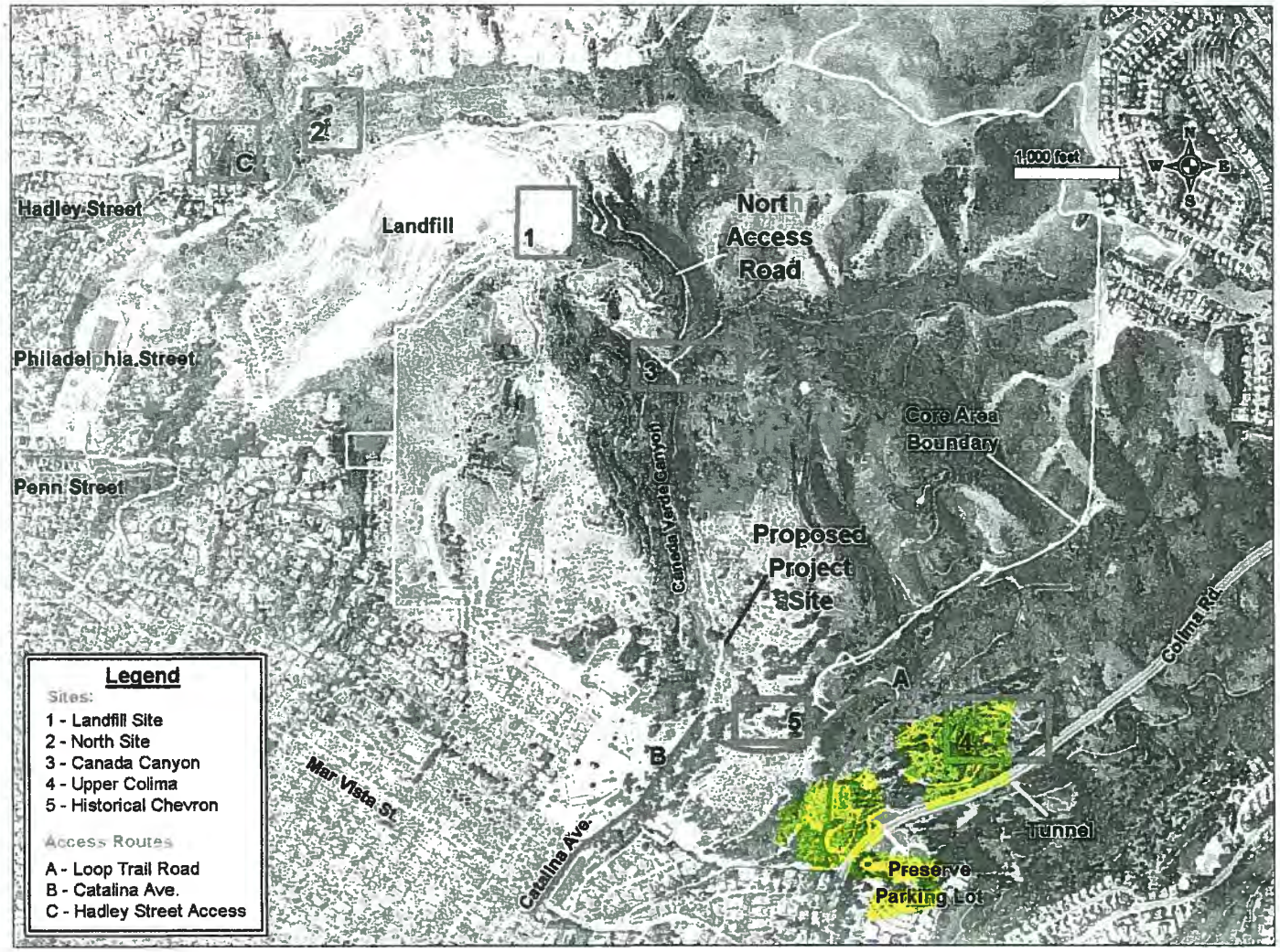
BreitmanL-3

☆ QUESTION #3 - EXACTLY WHAT IS THE PLAN FOR MONITORING AIR QUALITY AND AQUIFORE WATERS FOR OIL DRILLING FOR OIL DRILLING CONTAMINENTS?

QUESTION #4 - IF the Oil Drilling goes forward WHERE will the APPROXIMATELY 600 WELLS be located?

As a point of interest, we never received a response from anyone regarding questions submitted to Mr. Adams re: the first EIR. (Whittier Oil Drilling)

Figure ES-4 Location of Alternatives Analyzed in the EIR



Notes: Only Site 1 (Landfill Site) and Access Route A (Loop Trail Road) were retained for complete analysis in the EIR.

From: Jeff Buch [woodrup2009@yahoo.com]
Sent: Thursday, July 21, 2011 11:10 PM
To: Jeff Adams
Subject: drill on these sites

BuchJ-1 If the city wants to go ahead with drilling and the pride and money it will bring, why use the underrepresented natural areas. Use the highly accessable areas along Whittier Blvd. There are several to choose from with very efficient access for all the trucks needed for this project. If one is proud of drilling then wear it on the shirtsleeve. The many ex-car dealerships offer the best solution for a drilling site. Great access - fast roads in-and-out - will not spoil the natural pathways, etc.

Sincerely,

Jeff Buchholz
Whittier, CA

Jeff Adams

From: Brad Campbell [pennstreetfamily@yahoo.com]
Sent: Thursday, July 21, 2011 5:23 PM
To: Jeff Adams
Subject: Fw: Public Comment Documents
Attachments: Matrix Oil_City of Whittier_Community Concerns_1.doc; DMEC_Comments-WhittierOilDEIR-20101105-9.pdf

--- On Tue, 5/24/11, Brad Campbell <pennstreetfamily@yahoo.com> wrote:

> From: Brad Campbell <pennstreetfamily@yahoo.com>
> Subject: Public Comment Documents
> To: jadams@whittierch.or
> Cc: "Brad Campbell" <pennstreetfamily@yahoo.com>
> Date: Tuesday, May 24, 2011, 11:25 AM
> Dear Mr. Adams,
>
> Please accept the following two attached documents, entitled "Comments
> on Whittier Main Oil Field Development Project EIR" and "Matrix
> Oil_City of Whittier_Community Concerns" as my public comment for the
> Environmental Impact Report (EIR) for the Whittier Main Oil Field
> Development.
>
> In addition to the comments included in the document entitled, "Matrix
> Oil_City of Whittier_Community Concerns", I would ask the following
> for the document entitled "Comments on Whittier Main Oil Field
> Development Project
> EIR":
>
> Specifically, I would like ANY and ALL sections of the report entitled
> "Comments on Whittier Main Oil Field Development Project EIR" that
> have been identified by DMEC as inadequate to satisfy CEQA regulations
> reviewed by the city and responded to, as part of the DEIR review Campbell B-1
> process.
>
> Additionally, any section of the report that suggests that additional
> studies or evaluation be be done, I would like treated in a similar
> fashion.
>
> I would request that the city address and respond to any section (s)
> of the report that finds any error with any of the methodologies used
> by the preparing agency.
>
> As well, I would request that the city specifically address and
> respond to any mitigation findings found by DMEC to be inadequate or
> in need of additional study.
>
> Finally, I note that my original submittal of the document entitled,
> "Comments on Whittier Main Oil Field Development Project EIR" required
> a response and comments under CEQA guidelines from the City of
> Whittier and no such response or comments were received.
>
>
> Thank you,
> Brad Campbell
> Whittier resident

Mr. Jeffery Adams
Planning Services Manager
13230 Penn Street
Whittier, CA 90602
Email: jadams@whittierch.org

May 23, 2001

RE: PUBLIC CONCERNS

Scope and Content of Notice of Preparation and Scoping Document for an Environmental Impact Report (EIR) for the Whittier Mail Oil Field Development Project *REVISED* – April 20, 2011:

Dear Mr. Adams,

Please accept the following as my concerns with regard to the above.

PUBLIC CONCERNS:

CampbeLLB-2

Communication:
During the General Public Scoping Meeting on May 5, 2011, it was clearly apparent that the City's communication is lacking about the meeting. Home owners/residents along Penn Street, Catalina, Mar Vista, and Colima did not all receive appropriate notices of this meeting and therefore had their rights limited to provide concerns regarding the partnership of Matrix Oil and the City of Whittier. Proper notice was not received by the residence most impacted. It was discussed at the Scoping Meeting with Jeffery Adams, Planning Services Manager, who suggested that we, concerned citizens, provide him with addresses and email address of citizens that would like to voice a concern. While this is a way to obtain address information it certainly is not the most effective way. Even without proper notification received the public is still held to a deadline date of 30 days from April 25, 2011, Notice of Preparation and Public Scoping Meetings. Due to the notification problems of the City's communication, there was a request made to allow the public more time to respond to the DEIR and provide public concerns and issues. No response to the request and we are now held to a 20 day deadline for comments on the DEIR.

Multi-ethnicity impact has not been considered with the communication that has been provided by the City and Marine Research Specialists. It has been requested to include notices in other languages of our diverse community, but to date that has not occurred. Many individuals are unaware of the City's efforts and impacts that will be made due English not being the predominant language (Chinese, Armenian, Spanish, etc.).

Scope of the EIR:

CampbellB-3 The scope of the EIR is very limited and identifies only a few streets impacted in the urban areas of Whittier. All citizens of Whittier are impacted by this proposed project and I request analyses and information to be view by all of Whittier, because it is all of Whittier that will be impacted. The impacts will include but not limited to noise, traffic, exhaust, odor that the wind will over enormous areas of Whittier and beyond, property and automobile damage, vibrations of heavy equipment will impact all citizens and wildlife. For example vehicles do not magically appear on Penn Street, but must come from some route (Whittier Blvd., Washington Blvd., Hadley, Painter, etc.) that gets them from their starting position and to their ending position. Currently the scope is limited in the EIR to Penn Street, Colima Road, and Catalina Avenue as described in your Proposed Project Description dated April 2011. This is not acceptable and requires further analysis of this issue and should be included in the EIR.

Aesthetics/Visual Impact:

CampbellB-4 The EIR is inadequate and incomplete in that it fails to provide information regarding the effect upon the project site's microclimate that would be caused by the reduction in the project site elevation and the hills. The EIR also fails to provide an analysis as to how the changes in the microclimate that would be caused by the proposed project would affect the flora and fauna (plants and animals specific to the region) of the project site and its surroundings, which are a visual resource. The tactile sensations experienced by persons in and around the subject site such as changes in moisture in the air, temperature changes, odor, emissions, and other. The EIR must include a section providing the above listed information and analysis.

CampbellB-5 The EIR acknowledges impacts to the background view of undeveloped hillsides and protected habitat of the Puente Hills Landfill Native Habitat Preservation Authority.

The Visual Impact maps provided in the NOP (April 2011) are insufficient and inaccurate to clearly see the impact to the area. The Project describes power poles, power lines and above ground pipeline that was not part of the initial interact map on the PowerPoint presentation at the Scoping meeting dated May 5, 2011. A more accurate method of projecting the area is needed to determine the impact.

Inadequate Range of Alternatives:

CampbellB-6 The EIR should include information and analysis on a range of alternatives instead of a densely populated urban community and nationally recognized wildlife preserve. Alternatives should include a reduced drilling alternative, a no-project alternative that prohibits all new drilling activities in the Whittier Main Oil Field.

Look for alternatives to reduce human health, social and economic impacts resulting from the physical impacts on the environment of the Whittier Main Oil Field.

Alternative access should include access from Colima without impacting the Habitat Preserve and the densely populated urban community of Whittier.

Inadequate Identification of Transportation Impact:

Campbell LB-7

The Proposed Project Description identifies two methods for transporting the oil that are proposed by Matrix. There is no mention as to the expected number of oil carrying vessels that will be impacting our community. Information and analyses need to include the expected number of vehicles, weight of load in addition vehicle weight, both empty loads and full loads, and the route that will be taken to the Whittier Main Oil Field.

According to the scoping meeting of May 5, 2011, Luis Perez, Senior Project Manager for Marine Research Specialists, technology is so advanced that the amount of oil extraction that is expected by Matrix is already known. If the expected amount of oil is know then including this analysis will not be difficult, because without this number we do not really know what depth of impact our densely populated streets/community will have.

The vehicles should include all oil transportation vehicles, construction vehicles, emergency vehicles, testing equipment transportation, maintenance vehicles, etc. All vehicles that access to oil fields and through the Habitat Preserve for any purpose as part of the construction and operation of the Whittier Main Oil Field/Matrix Oil partnership are to be included in the EIR along the expected weight of all such vehicles and routes to be taken.

Impacts to Roads:

Campbell LB-8

EIR should include an analysis and information on road conditions and the impact to our community for related damages and repairs. The analysis should include a suggested source to fix and eliminate all damage to the roads caused by weight and excessive use on any Whittier roads to and from the Whittier Main Oil Field/Habitat Preserve caused by the construction and operation of the mineral extraction. The road repair costs should not come from increased taxes or creative accounting imposed upon the citizens of Whittier. A commitment is needed on the amount of time it will take to fix damaged roads.

Campbell LB-9

Analysis and information is required on the alternate routes that will be used by Matrix oil to access Whittier Main Oil Field. This should include for example: If Penn Street is closed due to repairs what alternative access road will be used. This is also another example of why the scope of the NOP and Scoping Document for an EIR should be more comprehensive to include those alternative densely populated routes.

The EIR should suggest alternative routes to limit the damage to our urban community and Habitat Preserve.

Property and Automobile Damage:

CampbellB-10

An analysis is needed on the EIR of property and automobile damage that will be sustained by accessing on the densely populated Penn Street and other streets of access routes that will be used by Matrix Oil.

Damage to vehicles along Penn Street/Catalina Street will also occur to from the material falling from the equipment that will hit windshields, chip the paint of cars, cause flat tires from sharp material falling off of trucks, to actual impacts while trying to avoid those people who are walking in the street where no sidewalks are available and also from those who chose not to use the sidewalks.

Damage to the residents' property is an imminent fact, the analysis should include information and mitigating options on the damage that will be sustained by using Penn Street and or Catalina as the preferred interior access road to the Whittier Main Oil Field and through the Habitat Preserve.

Excess traffic also causes damage to the homes by the vibrations that will occur. Property damage might include structural damage, plumbing problems from debris being dislodged in the pipes, cracked windows, sidewalk fractures, etc., a damage analysis is needed in the EIR.

Air Quality:

CampbellB-11

The NOP (April 2011) does acknowledge that the proposed Project would contribute to an increase in air quality from construction and operation of…these emissions could result in the violation of air quality standards and evaluate both the long- and short-term impacts. Sensitive receptors will be used to the south and west residences near the Project site. Information is needed to include the specific number, type of receptors, record methods with various times, to record air contaminants, and location of the specific monitoring identified by a map. This information is necessary to know if this method is adequate for the area that needs to be covered. The analysis should also record the exhaust also caused by vehicles used for the Project.

CampbellB-12

Odor needs to be fully evaluated with wind being a factor that can carry the odor over several miles of area that will impact our City and those neighboring cities.

CampbellB-13

Alternative Air Quality tracking processes need to be included/analyzed and determine the best method to ensure the citizens, flora, and fauna (plants and animals specific to the region) are will protected and an emergency protocol of how notification of dangerous levels will be made.

Outside agencies should also be part of the EIR to be a monitoring factor of air quality control that provides monthly updates to the City for public viewing and access.

Information and analysis is required.

Expansion:

CampbellB-14

An analysis and information is needed in relationship to any expansion beyond the initial drilling operations that includes further impacts to our City and the environment. The analysis should include a no expansion alternative. Information and analysis is required.

CampbellB-15 **Risks, Hazards and Hazardous Materials:**

Exploration for and production of oil has major detrimental impacts to soils, surface and ground waters, and the local ecosystems in the United States. These impacts arise primarily from the improper disposal of enormous volumes of saline water produced with oil and gas, from accidental hydrocarbon and produced water releases, and from abandoned oil wells that were not correctly sealed. It is equally important to understand the long-term and short-term effects of produced water and hydrocarbon releases from these sites in order fully assess the impact to our community and wildlife. Information and analysis is required.

CampbellB-16 **Human Health Risk Assessment:**

Human health risk assessment estimates rely on parameters such as environmental concentrations, body weight, absorption by the body, exposure scenario, and certainly several other parameters. Information and analysis is required on impact to human health and the health of a human fetus. It is well know that vehicle exhaust and oil/gas extraction has disease causing properties that can be slowing growing in nature. An epidemiological analysis is required to determine the health of the citizens of Whittier of past oil/gas extraction efforts and the impact that was made.

A current epidemiological study is also necessary to determine the health conditions that currently affect those citizens living on Penn Street due to the stress and current traffic exhaust accumulates in this area. A projected analysis can then be provided and the anticipated human health risk to those most impacted on the Matrix Oil and City of Whittier partnership and the exposure to chemicals caused by extraction efforts including the transportation and dispersion patterns.

FYI…The American Academy of Pediatrics and the American Nurses Association, for example, are now suing the EPA over mercury regulations they contend will allow "subtle but irreversible" brain damage in fetuses.

CampbellB-17 **Traffic/Parking:**

Penn Street has over 500 residents between Painter Street and the entrance to the landfill. Penn Street, particularly east of Painter, suffers from inadequate parking as a result of the City allowing multifamily residential development without requiring parking as needed by the density allowed. Penn Street is used as the primary access for the City landfill and all related activities, including trucks importing dirt, sometimes in excess of 250 trucks per day.

Penn Street bears the burden of traffic to and from Penn Park, rush hour short-cut traffic, and more recently, an exponential increase of traffic related to changes in operations at Whittier College. Whittier College has upgraded the sports complex, and is now leasing the fields to local high schools and sports clubs for practices and competition. To

compound this impact to Penn Street, Whittier College has concurrently blocked traffic through the campus due to construction, resulting in Penn Street becoming the parking lot for Monday and Tuesday night practices, Friday night and Saturday practices and games. There have been accidents related to this use alone in the past few months without the proposed access to the Whittier Main Oil Field. Traffic does not just include cars and trucks, you analysis should include the school buses, Tour Coaches, Banquet Vehicles, Ice cream trucks, limousines (used for weddings, quienceñera, etc.), all of which can be doubled park and in the red no parking zones. Analysis should be taken during the busiest times when Whittier College is in full sessions during the fall and spring semesters, during the weekend days/afternoons, Friday evenings during the public school year, etc. Please do not provide analysis of this situation by obtaining information of traffic and parking concerns at 2:00am, thank you.

Parking restriction now enforced on Penn Street places hardships on the residence and businesses, making it anymore restrictive will place an even more dramatic hardship then is necessary due to the Whittier Main Oil Field Development Project. Where are homeowners and renters to park especially when the construction phase will by 24 hours a day, 7 days a week?

CampbellB-18 **Biological Resources:**

Animal studies have shown that exposure to high levels of PAHs can lead to reproductive problems, skin problems and problems with the immune system but these affects have not been seen in humans. Information and a specific analysis should be included on the health conditions that the fauna will be exposed to as their biology is different from humans. The plant life also will be impacted by the exhaust and damage the Project will cause.

The reproductive habits of the wildlife and flora found in the area also needs an analysis to assess the impacts the Project will make, including reproductive cycles, migratory patterns of the birds and butterflies.

Road going through the landfill and Habitat might require grading down to mineral soil and partial brush clearance of 30 feet on either side. That should have a huge impact on the core increasing edge effect and reducing the area that is available for wildlife nurseries. More information and analysis is required about the actual road requirements and the impact to the wildlife nurseries and the soil.

Information and analysis is required.

CampbellB-19 **Water:**

California is currently **not** in a drought situation; this is the first time in a decade or two that drought conditions are not a concern. Amazing as that is we certainly know drought conditions can change drastically from year to year. During the Scoping Meeting of May 5, 2011, it was mentioned that 10,000 gallons per day for 2.5 years will be used **just** during the Construction Phase. It was not mentioned where this water is coming from it could be transported in or will using of the City of Whittier's water resources. An analysis and information is needed on the water impacts to the City and to the Habitat

Preserve. With such volume of water the analysis should include environmental impacts that will occur to the flora and fauna of the Habitat. The analysis should also include how much expected water will be used once the oil/gas extraction is in operation.

CampbeLLB-20

It is my understanding that produced water extracted during oil and gas production includes formation water, injected water, small volumes of condensed water, and any chemical added during the oil/water separation process. Produced water contains both organic and inorganic constituents. The toxicity and persistence of polycyclic aromatic hydrocarbons (PAHs) in produced water is of particular environmental concern. Information and an analysis should be provided on the effects of the produced water and the toxicity that will be exposed to the community and health impacts to human, flora, fauna and soil. Produced water contains several potential toxic metals, small amounts of radionuclides, as well as industrial additives.

The analysis should describes the origin of pollutants, their fate and transport in the environment, and exposure pathways also include alternative storage of toxic water

FYI…Boffetta *et al*. (1997) reported human skin cancer and Armstrong *et al*. (2004) reported human lung and bladder cancer, associated with PAHs with different exposure pathways.

The U.S. Environmental Protection Agency (USEPA) I believe defined 16 main PAHs as the Priority Pollutant PAHs: naphtalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthen, pyrene, benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h),anthracene, indeno(1,2,3-cd)pyrene, and benzo(ghi)perylene (USEPA 2007).

CampbeLLB-21 **Toxcities/Health:**

Toxic chemicals associated with the Project need to be assessed as to the amount of exposure that the community will have. The chemicals are not simply those produced by the oil/gas extraction, but also those chemicals used for testing and treatment of the equipment used for containment, storage and extraction. Some of the more common chemicals found in petroleum products are the following that should also be included in the EIR. Information and analysis is required.

BETX chemicals: (n) a group of chemicals found in petroleum products that have been linked to serious health effects in humans.

Benzene: a known human carcinogen. Benzene has been linked to anemia, leukemia, and other blood cancers.

Ethylbenzene: a possible human carcinogen. It has been shown to cause hearing loss, neurological effects and kidney damage in lab animals.

Toluene: not currently classified as carcinogenic. It can affect the nervous system causing tiredness, confusion, weakness, memory loss, nausea, loss of

appetite, “drunk-like” actions and hearing and vision problems. High level exposure to toluene can damage the kidneys.

Xylene: not currently classified as carcinogenic. At high levels, xylene can cause headaches, dizziness, problems with muscle coordination, skin irritation, irritation of the eyes, nose and throat, breathing problems, delayed reaction time, memory problems, upset stomach and may cause changes in the liver and kidneys. At very high levels, it can cause unconsciousness or death.

hydrogen sulfide (H2S): (n) a corrosive, flammable gas with a characteristic “rotten egg” smell that is derived from sour gas. It tends to accumulate in low lying and confined spaces. Low doses and long term exposure can cause eye irritation, sore throat, cough, nausea, headaches, fatigue and shortness of breath. Brief exposure to a high dose can lead to neurological damage, loss of consciousness or death

particulate matter: (n) a mix of very small particles and liquid droplets which can include nitrates, sulfates, organic chemicals, metals, soil or dust. Health effects vary with the size of the particles. Very fine particles have the worst effect because they can lodge in the lungs or be absorbed into the bloodstream. Particulate matter has been linked to respiratory problems, asthma, chronic bronchitis, irregular heartbeat, nonfatal heart attack and premature death in people with heart or lung disease

polycyclic aromatic hydrocarbons (PAHs): (n) a group of more than 100 chemicals formed by incomplete burning. The most common source of exposure is breathing smoke from wildfires, coal fires, automobile exhaust, cigarettes, or by eating grilled foods. PAHs are found in coal tar, crude oil, creosote, and roofing tar.

CampbellB-22 **Waste Disposal:**

Insufficient information is provided on the waste disposal and processes that will impact the community and Habitat. Information and analysis is required.

CampbellB-23 **FIRE Protection and Emergency Services:**

We live in Southern California with known fire risks and local earthquake faults. The NOP (April 2011) acknowledges these types of catastrophes and will require the preparation of an emergency response plan (ERP). The ERP is concerned with adequate access for emergency response and firefighting equipment to the various development sites. This is good to see, but in addition there is no mention of a notification system to the residence should an explosion, sabotage or terrorist event occur. Information and analysis is required.

CampbellB-24 **MATRIX Oil is Finished:**

The NOP (April 2011) does not include an analysis or information on the exit plan when Matrix Oil leaves the area. This should be included in the EIR and what safety and restoration efforts will be needed and who the responsible party for costs will be. Information and analysis is required.

From: Irma Cardenas [irma.cardenas@ymail.com]
Sent: Thursday, July 21, 2011 11:50 PM
To: Jeff Adams
Cc: ssolrac@verizon.net
Subject: City of Whittier Oil Project

July 21, 2011

CardenasI-1

To Whittier City Council Members:

As a Whittier resident, I am very concern with the proposed Whittier Hills Oil Drilling. It seems that our city is willing to compromise our environment and our neighborhoods in exchange for dollars. The 'draft" report presented is subjective. What exactly does it mean to minimize the impacts? Would it be significant or slight differences based on what criteria? Matrix cannot guarantee that fumes or toxics will not affect our air quality as well as the noise levels we will have to deal with. We need to consider the increase of traffic as well as the affects it will have on property value. There are lessons learned from the BP disaster as well as the Baldwin Hills oil drilling. Whittier cannot risk its environment and the livelihood of its residents for oil. This report does not address our concerns with the facts to make me feel comfortable with the decision to drill for oil in our city. I hope the council members consider the voice of Whittier residents which is becoming louder as the days go by.

Regards,
Carlos Ayala & Irma Cardenas-Ayala
12543 Carinthia Drive
Whittier, CA 90606

Written Comments

RECEIVED
JUL 11 2011
Community Development

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Marc Casado
Address: 13807 Penn St
City, St., Zip: Whittier CA 90602
Phone #: 562-686-1717
Email:

COMMENTS:

1) Noise levels are going to increase on Penn St. The daily minimum of 60 decibels will be easily surpassed. (Q) What noise meditating measures are going to be taken on Penn St? CasdaoM-1

2) Damage to my property -
A) Stucco - excessive damage - cracks
B) Foundation damage - excessive vibration due to trucks. CasadoM-2
(Q) ~~wd~~ Who is going to pay for damage to my home structure.

3) Pollution meditation. (400 daily trips on Penn St). Diesel pollution from truck exaust CasadoM-3
(Q) What is the meditation to protect my family & I from subjecting us to excessive pollution.

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Diane Cassidy
Address: 15414 Lodosa Dr.
City, St., Zip: Whittier, Ca. 90605
Phone #: 562 693-4099
Email: dcassidy01@yahoo.com

COMMENTS:

CassidyD-1 As per your report "Hydrology & Water Resources" "Significant & unavoidable impacts to surface & groundwater could occur from a rupture or leak"... etc this is completely unsatisfactory! Oil spills, ruptures, and leak can & do occur all the time. This is directly adjacent to a residential community, with an active water table in use by the residents. How can this be acceptable?

CassidyD-2 Also the proposed "new" access to the project could at any time be changed back to the original access proposal! There is absolutely nothing to prevent them from changing it back. There is nothing to stop them. A draft EIR doesn't guarantee anything. It only suggests alternative proposals. This whole project is unacceptable!

Friendly Hills has always been a peaceful

CassidyD-3

neighborhood. that is why we purchased our home 11 years ago. the hills had been protected legally by Prop. A. I would NEVER have purchased my home if I thought such a subversion of the law was remotely possible.

RECEIVED
JUL 11 2011
Community Development

From: hpchin@verizon.net [mailto:hpchin@verizon.net]
Sent: Wednesday, July 13, 2011 1:46 PM
To: WebMail - Admin
Subject: Oil drilling in the hills. Please forward to the Mayor and City Council

To Mayor Warner and Members of the Whittier City Council

The proposed oil-drilling plan (Whittier Main Oil Field Project) requires intrusive activities on the surface of the land in order to assess its mineral reserve capacity. Such activities would take place on land that our city and its leaders fought for and won for its citizens. The stated purpose of obtaining this parcel for the City of Whittier was to permanently retain a protected area that would be available for its residents to enjoy. Allowing commercial drilling to occur would violate the trust owed the citizens of this city, and would be totally contrary to the original goals stated for obtaining this valuable citizens' reserve. As well, it may be a non-legal use of the property. ChinH-1

As to environmental concerns, commercial drilling, however limited, would entail activities which would cause additional pollution of our air, noise from drilling activities, additional vehicles traversing the terrain and our streets to effect transport of drilling machinery and/or product, resulting in increased traffic congestion and an overall deterioration of the quality of living that we cherish for our city and our community. ChinH-2

Even if one were to concede that short-term financial gains are possible, they are not guaranteed; and given that proponents of the project would most likely put forth the best possible scenario for success, it is quite likely that the economic benefit to our city would be much more limited than claimed. Furthermore, receipts from oil-drilling would certainly be only temporary, because at present multiple ecologically compatible methodologies are being developed to provide clean energy, and it would seem that our city should be at the forefront of promoting new, efficient methods of energy generation and not be about to risk our future by committing irretrievably to a fossil fuel recovery technology which shall inevitably become outdated and/or undesirable. ChinH-3

Respectfully,

H. P. Chin
8216 La Sierra Avenue
Whittier, CA 90605

Sent on the Sprint® Now Network from my BlackBerry®

RECEIVED
JUN 30 2011
Community Development

To: Mr. Jeff Adams
Community Development Dept.
City of Whittier
13230 Penn Street
Whittier, CA 90602

From: Bill Daniels
14305 Eastridge Dr.
Whittier, CA 90602

Date: June 27, 2011

Subject: Comments on Environmental Impact Report Public Draft (DEIR)
Whittier Main Oil Field Project

Dear Mr. Adams:

There comments pertain to Section 12 of the DEIR, "4.12 Fire Protection".

Section 12 describes at length many of the important codes (NFPA, API, LACoFD, etc.) that cover engineering and design standards for fire protection systems for the oil and gas industry. NFPA 20 in particular covers the design of fire protection pipeline systems and pumping equipment. NFPA 30 covers spacing requirement for oil storage tanks and other equipment. The LACoFD can be expected to require that any oil storage and transportation facility proposed for the Whittier Hills be engineered and designed to these standards. DanielsB-1

Mitigation Measure FP-1d of 4.12 states, in part, that plans should include but not be limited to fire monitor placement, fire water capabilities, fire detection capabilities, fire foam requirements. Typically a fire protection installation for a crude oil storage tank farm, as well as for facilities for transportation of oil, would entail a fire water supply pipeline system installed around the perimeter of the facility and would include fire monitors, hydrants, pumper connections and valving. Such a system would be designed to deliver 3000 to 5000 gallons per minute of firewater, per code requirements. Fire monitors are normally situated to provide fire water protection from at least two directions to address a fire and/or to cool adjacent equipment exposed to the fire source. These monitors are the first line of defense in the event of a fire, prior to the arrival of County mutual aid, and can deliver 500 to 750 gallons per minute. Monitors normally require water pressure of 100 psig. to provide effective range coverage. DanielsB-2

In reading section 4.12.4 (Project Impact and Mitigation Measures), the statement is made that "Based on preliminary design drawings, the site appears to comply with most equipment spacing requirements. However, detailed design drawings are not yet available for the Project". Later the statement is also made that "preliminary design

documents do not include installation of fire detection and prevention systems…." This writer questions why detailed design drawings were not available from Matrix for this second EIR assessment? Surely Matrix has had plenty of time to complete the engineering and design drawings for a proper review by not only for the EIR but also by the City of Whittier. Any reviewer of such drawings should have experience and background in the engineering and design of fire protection facilities for the oil and gas industry.

DanielsB-3

Thank you.

William G. Daniels

Jeff Adams

From: Capucine Hernandez
Sent: Thursday, July 21, 2011 5:23 PM
To: Jeff Adams
Subject: FW: Comments for Jeff Adams

From: MARTHA DAVILA [mailto:aheadofbeauty@yahoo.com]
Sent: Thursday, July 21, 2011 4:53 PM
To: WebMail - ComDev
Subject: Comments for Jeff Adams

DavilaM-1

Mr. Adams, just wanted to let you know that as a resident I am disgusted to know that you are putting the finances over our well being. I'm sure that you are aware of all the disruption and issues it will cause the residence. Please take these matters into consideration upon planning the city of Whittier's future.

Sincerely,
Martha Davila

Sent from Yahoo! Mail on Android

21 July 2011

Jeff Adams
City of Whittier, Community Development
13230 Penn Street
Whittier, California 90602-1772

SUBJECT: EVALUATION OF THE REVISED ENVIRONMENTAL IMPACT REPORT PUBLIC DRAFT FOR THE WHITTIER MAIL OIL FIELD DEVELOPMENT PROJECT

Thank you the opportunity to review this important document which is a part of Whittier's nearly-impossible effort to address economic issues while trying to meet its legislative obligation to protect the environmental integrity and longevity of the Habitat Preserve.

However, after spending considerable time reviewing the Whittier Main Oil Field Development Project Environmental Impact Report Public Draft released June 3, 2011 (DEIR), we find that the document is inadequate in its environmental assessment and in its proposed mitigation measures. The inadequacies may be grouped into four areas, which are discussed below. We have also provided in this letter comments on the text in the individual DEIR sections, and comments on specific proposed mitigation measures which are deficient.

We recommend that the DEIR be revised to correct the deficiencies listed in this letter, and the Final EIR circulated for at least 45 days in order to allow adequate review by interested parties.

AREAS OF INADEQUACY

1. **Incorrect baseline**. The revised DEIR uses the incorrect baseline for evaluating the Project's environmental impacts. The revised DEIR uses the old oil field and residential development as the baseline, rather than the existing conditions on the ground: a habitat preserve. DC&GN-1
2. **Incorrect application of standards**. Because the wrong baseline is used for evaluation, the revised DEIR uses standards for mitigating Project impacts in an urban or industrial area, rather than appropriately using standards to mitigate impacts in a habitat preserve. DC&GN-2
3. **Non-existent standards for wildlife**. The revised DEIR includes no standards for evaluating Project impacts to wildlife. This calls into question all conclusions about what mitigation measures are necessary and how effective the proposed mitigation measures could be. DC&GN-3
4. **Land use and policy consistency analysis is severely flawed**. Some cited City and County General Plan and Habitat Authority Resource Management Plan policies do not apply to the proposed Project, while in others the Project is erroneously determined to be consistent with the referenced Plan. Flawed analyses are noted below in the comments for specific policies. DC&GN-4

COMMENTS ON DEIR SECTIONS AND PROPOSED MITIGATION MEASURES

Comments below on the revised DEIR follow the outline of the DEIR: comments on each section are followed by comments on that section's proposed mitigation measures and residual impacts, as applicable.

RECEIVED
JUL 20 2011
PLANNING DEPT.

Section 2.0 Project Description

- The DEIR states on page 2-13 that "The County of Los Angeles Fire Department (LACoFD) may require a fuel modification zone (FMZ)." Two sentences later the DEIR states, "The Fire Department has stated that it would require FMZ…" Please correct inconsistency. DC&GN-5
- The DEIR states on page 2-22 that, "Any excess soil from the leveling process would be stockpiled after which it would be utilized or transported offsite as part of the Construction Phase." Stockpiled material should only be placed on already-disturbed sites; no undisturbed areas shall be used for storage. Please include these limitations in a mitigation measure and also describe the types of uses for which the excess soil would be utilized. DC&GN-6
- It is stated that "appropriate temporary fencing and soundproofing would be installed" to screen surface equipment from view (p. 2-22). "Appropriate" is vague language not allowed under CEQA; discuss what the temporary fencing and soundproofing would look like, what installation would entail, and how long "temporary" may be. DC&GN-7
- Several places in the Project Description contain vague statements concerning noise impacts from Project equipment:
  - Page 2-23: "Additional soundproofing would be installed on the drilling rig as necessary."
  - Page 2-44: "Sound levels from other equipment…would also be mitigated as necessary…"
  - Page 2-44: "Various types of soundproofing and insulation will be utilized on this equipment as necessary."

  Please explain how it will be determined whether additional soundproofing is necessary, and what the additional soundproofing would be. DC&GN-8
- A Southern California Gas Company meter building will be constructed near the Arroyo Pescadero parking area off Colima Road (p. 2-27), but the impacts of the building to biological resources (including fuel modification), aesthetics and recreation are not evaluated. DC&GN-9
- Within the Project Description and throughout the revised DEIR, the term "temporary" is used. Since testing, construction, grading, and drilling of the wells is expected to take over five years, and since re-drills and well workovers could take place 52 weeks per year for the remainder of the Project's life, please define "temporary". A definition will allow a more complete assessment of all the temporary impacts of the Proposed Project. DC&GN-10
- It has come to our attention that, to avoid impacts within the Preserve boundary, other sites will be used for staging/storage of equipment/supplies used in the construction phases of this project, and perhaps beyond. These sites need to be identified and evaluated in the Final EIR for their possible environmental impacts. DC&GN-11

Section 4.1 Air Quality

Discussion

- Based on the pamphlet by the California Air Resources Board entitled "Preserving the Future, A Vision for Clean Energy, Clean Skies, and a Growing Economy in Southern California," nitrogen oxides from combustion, a precursor for ozone, will need to be drastically cut to meet federal health standards for ozone and particulates. It states on Page 6 that, "National ozone standards require Southern California to reduce nitrogen oxide (NOx) emissions beyond expected levels by an additional two-thirds in 2023 and three-quarters in 2030." The table on Page 6 shows these amounts to be about 215 tons per day and 250 tons per day, respectively for these deadline years. Further, "In 2030 pollution from just three sources – ships, trains, and aircraft (federally regulated sources) – will lead to ozone levels over the federal standards." This means that everything else by that time must be emitting "zero" amounts of DC&GN-12

NOx and particulates for the region to be in compliance. Missing deadlines and failing to be in compliance could mean losing massive federal and state funding that would help to alleviate our transportation and pollution problems.

- In light of the above, Section 4.1.3 Significance Criteria (and responsible, forward-thinking) decision-making should be based on meeting these near-future goals instead of those adopted in the past, even if just 2008. After all, even based on optimistic schedules, the Project may not begin test drilling for five more years (2016) and may not begin production for 10 (2021.) DC&GN-13

Air Quality Mitigation Measures

- AQ-1a: All replacement ground covers should meet Habitat Authority standards for proper restoration of habitat. DC&GN-14
- AQ-1a: How was the 15 mph vehicle speed limit off-pavement developed? DC&GN-15
- AQ-1c: All soil binders should be approved by the Habitat Authority biologist. DC&GN-16
- AQ-1d: Consistent with the discussion about "4.1.3" above, all "off-road" stationary construction equipment should be electric-powered. In all other cases, all on- and off-road construction equipment should be powered by hybrid-electric or compressed natural gas (CNG) fuel sources, or demonstrate zero emissions to the satisfaction of the SCAQMD, a neutral third-party observer. In all power applications, as time goes by, best available containment technology should be required; that is, as updated equipment is available, it shall be applied to this project. DC&GN-17
- AQ-2a: Instead of "off-set" purchases, the Project should incorporate "zero emissions" technologies in the form of clean-burning CNG which could be obtained from the Savage Canyon Landfill and future Project operations. Since the Los Angeles Basin is running out of time to comply with the 2023 NOx standards, shifting pollution around under market-based theories such as off-set purchases really does nothing to clean the air. While technically permitted, off-set purchases allow the real air impacts to remain to affect our local community. DC&GN-18
- AQ-2b: All drilling engines, heaters and associated equipment should use grid-produced electricity (no portable diesel generators) or CNG. "If feasible" solutions should be rejected unless certified by a third-party assessor such as the SCAQMD. Since diesel catalytic converters only remove 85 percent of NOx, zero-emissions solutions should be employed instead. Always require best available control technology to be applied to this project. DC&GN-19
- AQ-3e: Please define the extent of "the oil field property". DC&GN-20

Section 4.2 Biological Resources

Discussion – Impacts BIO.1 and BIO.2

- The discussion on page 4.2-44 of noise impacts states that noise levels below "60dBA are not expected to be adverse", yet the revised DEIR provides no data to support this conclusion. Please either provide data to support the conclusion or discuss that it is not known at what level noise impacts would be adverse. DC&GN-21

BIO.1 and BIO.2 Mitigation Measures

- BIO-1a: Maintenance and monitoring of all plantings and restoration sites should be for a minimum of seven years, not five. A seven-year monitoring period is preferred by the Forestry Division, Los Angeles County Fire Department. This seven-year time frame should apply to all maintenance and monitoring periods for plantings and restoration sites in any Project mitigation measure. DC&GN-22

- The alternative or auxiliary mitigation plan proposed as an option in the event performance standards are not achieved should be mandatory. In addition, prescribe a trigger for preparation of the alternative mitigation plan; initial restoration should not be allowed to continue indefinitely without some means of determining when it is not meeting required performance standards and when the alternative mitigation plan should be prepared. DC&GN-23
- In consultation with the Habitat Authority, set a date for submitting the annual report on monitoring results, probably after spring surveys could be conducted. DC&GN-24

BIO.1 Residual Impacts

- The discussion of road widening and fuel modification necessary for use of the North Access Road as the Project's primary off-site transport route states that, "The existing North Access Road already passes through habitat of the federally listed California gnatcatcher, and any improvement of the road would have negligible effect upon the local area's suitability for the continued occurrence of the gnatcatcher" (p.4.2-47). This fails to take into account the fact that currently the North Access Road experiences perhaps three trips per week by one Preserve Ranger's vehicle, whereas Phase II of the Proposed Project would put over 300 trips per day by large construction trucks on the North Access Road. Improvements will adversely impact the North Access Road's use by animals; the purpose of the road improvement would be to allow increased vehicle traffic (both volume and size) which will affect the suitability of the area as gnatcatcher habitat. DC&GN-25
- The revised DEIR states that, "The temporary impacts to sensitive nesting habitats resulting from construction and drilling noise would be offset by a 1:1 habitat replacement ratio" (p. 4.2-47). Please explain if the evaluation of temporary impacts considered that Project construction and drilling will last for over five years. DC&GN-26
- The revised DEIR concludes that mitigation measures for Impact BIO.1 would offset the proposed grading and noise impacts to coastal sage scrub, and would reduce impacts to the coastal California gnatcatcher and other sensitive fauna (p.4.2-48). Monitoring and maintenance of restoration areas will continue for up to seven years; this means the mitigation measures for Impact BIO.1 will not be effective for perhaps seven years – longer if the initial restoration effort fails. During this years-long gap in adequate available habitat there will be increased competition by animals for scarce resources, resulting in potentially significant losses as many generations of sensitive species remain absent from the area or are unable to reproduce. These are significant impacts that will not be offset by the proposed mitigation measures. DC&GN-27

BIO.2 Residual Impacts

- The 3:1 replacement ratio for disturbing riparian habitats should apply regardless of the type of disturbance. The revised DEIR states that a 3:1 ratio will be used for grading impacts, but a 1:1 ratio used for "temporary" impacts to nesting habitats from construction and drilling noise. Riparian habitats are rare and especially valuable throughout southern California, that rarity being why the animals dependent upon them are in decline, and any adverse impacts must be countered with maximum restoration efforts at a ratio of at least 3:1. DC&GN-28

BIO.3 Mitigation Measures

- Mitigation Measure BIO-3a states that, "Where feasible, low-impact, site-specific techniques such as hand-cutting contaminated vegetation and using low-pressure water flushing shall be specified to removed spilled material from particularly sensitive wildlife habitats…" Please DC&GN-29

explain when "feasible" applies, and how it will be determined where using these techniques would be "feasible".

- Mitigation Measure BIO-3a requires an Emergency Response Action Plan "include procedures for timely re-establishment of vegetation…" As "timely" is vague, please specify a timeframe for the process of re-establishing locally-indigenous vegetation. DC&GN-30

Discussion – Impact BIO.4

- North Access Road impacts are not adequately addressed (p. 4.2-54). Changes in the topography and vegetation, and changes brought about by the addition of the hardscape road surface, are not evaluated. In Appendix A, Northerly Access Road Study Sheets 2 of 3 and 3 of 3 show that more than 1,160 feet of retaining walls from two to 10 feet in height will be constructed on the upslope side of the North Access Road, and show that K-rails will be installed along the downslope side of the Road. However, the revised DEIR does not analyze this aspect of the Project, and does not evaluate the impacts to wildlife of creating a concrete canyon that they may not be able to easily escape. In addition, the height and length of some retaining walls is not shown, and the total length of installed K-rails is not included. Please include this information in the Final EIR. DC&GN-31
- Discussion of the wildlife travel corridor impacts on page 4.2-55 implies that animals "choosing to avoid the proposed drilling site by moving through the hills to the north" will know about and choose to take one of two alternative roads the revised DEIR states could bring them back south to the Service Tunnel. Therefore, the conclusion seems to be, animals could easily avoid crossing Colima Road so impacts to wildlife travel should not be significant. This scenario is speculative. Animals diverted to the north by activity in the Core Habitat will most logically try to cross Colima Road to the north. DC&GN-32

BIO.4 Mitigation Measures

- BIO-4c: Please list the traffic calming devices that would be used. DC&GN-33
- BIO-4e, -4f, and -4g: Add that the biologist monitor must be onsite during construction activities, and shall have the authority to stop any Project activity that disturbs nesting songbirds, raptors and bats. DC&GN-34
- BIO-4f is inconsistent. It states: "If any actively nesting hawks or owls (or other native birds) are found, a 300-foot buffer would be established around the nest tree to help ensure that nesting is not disrupted. If any active songbird nests are found, a 100-foot buffer would be established as described in BIO-4e." Presumably, songbirds are native birds; please clarify whether the buffer for songbirds is 100 feet or 300 feet. DC&GN-35
- BIO-4g: DC&GN-36
  - The bat specialist should be able to conduct an inspection that determines conclusively whether roosting bats are present.
  - Revise the portion of this mitigation measure that allows removal of the 250-foot buffer around occupied roost habitat on September 30. It is unlikely the bats are aware that they need to vacate by 30 September. The Measure should read: "…until bats have left the maternity site or the end of the maternity season, whichever is later."
  - Please explain what "tract map areas" have to do with this Project.
- BIO-4i: Project lighting should also not be directly visible from the Core Habitat area north, northwest and northeast of the drilling pad area. DC&GN-37
- BIO-4j: Please explain where the signage will be placed. DC&GN-38

- BIO-4k: The Habitat Authority should be consulted concerning relocation of salvaged wildlife within the Preserve. DC&GN-39
- BIO-4l: Add that the training shall be reviewed and approved by the Habitat Authority. DC&GN-40

BIO.4 Residual Impacts

- The revised DEIR incorrectly uses the old oil field and residential development as the baseline condition in this discussion (p. 4.2-60). The Preserve has been recovering habitat for anywhere from 17 to 22 years (the DEIR states various years for when oil production ceased), during which time it would be expected that some habitat would recover and some animals return, and in addition the Habitat Authority has for a decade and a half been restoring habitat and implementing other measures to facilitate the return of wildlife. A residential development is not equivalent to an operating oil field or to the development of such an intense industrial use. Importantly, the residential area does not operate within the Preserve; the oil field will take its impacts to the heart of the Core Habitat. DC&GN-41
- Mitigation measures discussed here, such as requiring construction machinery to operate according to manufacturer's specifications, limiting construction activities to daylight hours, requiring "appropriate noise levels" for drilling operations, are all designed for minimizing impacts to humans (e.g., animals don't leave the Preserve during the day to go to work). The effectiveness of these measures with wildlife is uncertain and speculative. DC&GN-42

Discussion – Impact BIO.5

- The revised DEIR states that the City General Plan policy "calls for a 'balance between oil drilling activities and the protection of plant and animal communities in the hillsides" (p.4.2-61). However, "balance" does not mean projects are evaluated in a vacuum, or that trade-offs between resource production and resource protection must be made for every project proposal. To balance these competing uses, it must be determined where it is appropriate to allow resource production and where it is appropriate for resource protection to prevail. DC&GN-43
- In several places the revised DEIR states that City zoning allows oil and gas exploration and production in the Open Space Zone with the approval of a conditional use permit (CUP) (e.g. 4.2-61). It is important to remember, however, that a CUP to allow resource production can only be approved if such production can be shown to be compatible with surrounding permitted uses which, in this instance, is primarily a wildlife preserve. DC&GN-44
- The possibility of royalty payments funding Habitat Authority management and restoration activities (is the Habitat Authority guaranteed a specific amount for administration and mitigation?) would be a boon if the payments made it possible to preserve and restore areas in addition to the Core Habitat. With the impacts to the Core Habitat from the Proposed Project, this funding would only be an attempt to replace fully mature and functioning Core Habitat someplace else. And when the Project finally shuts down in 25 or 30 or more years, the Habitat Authority will have to begin restoration in the "former" Core Habitat. DC&GN-45

Discussion – Impact Cumulative BIO.1

- The mitigation program specified in the revised DEIR does not effectively address the anticipated effects of the Proposed Project; therefore, the Project's contributions to cumulatively considerable biological impacts cannot be deemed less than significant with mitigation (p. 4.2-65). DC&GN-46

Cumulative BIO-1 Mitigation Measures

- Exterior Noise Standards are based on impacts to humans and are not applicable to wildlife (p. 4.2-65). DC&GN-47
- Please define "noise-sensitive areas". DC&GN-48
- "Applicable at the property boundary" applies only to adjacent residential areas. Impacts to wildlife could still be cumulatively considerable and must be evaluated. DC&GN-49

Cumulative BIO-2 Mitigation Measures

- Define "watershed" (p. 4.2-66). Arroyo Pescadero watershed? San Gabriel River watershed? How will "the same watershed" be determined? DC&GN-50

Biological Resources Mitigation Monitoring Plan

This discussion will primarily address items in the Compliance Verification portion of the Mitigation Monitoring Plan. Specific comments concerning individual mitigation measures are included in previous sections of this letter.

- BIO-1a: Define what level of restoration must be achieved prior to construction (p. 4.2-66). DC&GN-51
- BIO-1c: Define what level of restoration must be achieved prior to grading (p. 4.2-71). DC&GN-52
- BIO-3a: Define "ecologically vulnerable habitats" (p. 4.2-74). DC&GN-53
- BIO-4g: This Mitigation Measure discusses bats, but the "Requirements" text states, "Construction time limits and surveys to protect hawks" (p. 4.2-79). Please clarify. DC&GN-54
- BIO-4k: "Requirements" states, "Closure of Arroyo San Miguel trail during East Well Site construction or drilling" (p. 4.2-82). Is the Project proposing to drill at the East Well Site? DC&GN-55

Section 4.4 Geological Resources

Physiography

- Clarify location of pipeline. In the last paragraph of 4.4.1.1, topographic features are listed that do not exist: "…the pipeline route follows a ridge with canyons located on either side." Is this a new route that would involve additional grading and disturbance of natural areas? DC&GN-56

Geologic Hazards

- Please explain why an entirely relevant section (p.4.4-7-8) on "ground shaking" was removed from the previous DEIR where it was stated that the Northridge earthquake generated ground acceleration greater than 1g far from the epicenter. This would seem to call into question the relevance of the conclusions reached from the data on Table 4.4-1. Also, the previous DEIR (p.4.4-8-9) noted in a "Ground Acceleration Analysis" that "local faults create higher risks – may generate ground acceleration greater than 1g." Also, it is "…probable that the project area will experience one major earthquake within 50 years", and the "Vertical ground motion peak" (p.4.4-9) can be 1.6 times the peak horizontal motion. DC&GN-57
- Discussion – Probabilistic Ground Acceleration Analysis- Since this project will extend for almost 50 years, a statistically significant 10-percent occurrence of a large earthquake, with vertical accelerations greater than 1.6g, should be considered environmentally significant, as well. This is particularly troubling since significance levels and engineering margins of safety seem to be pegged at accelerations of less than 0.5g. DC&GN-58

Geotechnical Hazards

- The DEIR recognizes at 4.4.1.5 that the existing "Uncontrolled artificial fills are unsuitable for supporting structures…." It is presumed that the GR.1 Mitigation Measures will require re-compaction before the project area can be used for construction of the drill pads, etc. However, the plans do not indicate a stockpile location, its size or whether it will involve removal of habitat. DC&GN-59
- The project area and the pipeline route are bound by unstable slopes prone to landslides. It is possible that remediation could result in far greater amounts of soil removal. Is this anticipated in any worse case scenario and how much larger area would be involved? DC&GN-60

Seismic Hazards Mapping Act

- Since oil and gas pipelines are located within a designated habitat preserve (p.4.4-16,) a pipeline management plan is required by law, but not provided for in the Mitigation Measures. DC&GN-61

Significance Criteria and Mitigation Measures

- CEQA Guidelines provide that the project would have a significant geology and soils impact if it would expose people and structures to potential substantial adverse effects involving "strong seismic ground shaking." However, Mitigation Measure GR.1 relies on minimization of the probability of an event in the next 50 years and reliance on building codes for a conclusion of Less Than Significance with Mitigation. Please explain the reasoning here in the face of historic data and professional estimations that accelerations could exceed 1.6g. DC&GN-62
- Mitigation Measure GR.4 suggests that reliance on engineering standards can reduce landslides. This would be true only if slopes were designed to withstand 1.6g acceleration potentials. DC&GN-63

Section 4.5 Noise and Vibration

Discussion

- The revised DEIR states that, "The [Project] site [sic] is also bound and divided by surface streets…" (p.4.5-10). Only a portion of the Project Site is divided by surface streets: the portion that includes the transportation pipelines to be installed under Colima Road and La Mirada Boulevard. This is an important distinction, as the discussion in the DEIR gives the impression that the Preserve is already disrupted by surface streets. Please make this distinction in the text. DC&GN-64
- The revised DEIR places the Preserve in the same City General Plan Noise Guidelines land use category as playgrounds and neighborhood parks (p.4.5-20), where noise exposure up to 70 dBA is considered acceptable (Figure 4.5-3, p. 4.5-19). However, the Preserve is not a playground – there are no swing sets, sandboxes, or jungle gyms – and it is not a neighborhood park – no barbeque pits, softball fields, playgrounds, basketball courts, picnic tables or touch-football games. Visitors to the Preserve come to walk, hike, or ride the trails, catch a glimpse of the local wildlife, and enjoy the solitude. Utilizing Table 4.5.6 Exterior Noise Standards for Los Angeles County on page 4.5-14 of the revised DEIR, the Preserve should be in Noise Zone I as a noise-sensitive area, with an Exterior Noise Level of 45dBA. At the very highest, the Preserve should be on a par with Noise Zone II, which includes residential properties and has an Exterior Noise Level of 45-50 dBA. Because the higher dBA level is used, the revised DEIR inaccurately concludes that Project test drilling, drilling and DC&GN-65

operations would not exceed General Plan noise limits at six Preserve locations (Tables 4.5-9, p. 4.5-29; 4.5-10, p.4.5-35; 4.5-12, p. 4.5-40, 4.5-14, p. 4.5-46).

- Please discuss whether the SoundPlan Noise Modeling software used to determine noise impacts (p. 4.5-21) is a noise industry standard for noise assessment, whether the most current version was used to model the Project, and for what uses the software was developed. DC&GN-66

N.2 Residual Impacts

- The revised DEIR states that, "The noise reduction methods in the mitigation measures are established practices in the drilling industry that reduce noise levels in urban drilling situations" (p.4.5-31). As the Preserve is not an urban drilling situation, the effectiveness of the revised DEIR mitigation measures in protecting wildlife from significant unavoidable impacts cannot be evaluated and must be discussed in the Final EIR. DC&GN-67
- Barrier walls with blankets should also be placed on the east and north sides of the drill site to help mitigate noise levels in the Core Habitat (p. 4.5-32). DC&GN-68
- The revised DEIR states that proposed "mitigation measures would reduce the noise levels at the nearest residence and at all sensitive receptors…" (p. 4.5-37). Please identify the nearest residence and please identify "all sensitive receptors". DC&GN-69

Discussion – Impact N.3

- Please identify what was designated as "the closest sensitive receptor" (p. 4.5-37). DC&GN-70

N.3 Residual Impacts

- Please explain why the Core Habitat was not listed as a sensitive receptor (p. 4.5-45). DC&GN-71

Section 4.6 Aesthetic and Visual Resources

Discussion

- Sound barrier walls, at 30 feet tall, should be included in the discussion of proposed equipment located in the gas and processing area (p. 4.6-13 to -14). DC&GN-72

AE.1 Mitigation Measures

- AE-1a:
  - Landscaping should not be placed at the periphery of the property (p.4.6-21) as this could disrupt viewsheds from within the Preserve and other views of the area not impacted by the drilling rig. Landscaping utilized for screening should be located close to the structure to be screened. DC&GN-73
  - Please explain how neighboring properties that have "existing desirable views" will be identified.

AE.1 Residual Impacts

- Only locally-indigenous vegetation, approved by the Fire Department and the Habitat Authority, should be used to revegetate berms (p. 4.6-23). DC&GN-74

AE.4 Mitigation Measures

- All point lighting should be the minimum lumens necessary for safety and security. Where a constantly-shining light is not required for safety or security purposes, point lighting should DC&GN-75

be on timers that turn lights off when workers are not on site or, less preferably, on motion detectors.

Section 4.11 Land Use and Policy Consistency Analysis

Discussion

- Project impacts and mitigation measures proposed for Impacts LU.1 through LU.6 have been discussed in previous sections of this letter. Evaluation of the revised DEIR's policy consistency analysis follows. A determination is made as to whether the Project is inconsistent or consistent with the accompanying goal/policy, whether the goal/policy applies to the Project, or whether the information provided in the revised DEIR makes it unclear which determination is appropriate. DC&GN-76
- In its discussion of compliance with general planning and zoning laws, the City should include a summary of its responsibilities under CEQA, particularly the duty to provide to policy makers and the general public an understandable and truthful, full-disclosure information document on Project environmental impacts. In addition, the City should list mandatory CEQA findings the Planning Commission or City Council must make in connection with the discretionary permit that may be issued. DC&GN-77

Policy Consistency Analysis

- **Whittier General Plan**
  - Land Use Element
    - Goal 1, Policy 1.1: **Inconsistent**. An operating oil field is not desirable. DC&GN-78
    - Goal 1, Policy 1.2: **Inconsistent**. The Preserve is not a former oil field; it is a preserve. The oil field is not compatible with either the Preserve or residential areas, and does not provide any residential, shopping or employment centers. In addition, the Project develops nearly 31 acres within the Preserve, not "approximately 7". DC&GN-79
    - Goal 1, Policy 1.3: **Consistent**. DC&GN-80
    - Goal 4, Policy 4.1: **Inconsistent**. The area is a preserve, not an industrial area. The new industrial development is not compatible with either the environment or sensitive to adjacent properties. Noise, light, traffic, impacts to views, destruction of habitat, closing of recreation, and odors will still occur. DC&GN-81
    - Goal 4, Policy 4.2: **Unclear**; is one employee enough to make the Project consistent with this policy? How much must employment levels be increased for the Project to be considered consistent? There is no way to know how many of the 15 to 40 employees will be Whittier residents. DC&GN-82
    - Goal 4, Policy 4.3: **Does not apply**. There is no imposed buffer zone associated with the Project. The well site is exactly where the applicant proposed it to be. Implementing "land use buffering techniques" is not the same as a land use buffer. DC&GN-83
    - Goal 4, Policy 4.4: **Does not apply**. This applies to the City's process, not to the Project. DC&GN-84
    - Goal 4, Policy 4.5: **Inconsistent**. "Potential consistency" is speculative, so must at this point find the Project inconsistent. DC&GN-85
    - Goal 4, Policy 4.6: **Consistent**. DC&GN-86
    - Goal 5, Policy 5.1: **Inconsistent**. The Project does not provide recreational opportunities. The Project does not develop or retain parks; in fact, the Project removes recreational areas, and detracts from the attractive aspects of the Preserve. The proposed mitigation DC&GN-87

measures only attempt to offset impacts and do not develop or retain parks or recreation areas.

- Goal 6, Policy 6.4: **Inconsistent**. The Project does not preserve important ecological resources; it removes them, and then attempts to offset those impacts. Minimizing impacts is not preserving resources. DC&GN-88
- Goal 6, Policy 6.5: **Inconsistent**. Land within the Preserve is already supposed to be preserved. The revised DEIR states that nearly 31 acres of preserved land will be impacted by the Project. Development, and mitigation measures to minimize the resulting impacts, do not preserve "as much of the Puente Hills as possible…" DC&GN-89
- Goal 8, Policy 8.2: **Does not apply**. The Project has nothing to do with an existing institutional land use in the City, does not threaten the preservation of any institutional land use, and is not an institutional development. DC&GN-90

– Housing Element
- Goal 1: **Inconsistent**. Oil fields do not "provide an excellent quality of life for all residents." DC&GN-91
- Goal 1, Policy 1.3: **Inconsistent**. The Project may remove the Ranger's residence, and is an incompatible use that will intrude into neighborhoods. DC&GN-92
- Goal 1, Policy 1.7: **Inconsistent**. DC&GN-93
- Goal 1, Policy 1.8: **Inconsistent**. The potential to restore areas of the Preserve on the one hand while removing Core Habitat and recreation on the other is inconsistent with the intent of this policy. DC&GN-94
- Goal 1, Policy 1.9: **Inconsistent**. DC&GN-95

– Transportation Element
- Goal 1, Policy 1.2: **Inconsistent**. DC&GN-96
- Goal 2: **Does not apply**. There are no public roads provided with the Project. DC&GN-97
- Goal 2, Policy 2.1: **Consistent**. DC&GN-98
- Goal 2, Policy 2.2: **Unclear**. It is unclear if this policy applies to individual development projects or to the City's overall transportation system. DC&GN-99
- Goal 2, Policy 2.6: **Inconsistent**. DC&GN-100
- Goal 4, Policy 4.3: **Inconsistent**. Attempting to minimize impacts to trails, even closing trails, is not encouraging the creation or development of multi-use trails. DC&GN-101
- Goal 6: **Does not apply**. The Project is not changing any City streets. DC&GN-102
- Goal 6, Policy 6.1: **Inconsistent**. Permanent grading, fuel modification and paving for new roadways within the Preserve are impacts which cannot be minimized. DC&GN-103
- Goal 6, Policy 6.2: **Consistent**. DC&GN-104

– Environmental Resource Management Element
- Goal 1: **Inconsistent**. DC&GN-105
- Goal 1, Policy 1.1: **Consistent**. DC&GN-106
- Goal 1, Policy 1.2: **Inconsistent**. Exporting 87,500 cubic yards of soil is not conserving soil. Developing mitigation measures to address impacts to soil disturbance is not conserving soil. DC&GN-107
- Goal 1, Policy 1.3: **Inconsistent**. The life of the Project is at least 25 years, which does not include decommissioning time. It is doubtful whether the Preserve's ecosystem can be maintained in a natural balance over that length of time. DC&GN-108

- Goal 1, Policy 1.4: **Inconsistent**. The Project site, regardless of how defined, is a preserve and not an oil field. Restoring the site at the end of the oil field's economic life does not reflect conditions on the ground now, which is what CEQA requires. The Project does not rehabilitate an oil field; it destroys recovering habitat to create an oil field. DC&GN-109
- Goal 1, Policy 1.5: **Inconsistent**. The Project removes native vegetation and wildlife habitat, and detracts from the Preserve's existing visual beauty. "Minimizing impacts" is not "preserving". DC&GN-110
- Goal 3: **Inconsistent**. DC&GN-111
- Goal 3, Policy 3.1: **Inconsistent**. The Project does not protect existing wildlife or preserve open space resources; it removes open space resources and exposes existing wildlife to an industrial use. DC&GN-112
- Goal 3, Policy 3.2: **Inconsistent**. 187,000 cubic yards of earth moved is not minimal. Minor mitigation measures do not change the fact that the Project has substantial impacts to the environment and natural topography. DC&GN-113
- Goal 3, Policy 3.3: **Inconsistent**. The Project is inconsistent with many General Plan policies concerning open space and wildlife preservation. DC&GN-114
- Goal 3, Policy 3.4: **Does not apply**. The Project cannot be consistent with something that has not yet happened; continuing to enforce mitigation measures is not the same as designating who enforces those mitigation measures. DC&GN-115
- Goal 3, Policy 3.5: **Inconsistent**. The Project is not designed to preserve open space. DC&GN-116
- Goal 4: **Inconsistent**. Open space land is being taken out of resource retention and recreational use. DC&GN-117
- Goal 4, Policy 4.2: **Does not apply**. Selling the land was never part of the Project. DC&GN-118
- Goal 4, Policy 4.4: **Does not apply**. The City already owns the land; there is no need to acquire it. DC&GN-119
- Goal 4, Policy 4.5: **Does not apply**. There is no public or semi-public right-of-way on the Preserve to use as recreational or open space. DC&GN-120
- Goal 4, Policy 4.6: **Inconsistent**. Buying out the District to allow something "other than open space or recreational use", which the oil field certainly is, cannot be consistent with a policy that seeks to acquire open space. DC&GN-121
- Goal 5: **Does not apply**. The Project has no recreation component. DC&GN-122
- Goal 5, Policy 5.2: **Does not apply**. The Project has no coordination component. DC&GN-123
- Goal 5, Policy 5.3: **Does not apply**. The Applicant does not integrate recreation planning efforts, and the Project does not have a recreation planning component. DC&GN-124
- Goal 5, Policy 5.5: **Does not apply**. The Project does not contribute to the development of a cross-town trail system; in fact, the Project disrupts an existing trail system. DC&GN-125
- Goal 5, Policy 5.10: **Does not apply**. This policy undoubtedly anticipated parkland being used as parkland, not an oil field. DC&GN-126
- Goal 6: **Inconsistent**. DC&GN-127
- Goal 6, Policy 6.2: **Inconsistent**. DC&GN-128
- Goal 7: **Inconsistent**. DC&GN-129
- Goal 7, Policy 7.1: **Inconsistent**. DC&GN-130
- Goal 7, Policy 7.2: **Does not apply**. The Preserve is open space that provides recreation and resource management. The Project removes recreation and resources within an existing open space area. DC&GN-131

- Goal 7, Policy 7.3: **Consistent.** DC&GN-132
- Goal 7, Policy 7.4: **Inconsistent.** DC&GN-133
- Goal 7, Policy 7.5: **Unclear.** DC&GN-134
- Goal 8: **Consistent.** DC&GN-135
- Goal 8, Policy 8.1: **Consistent.** DC&GN-136

– Air Quality Element
- Goal 2: **Consistent.** DC&GN-136
- Goal 2, Policy 2.1: **Consistent.** DC&GN-137
- Goal 2, Policy 2.2: **Does not apply**. The intent of this policy applies to public roads, not roads in a Preserve. DC&GN-138
- Goal 2, Policy 2.3: **Consistent** with safety for humans, **not sure this is consistent** with safety for wildlife. DC&GN-139
- Goal 4: **Inconsistent.** DC&GN-140
- Goal 4, Policy 4.1: **Unclear**. Where will truck queuing be discouraged? How? DC&GN-141
- Goal 4, Policy 4.5: **Inconsistent**. No landscaping is proposed for parking areas. DC&GN-142
- Goal 6 through Goal 9 (seven separate goals and policies): **Consistent.** DC&GN-143
- Goal 9, Policy 9.1: **Does not apply**. The City participates in the SCAQMD rule-development process, not the applicant. DC&GN-144
- Goal 9, Policy 9.2: **Does not apply**. The Project cannot be consistent with obtaining a permit that has not yet been issued. DC&GN-145
- Goal 9, Policy 9.3: **Inconsistent**. Unless the City requires elimination of diesel and substitution of CNG and electric for all motors on- and off-road, it is not supporting the forward-looking process to clean the air to 2023 and 2030 standards. DC&GN-146

– Public Safety Element
- Goal 3: **Does not apply.** DC&GN-147
- Goal 3, Policy 3.3: **Does not apply**. The fact that police and fire personnel are assigned to respond to calls from the Preserve is not assisting these agencies in monitoring safety. DC&GN-148
- Goal 4: **Consistent.** DC&GN-149
- Goal 4, Policy 4.1: **Does not apply.** DC&GN-150
- Goal 4, Policy 4.2: **Consistent.** DC&GN-151
- Goal 4, Policy 4.3: **Inconsistent**. Penn Street and other local streets will be utilized for the transportation of oil and gas during the Testing and Construction phases. DC&GN-152
- Goal 4, Policy 4.4: **Consistent.** DC&GN-153

– Noise Element
- Goal 1: **Inconsistent.** DC&GN-154
- Goal 1, Policy 1.2: **Inconsistent**. The Project does not avoid a noise problem. The Project creates a noise problem in a preserve. DC&GN-155
- Goal 2: **Inconsistent**. The project does not address impacts to wildlife. DC&GN-156
- Goal 2, Policy 2.1: **Inconsistent.** DC&GN-157
- Goal 2, Policy 2.2: **Consistent.** DC&GN-158
- Goal 2, Policy 2.4: **Inconsistent**. Equipment and activities will exceed noise standards. DC&GN-159
- Goal 2, Policy 2.5: **Inconsistent.** DC&GN-160

– Historic Resources Element
- Goal 1: **Consistent.** DC&GN-161

- Goal 1, Policy 1.2: **Consistent.** DC&GN-162

- **Habitat Authority Resource Management Plan**
  - Biological Resources Element
    - Goal BIO-3: **Inconsistent**. Damaging and permanently impacting populations of native plants and wildlife and then hoping you can replace them elsewhere is not "maintaining all populations of native plants and wildlife". DC&GN-163
    - Goal BIO-4: **Consistent.** DC&GN-164
    - Goal BIO-5: **Does not apply**. The applicant is not implementing monitoring programs. Providing funding is not "implementing". DC&GN-165
  - Cultural Resources Element
    - Goal CULT-1: **Consistent.** DC&GN-166
    - Goal CULT-2: **Does not apply**. Building a new oil field in a preserve is not preserving and interpreting "remains". DC&GN-167
    - Goal CULT-4: **Consistent.** DC&GN-168
  - Public Use Element
    - Goal USE-1: **Inconsistent**. Project removes trails, and paves and widens trails and roads, thus destroying natural resources. DC&GN-169
    - Goal USE-2: **Does not apply**. The Project has nothing to do with enforcement on the Preserve. DC&GN-170
    - Goal USE-3: **Inconsistent**. The Project removes trails and proposes closing a trail to accommodate the Project – this reduces the public benefit of the trail system. The comment that "funding through Project implementation would be available to improve the Preserve's trail system" is speculative. DC&GN-171
    - Goal USE-4: **Inconsistent**. The Project grades over 189,000 cubic yards of material, permanently removes natural resources, and impacts enjoyment of the quiet and aesthetics of the Preserve. DC&GN-172
  - Visual Resources and Aesthetics Element
    - Goal VISUAL-1: **Inconsistent**. Moving 189,000 cubic yards of material, impacting over 30 acres with grading, new roads and vegetation removal, and placing an operating oil field in a preserve is not consistent in any way with this goal. DC&GN-173

- **Los Angeles County General Plan**
  - Safety Element
    - Policy 15: **Does not apply**. This policy applies to County departments. DC&GN-174
    - Policy 16: **Does not apply**. This policy applies to County departments. DC&GN-175
    - Policy 17: Consistent if information will be submitted to the County and not the City as cited in the revised DEIR. DC&GN-176
    - Policy 20: **Does not apply**. This policy applies to County departments. DC&GN-177
    - Policy 21: **Inconsistent**. The route is not the only factor affecting safe transport. DC&GN-178
    - Policy 22: **Consistent.** DC&GN-179
    - Policy 25: **Unclear.** DC&GN-180
    - Policy 26: **Inconsistent.** DC&GN-181
    - Policy 27: **Does not apply**. There is no discussion as to how the Project does this. DC&GN-182
    - Policy 28: **Does not apply**. This policy applies to the County Fire Department. DC&GN-183

- Policy 29: **Consistent.** DC&GN-184
- Policy 30: **Does not apply**. The Project is not upgrading any communications. DC&GN-185
- Policy 31: **Unclear.** DC&GN-186

Summary – Policy Consistency Analysis

- **Whittier General Plan**
  - The Project is inconsistent with nearly half of the General Plan goals and policies cited in the revised DEIR, and almost one-quarter of the cited goals and policies do not apply to the Project. We did not conduct a literature review to determine if there were additional General Plan goals or policies that apply to the proposed Project which were not cited in the revised DEIR. DC&GN-187
- **Habitat Authority Resource Management Plan (RMP)**
  - The Project is inconsistent with nearly half of the RMP goals cited in the revised DEIR, with one-third of the cited goals not applying to the Project. We did not conduct a literature review to determine if there were additional RMP goals that apply to the proposed Project which were not cited in the revised DEIR. DC&GN-188
- **Los Angeles County General Plan**
  - The Project is inconsistent with one out of six County General Plan policies cited, and fully half of the cited policies do not apply to the Project. We did not conduct a literature review to determine if there were additional General Plan goals or policies that apply to the proposed Project which were not cited in the revised DEIR. DC&GN-189

While this concludes our comments on the DEIR, we have a continuing interest in the Proposed Project and would like to participate in the public hearing process that is to follow. Please include our names and addresses on lists for public notices in its regard. Also, if you have need of clarification on any part of this letter, please do not hesitate to call either of us.

Sincerely,

Dave Cowardin
8562 La Sierra Avenue
Whittier, California 90605
562-698-4131

Gina Natoli
2935 Leopold Avenue
Hacienda Heights, California 91745
626-330-2329

LAW OFFICES OF DICKERSON & DICKERSON
THE BANK BUILDING, SUITE 201
13006 EAST PHILADELPHIA STREET
WHITTIER, CA 90601-4211
TELEPHONE: (562) 945-1236
FAX: (562) 945-3339

David M. Dickerson, Esq. *Matthew D. Dickerson, Esq.*

Appendix M

July 21, 2011

Jeff Adams
City of Whittier Community Development
13230 Penn Street
Whittier, CA 90602-1772

RE: Comments on the Revised Draft Environmental Impact Report (DEIR) for The Whittier Main Oil Field Development Project

Dear Mr. Adams

As a resident who lives only about 1,000 feet from where the revised consolidated drilling site may be located, I appreciate the opportunity to provide my input and that of my wife, Marianne. Previously I timely submitted comments as to the original draft E.I.R. and an additional copy of this four page letter, less exhibits previously submitted, is attached.

DickersonD-1

Our initial comments said ". . . it is absolutely essential that the diversity of wildlife and the preservation of the corridor are not compromised by drilling activity. If this primary directive is violated then no drilling should be done" (see Page 3 of my letter). I have reviewed the 33 page comment letters dated July 14, 2011 submitted by Habitat Authority and join in their statement that "The Habitat Authority supports consideration of any alternative that would place the proposed project outside of the Core Habitat in along the edge of the Preserve . . ." (Page 2 of their comments).

The major political issue is the perceived impact of the Project on residents versus the impact on the Core Habitat, and whether the residents, who vote, or the wildlife, who don't, will prevail. Our review of the objective data does not support the mostly speculative and emotional concerns as to the negative impact on the residents, but does support the reality of that negative impact on the Core Habitat. However, if Catalina is the primary access during construction then the actual impact on those living on Mar Vista up to Colima and on Catalina, would have a significant negative impact and therefore we would be against this alternative.

We have attempted to separate the speculative and emotional concerns that the words "oil drilling" raise from the objective realities provided by the E.I.R. and comments. If the alternatives can provide income to Whittier, while preserving the Core Habitat, we support this.

Yours truly,

David M. Dickerson

RECEIVED
JUL 21 2011
Community Development

Jeff Adams
City of Whittier Community Development
13230 Penn Street
Whittier, CA 90602-1772

RE: Comments on the Draft Environmental Impact Report (DEIR) for The Whittier Main Oil Field Development Project

FROM: Ocean View Neighborhood Watch Committee

Dear Mr. Adams

These comments are offered by the undersigned member of the Ocean View Neighborhood Watch Committee which includes four home on Linda Vista and all homes on Ocean View, north of Linda Vista, for a total of fourteen homes, some as close as 500' to the proposed project.

Overview DickersonD-2

These comments compare three routes termed "Road A" "Road B" and "Road C" and ask the question whether Road C could be the superior environmental alternative. Thinking out of the box the comments also ask the question whether a view of the oil drilling process from the Nature Center Amphitheater could be an educational tool rather than something to be hidden.

All comments are grounded on the prime directive of both the of the Habitat Authority and Hillside Ordinance and that is preservation of open space, diversity of species and the wildlife corridor not be compromised. In addition, the impact on nearby homes must be mitigated to insignificance.

Technical and Procedural Approach to Measurements

The accuracy of the maps, distance and profile, attached as exhibits were subject to certain limitations. A Garmin E-Trex G.P.S. was used to plot way points which were then downloaded to a TOPO topographic mapping program. The maps are current as of 1981 and the Garmin G.P.S. notes it is accurate within 20 feet, but the placement of the way points on the map seems very accurate. A tool on TOPO known as the "Compass" was applied to the map to measure both distance and elevation profiles from the south edge of the consolidated drilling site and the point Road C came closest to the impacted home. Way points were accessible from the property boundaries closest to the drilling site on Ocean View, Davista and Catalina. On Romero Drive, San Lucas, Lodosa and Cielo Vista way points had to be taken at the curb closest to the drilling site in

front of the homes and therefore the depth of the property must be subtracted to arrive at a more accurate distance. Also, the anchor point from the compass was placed slightly to the south of the southern most point of the consolidated site, thus decreasing the distance to the homes slightly.

Background of Comment Preparer

David Dickerson is an attorney who has had his practice in the Historic Bank of America Building in Uptown Whittier since 1978. He helped draft, in 1979, the initiative and resulting Hillside Ordinance which currently protects our hills and whose primary purpose "is to preserve for future generations the unique heritage of open space and natural environment." He is a founding member and officer of the Friends of the Whittier Hills and of the Whittier Conservancy and won an injunction against the City of Whittier under the California Environmental Quality Act (CEQA) on behalf of the predecessor of the Conservancy - Save Our Historic Buildings. He is active in Scouting and created the Skyline Trail Hike through the Puente Hills which twice each year since 1998 had significant numbers of Scouts hiking the 10.5 mile trial. He lives with his wife, Marianne, on Ocean View, only about 700 feet from the original proposed oil drilling site.

DickersonD-3

Impact on Homeowners

the baseline noise and vibration element of the DEIR as measured in about December of 2009 (see table 4.5-5 of the DEIR) shows the quiestest area is on the Deer Loop nature trail at night is 35dBA and the noisest is the corner of Mar Vista and Catalina during the daytime at 62.9dBA. The issue for homeowners is what will be the increase over these baseline levels because of drilling activity. The data needs to be revised due to the movement of the drilling site about 1500' further up Canada Verde Canyon. The current data suggests that both sound and vibration can be mitigated and increased distance alone is a significant factor. Use of Road C would increase noise for homes at the East end of Lodosa during times trucks were accessing the site. However, since these homes are close to Colima, the relative increase would be less dramatic then home further from this major roadway. Homeowners on Ocean View are shielded from the site by a 25' to 50' gain in altitude between their homes and the distance increased, about 1000 feet by the consolidated site. Revised tables are required to confirm whether most nearby homeowners would experience less noise due to the greater distance. See Exhibit as to Lodosa Homes.

Impact on Biological Resources

DickersonD-4

Since the primary purpose of the Habitat Authority and the Hillside Ordinance is to protect and preserve diversity of species we adopt the comments of the Habitat Authority and Citizens Technical Advisory Committee and join in their concern as to the Consolidated Drilling Site being pushed back into the core of the Habitat and the access road slicing right through it. Attached as Exhibit C is a maps showing Roads A, the alternate road to Savage Canyon Landfill, B the alternate suggested by MDEC an C the alternate we suggest. Attached as Exhibit D1, D2 and D3 are profiles of those roads. From personal observation of crumbling road edge, major reinforcement of the edge of Road A must be done to broaden it enough for large oil trucks to safely use it. Add to this brush clearance and you now have a wide swath cut through the core. This road represents a serious threat to the core of the preserve. The corridor alignment is not fungible and once fragmented cannot be duplicated. Road C solves these problems.

DickersonD-5

Road Alternative C

The original Matrix road severely impacted many homeowners and it has been eliminated, but the problem has just been transferred to the wildlife. Road C exits at Colima as did the Matrix road, but turns sharply north a few feet from the Colima entrance. The trick is to aline any new section to connect with the existing road from the Consolidated Drilling Site side in a way there is minimal impact on wildlife to the North and homeowners to the South. As explained in more detail below a visual sight line from the amphitheater, but not homes, could actually be seen as an advantage because of the ability to watch oil operation from the safety of the Amphitheater. Road A is three miles long and has a gain of 551 feet and loss of 664 feet and Road B runs on residential streets right past a significant number of homes and further impedes traffic on Mar Vista (see Exhibit ____). Although Road C may require some new construction and a culvert it is the best balance to accomplish the prime goal of not fragmenting species diversity in the core.

Least Biological and Human Impact

Although all alternatives have some impact, Road A would, according to the MDEC report, fragment the core area and disrupt traffic on Painter and Road B would be a disaster as to impact on traffic and homeowners along Catalina and Mar Vista. The issue of the impact of Road C on the wildlife that migrates through the tunnel would have to be determined and the visual impact from the amphitheater would be significant, however could be seen as an advantage.

A New "Vision" On Oil Production

DickersonD-6

It is rightfully suggested that the undisturbed natural view from the amphitheater at the Nature Center would be disrupted by being able to see the oil road or drilling process. However, this view could actually become an asset. Geological engineer's could give talks along with the Rangers and actually point to various aspects of the drilling process.

For over 100 years, over 500 wells have been drilled in our hills and the epicenter of processing back to this historic site and thus eliminate a portion of the northern end of the consolidated site, reducing pressure on Canada Verde - the heart of the preserve?

It is admitted that the quiet employment of the Deer Loop Trail would be degrated, however other trails including the Skyline Trial, are available in the Habitat Authority boarderline.

In organizing the Skyline trail Hike I arranged for Civil Engineers to educate the Scouts about modern landfill process as they stood on Nike Hill about the landfill at the trail head of the hike. In addition an old Army Guard shack, probably the Nike missle site, is there for the Scouts to see.

Why not view oil drilling as part of what is the reality of our hills. Both the landfill and oil drilling have required compromise over the years, but without those compromises we would not today have a wildlife corridor.

It goes without saying that it is absolutely essential that the diversity of wildlife and the preservation of the corridor are not compromised by drilling activity. If this primary directive is violated then no drilling should be done

Conclusion DickersonD-7

The attached topographic maps and profiles graphically represents the comparison of Roads A, B & C. Road C, if carefully aligned, would balance between wildlife migration corridor to the North and homeowners as sensitive reception to the South and completely eliminates the need for Road A, thus saving the corridor and diversity of species or Road B thus preserving homes.

Jeff Adams

From: DUNC100@aol.com
Sent: Wednesday, July 20, 2011 3:59 PM
To: Jeff Adams
Subject: Drilling in the hills

DuncanT-1

Dear Mr. Adams,

I'm writing to beg you to please come to your senses about drilling in our hills. There are hundreds of reasons not to drill, as have been stated over and over again, and only one reason to drill.....Money! Please learn from your mistakes in the 70's when you allowed all those apartments to be built in the uptown district, ruining the beautiful neighborhoods that once existed. They did it for the money, to bring in more revenue for the city and all they got was a lower class environment that brought lower class people into Whittier. It lowered the property values drastically and still makes it very hard to sell the property around those apartments. The same thing is happening here with the oil drilling. Instead of living in the beautiful town of Whittier nestled in the hills, it would become an industrial city of Whittier where big trucks travel the streets throughout the day. The time is now, to start a new trend of going GREEN! But you are leading our city down the opposite path of environmental destruction. There are so many other options to bring money to our town, sure it will take a little more work but I know you can do it. Have you witnessed the thousands of people who enjoy our beautiful hills everyday? Why not charge an annual permit fee to bring in some money?
Please don't drill in our beautiful hills. Please keep our homes a place where we want to come home to. I don't want to have to leave our beautiful city after 33 years. Please think long and hard about this decision!

Sincerely
Teri Duncan
13630 Bailey St.
Whittier, Ca. 90601

Written Comments

RECEIVED
JUL 11 2011
Community Development

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Dan Duran
Address: 8103 Catalina Ave
City, St., Zip: Whittier, CA 90602
Phone #: 562.693.3259
Email: ddurana@whittier.edu

COMMENTS:

The current EIR once again fails to contain direct input from those homeowners and other residents who will be most negatively impacted by this supposedly thorough impacted.

DuranD-1

What happened to the commitment made at the scoping session to gather first hand opinions and other input from the hundreds of homeowners who reside adjacent to the proposed drilling project area?

This lack of concern for the homeowners is both appalling and clearly demonstrates the biased and non-participatory approach being undertaken

Dan Duran

Daniel and Alicia Duran
8103 Catalina Avenue • Whittier, CA 90602
Tel 562.907.4931 • Mobile 213.369.2368 • Fax 562.698.1005
Email: Dduran@whittier.edu

July 21, 2011

Attention: Mr. Jeff Collier
Regarding: Revised Draft EIR for Proposed Matrix Oil Project

Dear Jeff: Alicia and I live at 8103 Catalina Avenue which is virtually ground for the proposed Matrix Oil drilling project. As you are aware, given our frequent encounters regarding this project, I have been very active with WHOW in our efforts to educate the Whittier community about the risks associated with the propose project. I hope that our efforts have resulted in a more than anticipated receipt of comments from the community regarding the proposed project.

WHOW has submitted its input on the proposed project and this brief set of comments reflects some very personal and real considerations that have not been adequately addressed, if considered at all, by the Revised Draft EIR. Those core concerns include:

A. **Continued failure by Matrix and MRS to contact and gather first-hand data on the perceived and potential negative impact of the proposed project on the residents that live adjacent to or near the proposed project**. Over the last year I have counted scores of visits by Matrix, MRS, and City of Whittier officials and representative who have parked directly across from our home and who have proceeded to the proposed site to conduct tours and gather information. Not once have we been contacted by any of the aforementioned proponents and/or supposedly neutral parties to inquire about our concerns regarding the proposed project. I have been repeatedly assured, most recently by MRS at the June 30th meeting hosted by the City. I specifically asked the question as to why, to my knowledge, not a single homeowner bordering the proposed project had been contacted about their concerns and the potential impact of the project on their quality of life. I was assured at that meeting, as I had been in verbal discussions with the MRS and Matrix management team at several previous public meetings, that we would certainly be contacted—that has NEVER occurred. Hence, it is evident that both the spirit and actual conduct of the data gathering of the proposed project lack integrity.

DuranD-1

B. We have read the report and have studied it in great detail and are very concerned that **the "new" EIR fails to address the significant negative impact of the proposed project on property values, mitigation efforts to reduce congestion specific to our street (Catalina), and health considerations for those residents who have the closest proximity to the proposed project.** Once again, I am

DuranD-2-4

very concerned as are all of our neighbors along Catalina that not one person from Matrix, MRS, or the City has demonstrated an earnest interest in knowing what our views are of the proposed project. This second EIR had a wonderful opportunity to demonstrate integrity and objectivity via a thorough data gathering approach and the case is that it failed to do so by virtue of ignoring input and concern for the one species that will be most impacted, the human species living along Catalina Avenue and the other adjacent neighborhoods and streets.

Jeff, I recognize that you will receive a torrent of input regarding the current Draft EIR and while I believe that you and our elected City officials and City management team have a genuine concern for the City and want to do the right thing, the current Draft EIR is even less acceptable than the initial one. It is less acceptable and more suspect in respect to both the methodology used to gather the data and the analysis used to digest the information because not once has Matrix or MRS called us by telephone, knocked on our door, or otherwise made a genuine effort to understand why we are opposed to the project and what they could do to make it an acceptable proposition. In short, we are opposed to this project for a multitude of reasons, ranging from the dire impact on our local quality of life, increased health risk, to the lack of integrity demonstrated by Matrix.

Sincerely,

Daniel Flores Duran

Jeff Adams

From: savemontebellohillsC.F. [savemontebellohills@gmail.com]
Sent: Wednesday, July 20, 2011 10:11 PM
To: Jeff Adams
Subject: Comments on DEIR for the proposed Whittier Hills oil project

Date: July 20, 2011

To: Jeff Adams-Community Development Department, City of Whittier
From: Margot Eiser
2828 Via San Delarro
Montebello, CA 90640
323 728 7066
margoteiser@ojaibroadband.net

Acknowledgment of receipt of these comments on the Draft Environmental Impact Report for the proposed Whittier Hills oil project is requested.

Please include these and any other comments I may submit in the forthcoming document:

The Environmental Impact Report must not deny the significant negative impact on future generations which would be caused by taking away a significant part of the Nature Preserve and it's trail and ecosystem, since there is no way to get more contiguous land in this area or to adequately mitigate the destruction which would be caused by the proposed project.

In Table 3-3 it must be considered that the proposed oil drilling project would have a eco-toursist repelling, negative impact on the economic environment both in Whittier and in the nearby City of La Habra, location of a Hilton Garden Inn, mentioned in the DEIR on page 3-6, by reducing the natural qualities of the protected hillside environment which could be used if left intact, as an alternative to the nearby Montebello Hills and other nearby hilly areas, which are currently still functioning as active oil fields and thereby off limits to any recreational activities. EiserM-1

The DEIR Must address that the proposed project shows a lack of environmental justice which affects the entire City of Whittier and the entire region, not just those of certain ethnic or economic groups, by imposing currently and potentially polluting and ecologically degrading oil exploration and drilling on an area which the voting public previously determined to be preserved as natural open space. EiserM-2

The City of Whittier must seriously consider utilizing less damaging alternatives in order to both earn some extra money as well as preventing the damage to the irreplaceable Preserve which has an intrinsic and future value beyond mere money. EiserM-3

Besides the No Project Alternative which must be seen as the most logical way to avoid negative environmental impacts and can be seen as a way to provide an opportunity to make the the proposed site even more ecologically significant and valuable by gradually eliminating non-native species to allow for the natural enhancement of the area, serious consideration may also be given to favoring Alternative 5.1.2.1 Savage Canyon Landfill Site (1) Figure 5-3 as least invasive of the preferred and other alternatives, even though ".... this alternative would require significant time-consuming amendments to existing state Landfill permits, which would create land use impacts.", it would still have less negative impact on the environment because "...Even with the

impediments associated with land use; reduced recovery of oil and gas, and a decrease in the Landfill life**, this alternative has the substantial environmental benefit of**

preventing any development within the Preserve while still recovering some of the oil and gas. " EiserM-4

Furthermore, it is possible that human residents in areas close to the land fill know they are already being exposed to possible toxins etc., and so could be less likely to express objection to an additional source of environmental hazards. EiserM-5

Regarding the Amended CUP, Map of New Oil Site-May 5, 2011 and the proposed running of a pipeline along Arroyo Pescadero Trails, all aspects of each of these must have official CEQA documentation including listing of all potential adverse environmental impacts earth-moving, wall building, situation of a stationary fire source, road grading and traffic, etc., would have on the intended use by people, animals and plants of the surrounding land as a Nature Preserve. EiserM-6

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Janet Fattahi
Address: 14320 E Oak St.
City, St., Zip: Whittier, CA 90605
Phone #: 562-696-8576
Email: janfattahi@yahoo.com

COMMENTS:

I am strongly opposed to leasing oil drilling rights in the Whitter Hills. The drilling would damage the environment during the construction and operation during the lease. FattahiJ-1

Money from Prop A was used to purchase the land, when the intent was to safeguard the environment. FattahiJ-2

Great damage to the water safety will occur due to water cracking as proven in many other drilling sites. FattahiJ-3

The oil companies always say nothing will happen but fires, spills injuries and even death have occurred at many sites. FattahiJ-4

There seems to be conflicts of interest between the county, city and lobbyists. FattahiJ-5

There is reason to question

how the implementation would change over the years of the lease. There is no safeguards to the citizens when the city extends or changes or fails to enforce the terms of the lease. FattahiJ-6

The ~~closed~~ meeting format should have been and open discussion so we could hear the concerns of our fellow citizens. FattahiJ-7

An oil spill occurred when Chevron managed the fields and the ground is still contaminated. FattahiJ-8

We sit on active earthquake faults which could rupture and cause damage to our neighborhoods. FattahiJ-9

Slant drilling under our homes could cause dangerous geologic gaps the could be unstable. FattahiJ-10

RECEIVED
JUL 11 2011
Community Development

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Faith Fischer
Address: 8225 Via Escondida (Friendly Hills)
City, St., Zip: Whittier 90605
Phone #: 562 883-1328
Email: goldbirdie@msn.com

COMMENTS: No caps all one word

FischerF-1

I am very much in opposition to oil drilling in our Whittier Hills — it is a perversion of the land use as a natural habitat.

FischerF-2

Specifically, I am totally against the pipeline which is to be excavated and placed along Colima — from Rodosa down to Lambert. I read a letter on the subject written by my husband, Peter J Fischer P.h.D., Professor Emeritus of Geological Sciences CSU Northridge and Friendly Hills property owner.

I will leave a copy tonight as part of my public comment.

Faith Fischer

RECEIVED
JUL 11 2011
Community Development

faith fischer part of comment letter

Oil Drilling - Why Friendly Hills Property Owners Should Be Concerned

By: Peter J. Fischer, Ph.D, Professor Emeritus of Geological Sciences CSU Northridge, and Friendly Hills property owner

The pipelines to carry gas and oil produced by the Oil Company will require one day of construction for every 50 feet of pipeline (about 12-18 months). The pipelines will run *along the western southbound lane of Colima road, from Lodosa Road down to Whittier* Blvd and continuing down to Lambert. The installation will require the use of jackhammers as well as trenching and welding. The construction of these pipelines will be accompanied by all day noise, dust, dirt, diesel fumes, and horrific traffic congestion along eastern Mar Vista and Colima. South bound Colima will be reduced to one lane *for traffic, as the lane to the west will be inoperable due to pipeline construction.* For those property owners needing to enter and exit your driveways on Colima...Good Luck! FischerF-3

Our new president of the Friendly Hills Homeowner's Association was quoted in the Whittier Daily News as saying oil drilling will have no direct impact on Friendly Hills property owners...**I do not agree with this assessment**.

Winds will carry the dust, dirt, and fumes blowing dominantly to the south and west over all the homes along Colima. In the event of a rare yet possible pipeline leak or rupture, the flames from a resulting explosion would most certainly have a "direct impact" on our *homes. Yes, this is a rare occurrence,* ***but it does happen****. In San Bruno, Northern* California, such a pipeline failure wiped out an entire block. More recently, an oil pipeline ruptured in Montana, which resulted in **42,000 gallons of oil leaking** into the Yellowstone River. Homes were forced to be evacuated and at least one home sustained damage. FischerF-4

In the event of any kind of accident or disaster during or after the Colima pipeline construction to our homes, cars, or involving personal injury...**who is legally liable**? It would be wise to check with your homeowner's policies. FischerF-5

RECEIVED
JUL 11 2011
Community Development

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Peter J. Fischer, Prof Emeritus CSULB North-ridge (Geol Sc

Address: P.O. Box 5787, Whittier CA 90607

City, St., Zip:

Phone #: 562-818-8764

Email: —

COMMENTS:

Will be submitted in writing by 7/21/11. Basically my comments will be directed at the Geological section of the DEIR. FischerP-1

RECEIVED
JUL 11 2011
Community Development

Save Our community
8655 Ladis View
Rosemead Ca 91770

Whittier Oil field DEIR Comments

We are distressed that this DEIR is no improvement of the previous one and did not include consideration of our previous comments on the previous DEIR which we include herein by reference.

4.4.1.1 why cant the access road follow the Pipeline. FlournoyJ-1

4.4.1.2
Structurally the Whittier fault does not bound the southern margin of the Puente Hills

There are two instences of the Whittier Fault.
The Ancestral Whitier fault was a normal fault which raised the Santa Ana Mountains and thousands of feet of offset in the Whittier area. Itcontrols the Northern boundary of the Whittier and other Oil fields and the Northern/ Eastern boundary of the Montebello Oil field- provide a cross section.
The Whittier fault was reactivated as a strike slip fault as part of the San Andreas System FlournoyJ-2

The Whittier fault predates the Puente Hills by millions of years, the uplift of the Present Puente hills was independent of the Whittier fault however the Whitier fault has affected the Puente hills on both sides of its length. The Whittier fault and Puente Hills thrust intersect at depth. It is postulated that an event on the Puente Hills could “trigger” an even on the Whittier and it is postulated that this is what happened in the Whittier earthquake and aftershock.
References wore provided in our prior comments

Map 4.4.4 and 4.4.5 do not show the Whittier fault connected across the Whitier narrows as is shown on the latest USGS/CGS map.
We mentioned this extensively in our comments and is an inexcusable error which must be corrected as it affects the length of the Whittier-Elsinore fault and hence it's possible seismicity. FlournoyJ-3

The map 4.4.5 also does not show the Puente Hills thrust fault which is the Fault that raised the Puente Hills. FlournoyJ-4

There are no maps of local faults within the oilfield, please provide
This and oilfield pool data is needed to determine the location of proposed well paths from schools and homes. FlournoyJ-5

Also the location of potential FRACKING
we are not opposed to FRACKING in the Whittier Hills but it must be considered in the EIR. FlournoyJ-6

page 4.4.6
There appears to be obsolete data Multiple segment breaks of 7.5 could occur, we provided FlournoyJ-7

references in our comments to the first EIR which were incorporated by reference.

4.4.6 "strong seismically induced ground shaking"
HOWSTORNG, provide a spectral analysis, seismograms etc FlournoyJ-8

4.4.7
" has a length of approximately 25 miles, between the Whittier Narrows at the northwest and the Santa Ana River "
Measure between "near the Santa river to "Near the Raymond Hill fault" which will give more like 35-40 miles giving 7.2-3 for single segment break and 7.5-6 for multi segment breaks
(These numbers were debeloped by both URS corporation and LACODPW for the Beverly blvd bridge project. FlournoyJ-9

Provide an exact reference to SCEC FlournoyJ-10

Table 4.4.1 is inadequate
Whittier needs to be revised to include multi segment breaks
Puente Hills thrust needs to be added for both single and multi segment breaks
San Jacinto and several San Andreas segments and multi segments need to be added
Expected duration of shaking must be added
Depth to bedrock (Shear wave velocity 2500 m/sec basin depth amplification must be considered
source, path, and sie effects must be considered FlournoyJ-11

10% PSHA maps are interesting for historical comparisons however the latest maps(2% exceedence) must be used 10% maps do not meed the 2007 building code.
and since this is a hazardous project 1% must also be considered FlournoyJ-12

In addition to map based PSHA computer simulations from SCEC Cbershake project and USGS Shakeout/ Terra Shake projects must be considered FlournoyJ-13

Liquefaction and landslide analysis
"Magnitude and proximity of the earthquake; "
There must be consideration for distant large magnitude earthquakes- provide complete spectral accelerations FlournoyJ-14

"Duration of shaking; "
Which is why we require you to add duration of shaking to your Table 4.4.1
Both large local short events and large distant long duration events must be considered FlournoyJ-15

How much liquefaction may be expected at both short and long duration events and what are the design parameters for the pipeline? FlournoyJ-16

Differential Settlement
Thanks for mentioning differential settlement but you must quantify how much is expected and how much must be designed for- tanks, pipeline FlournoyJ-17

How much motion do the tanks have to be designed for at each period? FlournoyJ-18

"Elongated structures, such as pipelines, are especially prone to

damage as a result of differential settlement. "
How much differential settlemen

FlournoyJ-19

"Pipe connections at storage facilities are especially
vulnerable to the differing earthquake response between buried pipe and rigid structures "
how much differing earthquake response

FlournoyJ-20

FlournoyJ-21

Earthquake-Induced Landslides
landslides of UN-engineerd cuts and fills , roads, pads must be considered
as with liquefaction analysis for both short and long period events, short and long duration events must be considered

4.4.2.1
An Example of why the entire section is totally inadequate

"The Uniform Building Code defines different regions of the United States, categorizing them by Seismic Zones 1 through 4, with Zone 1 having the least seismic potential and Zone 4 having the highest seismic potential. The Project Area is located within Seismic Zone 4; accordingly, any potential future oil development and construction would be required to comply with all design standards applicable to Seismic Zone 4. "

The Uniform building code was replaced 5 years ago
Seismic zone 4 is wholly obsolete

FlournoyJ-22

4.4-15
Special Publication 117 - Guidelines for Evaluating and Mitigating
Seismic Hazards in California (CDMG 1997).
was updated in 2008
It should be thoroughly read and understood prior to rewriting this section

FlournoyJ-23

4.4-17
However, up to 60 directionally drilled wells would potentially be
completed across the Whittier Fault and/or the Puente Hills Thrust Fault.

Please do not make generalities
The oil field does not go North of the Whitier fault and the Puente Hills fault is too deep to be intersected by any wells.
However there may be minor faults.
A map of the oilfield is required showing all known folds and faulting

potentially result in peak ground accelerations of 0.4861 g.
This figure is way too low- it is most likely well over 1g
It needs to be hand calculated using the latest data and methiods

FlournoyJ-24

lateral spreading 4.4-18
" Such ground movement could
cause differential settlement and lateral spreading, resulting in potential damage of proposed oil and gas drilling equipment, proposed pipelines, and related Project facilities. "

FlournoyJ-25

above 4.4-11 is stated
"Based on the soil and rock materials present within geotechnical borings drilled at the site, the potential for lateral spreading during a strong seismic event is not anticipated to occur due to the lack of liquefaction (Heathcote Geotechnical 2011) "

FlournoyJ-26

Correct to omit lateral spreading in 4.4-18- we agree- it is unlikely

"As discovered during the 1971 San Fernando earthquake and the 1994 Northridge earthquake, existing building codes are often inadequate to completely protect engineered structures from hazards associated with large ground accelerations. Therefore, potential seismic impacts and associated damage to structures from a major earthquake on the nearby Whittier Fault, Puente Hills thrust fault, or any other regional fault, would be considered significant. "

FlournoyJ-27

GR1A
" withstand anticipated ground acceleration in the
Project Area, based on the California Building Code. "
As you correctly state above the CBC is totally inadequate and is a minimal level in any case
The SHMA and SP-117 must be considered as well as engineering standards of practice

"The calculated design base ground motion for project components shall consider the soil type, potential for liquefaction, and the most current and applicable seismic attenuation methods that are available. "
Wee agree- use computer modeling and simulations, synthetic seismograms
The project must be shown to be feasible

The calculated design base ground motion must be shown in the FEIR

FlournoyJ-28

GR1b The amount and duration of seismically induced groundshaking must be included in the FEIR.

FlournoyJ-29

GR1c The Los Angeles County Manual for the preparation of geotechnical reports msut be considered
Any SHMA report must be reviewed and approved "Prior to the Approval of the Project by the Lead Agency"

FlournoyJ-30

GR1d add Los Angeles County Grading guidelines
Change California building code to Los Angeles County version of the California building code

FlournoyJ-31

or Californai Building code with Los angeles county amendments.

Hydrology
Expose people or structures to a significant risk of loss, injury, or death involving flooding,

We asked that the EIR analyze the USGS ARKSTORM findings
we do not find this necessary analysis
The project must be shown to be feasible.
IT has not been shown that the long road and other infrastructure is feasible

FlournoyJ-32

Fire

WE asked that all the highly flammable foreign invasive eucalyptus in the project area and surrounding be removed but do not see any analysis of this. This must be provided.

FlournoyJ-33

We do not see any analysis of water supply and tanks for seismic safety/ availability after a seismic event..

FlournoyJ-34

Water tanks failed in Topanga canyon during the relatively moderate Northridge earthquake.
Tank suitability for service;
- Brittle fracture considerations; must be evaluated and mitigated

FlournoyJ-35

FlournoyJ-36

Transportation
We asked in out scoping comments that the proposed access road be analyzed for both seismic stability and ARKSTORM flooding
we cannot see that either has been done

The proposed road has not been shown to be feasible.
In general we do not favor a widened access road to the dump.
We do not support traffic through the reserve
We think the shortest road via Catalina or directly East to Colima would be best.

Jeff Adams

From: Lori Frear [slfrear@gmail.com]
Sent: Wednesday, July 20, 2011 10:29 PM
To: Jeff Adams
Cc: Jeff Collier
Subject: Comments on Draft EIR Report- Drilling for Oil and Gas in Whittier Hills

My name is Lori Frear. My husband, Steve Frear, and I are owner/residents at 14515 Eastridge Dr., Whittier, CA. Our home is approximately 1000 feet from the back fence line of Mar Vista School.

We are asking our Whittier City Council to vote against the proposed oil and gas drilling in the Whittier Hills.

We oppose the gas and oil industrialization of our hills adjacent to our schools, neighborhoods, and recreation trails. Views FREE of industrial architecture, HEALTHY air and water, and an environment FREE of additional traffic, noise and vibration; these are important to us. FrearL-1

Our neighborhoods are too close to the proposed industrial site for drilling and processing natural gas and oil. The environment literally up the hill from my home will affect my home life. I currently enjoy healthy air and quiet. From reports of other homeowners near oil drilling sites in Whittier, their complaints about odors and noise have not been addressed FrearL-2 by the oil company. The views, quiet, and air quality of our recreation trails would be negatively impacted. FrearL-3 In the case of an earthquake, all drilling, gas, and oil lines could be damaged and cause contamination of water, soil, and air. FrearL-4 Yearly, the preserve is high risk for fire due to the nature of the hills. A fire storm would be devastating to an oil and gas processing plant, and lead to higher risk to the homes and school nearby. FrearL-5 We would like the preserve to remain a preserve of wildlife and habitat above and below the ground.

We are old enough and have observed that in any industry people make mistakes, accidents happen, and natural disasters occur. Promises by oil companies, and procedures for safety and security are not fail safe. Our society and culture is so driven by money that there would be no moderation in this operation. If the control were to be given to an outside agency such an oil company, there would be no regard for the land, the people, or the community.

Jeff Adams

From: Fuchsia191@aol.com
Sent: Tuesday, July 19, 2011 9:22 PM
To: Jeff Adams
Subject: oil

it will it ruin our hills and will ruin our community

Fuchsia191-1

Jeff Adams

From: jamie garcia [jamiegarcia78@hotmail.com]
Sent: Wednesday, July 20, 2011 11:09 PM
To: Jeff Adams

Mr. Jeff Adams,

We live here on Penn street and do not agree with the oil trucks coming down our street. It is a REAL BIG CONCERN with my family of 5 and that consist of 3 children. I

GarciaJ-1

do not feel safe with those trucks barreling down the hill, one day they could crash and something horrible can happen and my family could be one of those. And also the

GarciaJ-2

chemicals that will be coming from the oils will be devastating to my children's health and also my husband and I. We do enjoy going to the park, walking up our streets

GarciaJ-3

BUT WILL NOT FEEL SAFE ANYMORE WITH THOSE 80 TRUCKS COMING DAY AND NIGHT 7 DAYS A WEEK. And parking here already is a joke what are we suppose to do if

you take all our parking away, we will have to park around the block, that's not safe when i come home at night with my family with my children there are crazy people out

there. WE LOVE LIVING HERE AND ALREADY TOLERATE DUMP TRUCKS BUT WILL NOT TOLERATE OIL TANKERS COMING DOWN OUR STREET. THAT IS A HORRIBLE

GarciaJ-4

IDEA AND WE WHO LIVE HERE ON PENN STREET FEEL ALL THE SAME DON'T USE OUR STREET FOR YOUR OIL TRUCKS IT IS NOT SAFE. PLEASE DO NOT USE PENN

STREET FOR YOUR ROUTE WE BEG YOU FOR OUR CHILDREN'S HEALTH AND IT IS A BIG DEAL ITS OUR CHILDREN. WE LOVE THEM JUST AS YOU LOVE YOURS. PUT

YOURSELF IN OUR SHOES, WOULD YOU ALLOW BIG OIL TANKERS COMING DOWN YOUR STREET WHERE YOUR CHILDREN WALK AND PLAY?? WOULDNT YOU FIGHT

FOR IT NOT TO HAPPEN TO YOU AND NOT STOP UNTIL IT DOES?

THANK YOU FOR YOUR TIME,
CONCERNED FAMILY ON PENN STREET

Jeff Adams

From: Robby Gardner [robbygardner@gmail.com]
Sent: Tuesday, July 19, 2011 9:03 PM
To: Jeff Adams
Subject: Comment on Whittier Hills Oil Project

GardnerR-1

I am hereby submitting my own personal comment to the City of Whittier regarding the Whittier Hills oil project.

As a resident of the City of Whittier, I was never informed of this significant plan to drill in the Whittier Hills nor was I given an opportunity to vote for or against this measure. Whittier City Council members have deliberately taken swift action on this matter without the consent of their constituents. For this reason, I do not support the City's actions going forward, whatsoever. Because of the way in which the City Council has moved forward in the matter of drilling for oil in the Whittier Hills, I have lost all faith in this City Council. It does not represent my beliefs nor does it allow me the personal rights I feel entitled to as a resident of Whittier.

Robby Gardner
12428 Rose Drive
Whittier, CA 90601

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Rebekah Gilbert

Address: 13817 Penn St

City, St., Zip: Whittier, CA 90602

Phone #: (562) 818-9508

Email: beckandjimmie@gmail.com

COMMENTS:

I am opposed to the oil drilling project.
My main concerns are ① the increased traffic on Penn Street - up to 200 extra trucks on Penn St per day during phase 2. ② the potential for hazardous emissions, oil spills, etc for Penn St residents. ③ Decrease in home values ④ Noise GilbertR-1

Penn St has not been sufficiently studied and I feel that this project will put my family and the other Penn St residents at risk in many ways. I am outraged and sickened by this project and the potential hazards that come along with it. GilbertR-2

RECEIVED
JUL 11 2011
Community Development

Jeff Adams

From: Emmie [llubthtihs3@aol.com]
Sent: Tuesday, July 19, 2011 8:09 PM
To: Jeff Adams
Subject: Whittier Main Oilfield Development

GotthardtE-1

Jeff Adams
I own and also reside at 13716 Penn Street #10 Whittier.
I have lived here over 30 years and I am definitely against this project in our City and also on my street. The street is already loud during the day time hours with the trash trucks going up and down the street. I can't imagine having these trucks going 24 hours. What are you thinking?
This Oilfield drilling would not benefit the residents living in our neighbor hood at all. It would be real nightmare on our streets. I AM AGAINST THIS PROJECT!!!!!
Mrs Emma Gotthardt
Sent from my iPad

Jeff Adams

From: Emmie [llubthtihs3@aol.com]
Sent: Tuesday, July 19, 2011 8:40 PM
To: Jeff Adams
Subject: Whittier Main Oilfield Development Project

Jeff Adams

GotthardtL-1

I am against any efforts to drill for oil in Whittier. I lived on Penn Street for 35 years?
The following reasons beyond my own are:
1. Parking is almost impossible with the garbage trucks going down the streets and time limits The oil trucks and construction vehicles would this situation only worst.
2. We have many college students using Penn St. Also people going to work on Penn street In the morning and evening so that they do not have use Colima St. Because of the heavy traffic. The oil trucks would be a nightmare on traffic.
3. Anyone voting on this Oil drilling such as Mr. Aknoabe should be excuse from voting because his son works for the oil company.
4. Property values would drop as soon as they hear about the oil drilling and the safety hazard.
As soon as people living on Penn Street and around the area specialty the college hear of this they will all say no drilling for oil in Whittier.
I AM AGAINST THE OIL DRILLING

Lawrence Gotthardt
13716 Penn Street #10
Whittier CA 90602
Sent from my iPad

Jeff Adams

From: Diana Gruber [choosethisday@linkline.com]
Sent: Thursday, July 21, 2011 10:24 AM
To: Jeff Adams
Subject: Oil Drilling

GruberD-1

Hi,
I have concerns about oil drilling in the Whittier Hills. At first I did not think it would be that much of a problem. I hike in Sycamore Canyon, and "life" seems to go on pretty well there with the oil drilling. However, I recently learned that the plan is not just for 3 or 4 oil drills, but rather each drill site could have numerous drills, up to 60! Of course, that number of drills, the time it would take to put them in, the travel in the hills to construct - all of this seems to be a no-brainer: this will ruin our hills, habitat, views, etc.
I would like to hear plainly - How many drills will be in place if Matrix does what they want to do?

Diana Gruber
choosethisday@linkline.com
As for me and my household, we will choose the Lord.

Jeff Adams

From: Sandi Gutierrez [chilegoddess41@hotmail.com]
Sent: Wednesday, July 20, 2011 12:54 PM
To: Jeff Adams
Subject: Proposed project

GutierrezS-1

My name is Sandi Gutierrez. I have been a resident of Whittier for six years and recentlly moved two years ago to Penn Street. I work from home and am deeply concerned about what the City of Whittier and Matrix oil are planning to do to us!!!

As a resident of the area involved my concerns are many inclusive of the traffic, noise, lack of availability of parking, etc. (we already have enough traffic with the trucks that run through here to the landfill and back that are bad enough) I am most concerned with the health issues that will arise with the transporting of chemicals that myself and the neighboring families will incur. Have you forgotten Hinkley, California? Lest we forget, in 1993 a number of families were compensated after a huge settlement due to the fact that a facility Hinkley Compressor station part of a NAUTURAL GAS PIPELINE and PG & E (Pacific Gas and Electric) had used hexavalent chromium to fight corrosion of the cooling tower. As a result this chemical leaked into the ground water affecting the residents tap water resulting in the diagnosis of many of the residents developing malignant tumors and leukemia resulting in many deaths!!! Now the use of hexavalent chromium may have been discontinued but there is still a real danger of this happening again due to the use of other chemicals!!!

My question to you City of Whittier and Matrix Oil... Are you prepared to pay out millions of dollars to the families that will suffer due to your negligence!!!! Do not underestimate your residents! I understand Ms. Brockovich is still available for consultations.

Concerned resident of Penn Street

City of Whittier
Planning Division
Attn: Jeff Adams
Planning Services Manager
13230 Penn Street
Whittier CA 90602

This letter is in response to the Draft Environmental Impact Report (DIER) for the implementation of the Whittier Main Oilfield Development Project.

This project should be should be unacceptable by the members of the Whittier City Council. The DIER clearly identifies **six significant and unavoidable** impacts. I address one of those areas:

HamudO-1 **Air Quality**-Construction activities will exceed South Coast Air Quality Management District thresholds and state greenhouse gas emission levels and Operational and drilling activities at the Project Site would also create odor events and emit toxic materials-There are schools and residents surrounding this project, how do you explain away the physical hazards that will most likely occur from this exposure-if not immediate possibly long term illnesses. The toxic omissions from natural gas extraction are dangerous, the

HamudO-2 following Air Monitoring Plan described in Section 8.0 Summary of Mitigation Measures and Mitigation Monitoring Plan is merely alarm system with local fire department having to deal with aftermath. Response teams are usually in the hazmat gear-how does that compare to students, staff and resident normal clothing, not much protection against toxic exposure. Per the DIER, the closest county hazardous materials team is at Fire Station #105 (Battalion 7) in Compton, approximately 20 miles southwest. Table 4.12-1 summarizes the resources and response times for the closest LACoFD fire stations. Figure 4.12-1 shows the locations of these stations. Depending on the time of day of emergency this will take a minimum 27 minutes to arrive on site and that is in perfectly clear conditions (I commuted to and from Compton for many years and it was only on Saturdays or late evenings that I was able to make that trip in 27 minutes).

AQ-3d The Operator shall develop an Air Monitoring Plan. The Plan shall provide for the monitoring of total hydrocarbon vapors and hydrogen sulfide at each well drill and re-drilling site and total hydrocarbon vapors at the gas plant. At all times during drilling and redrilling operations, the Operator shall maintain monitoring equipment that shall monitor and digitally record the levels of hydrogen sulfide and total hydrocarbon vapors. Monitors shall be installed at the edge of the drill pad and around the outer edge of the gas plant. Such monitors shall provide automatic alarms that are audible or visible to the Operator of the drilling equipment for the drill rig monitors, and gas plant for the gas plant monitors, and shall be triggered by the detection of hydrogen sulfide or total hydrocarbon vapors. Alarm points shall be set at a maximum of 5 and 10 ppm H_2S and 500 and 1,000 ppm hydrocarbons, with the higher level requiring shut-down of drilling or gas plant operations and notification to appropriate agencies, including the Los Angeles County Fire Department and SCAQMD. A meteorological station to monitor wind speed and direction under the guidance and specification of the SCAQMD shall be installed at the Processing Site, or applicable location

HamudO-2

There is no consideration of how to protect surrounding schools (students & staff) and residents. These individuals are now exposed to toxic gas-Is this how City Council plans to protect their community?

The City Council should consider the recent agreement reached by the Los Angeles County Board of Supervisors in July 2011 involving four lawsuits filed in November 2008 on behalf of residents of Baldwin Hills in regards to oil drilling and production activities in Baldwin Hills.

The key elements of the settlement included:

Reduced drilling of new wells
Increased air quality monitoring-
More stringent noise limits
Mandatory, recurring health and environmental justice assessments –

HamudO-3

Unfortunately a conducted health risk assessment found increase cancer and acute non-cancer risks. What are the mitigation measures for this impact in the Whittier oil project? I do not see this type of assessment in this DIER nor do I see an air quality monitoring designed to assess the risk of both acute and chronic exposure to air contaminants from Oil Field.

Less Than Significant Impact –

HamudO-4

Environmental Justice
It is amazing how the small street identified as the "North Access Road" aka Penn Street became the number one route for oil tankers and other project related vehicles—it is the furthest street from the project site and the DEIR concedes that "a disproportionate impact on minority and low-income populations due to the Project, particularly regarding

traffic on Penn Street". Amazing how City Council heard the voices of Catalina and Colima residents but for some reason are deaf to the concerns of Penn residents.

HamudO-5

Access to the Project would be both from Catalina Avenue and along the North Access roadway from Penn Street through the landfill property and through the Preserve to the Project Site. For vehicles two tons and under, the Project Site would be accessed through Catalina Avenue. For vehicles larger than two tons, the Penn Street entrance and the landfill road would be used to access the site through the North Access Road. Penn is a tiny street and those trucks are too big for this street. We will suffer from noise, vibrations, diesel fumes and trucks barreling down the center of the street with no regards to the safety of local residents. No matter what your traffic analysis may reflect—it makes no sense to have those big trucks traveling on Penn St a highly populated/dense area. Just because we currently have the trash trucks use this route does justify the use of tiny Penn St as a route capable of handling oil tankers. I am tired of my house rattling and excessive dust and dirt as the result of trash trucks going up and down Penn St throughout the day.

Two methods for transporting the marketable crude oil are proposed by Matrix. One method would be via the Truck Loading Facility located inside the Project Site area, where the oil would be loaded onto oil tanker trucks and transported through the North Access Road to a nearby receiving terminal – what route are these oil tanker trucks going to use to get to receiving terminal? There was no traffic analysis for those routes! Once the permanent oil pipeline is constructed the Penn Street access road will continue to be used during rare periods in the event the pipeline system is shut down—how often will that occur?

HamudO-6

The **Socioeconomic Analysis for Whittier Main Oil Development Project Prepared for Marine Research Specialists Ventura, CA noted the following in regards to impact on real estate value for homes located in close proximity to oil project:**

"However, nuisances such as noise, visual or health concerns do affect potential buyers' decisions making and are thus important considerations when determining the overall marketability of a home. It is important to note that no analytic research was conducted by the interviewees"

"Based on our research, AECOM believes that it is likely that some properties most affected by the various impacts, as defined in the Draft Environmental Impact Report (Draft EIR), will have some level of home depreciation and depending on market conditions a more difficult time reselling their property."

The best alternative for this project is "No Project Alternative".

I thank you for allowing me to submit my comment in writing. The City of Whittier did not allow me the opportunity to submit oral comments at the DIER Public Comment Session held on 07/11/11 at Parnell Park Community Center between the hours of 6 pm – 9 pm. The court recorders were dismissed at approximately 8 pm, I appreciate the follow-up call by city employee

however, and I find it unacceptable the reason court recorders were dismissed “Was about ½ hour with no body being there utilizing court reporter, so we let them go home”. These are grow-ups and they understand their responsibilities and job expectations, even when there is no immediate business.

I hope the City council demonstrates more patience and willingness to listen and review the concerns of all individuals regarding this project—there may be a valid point among all this feedback—Please remain open to our concerns. Thank you again; I appreciate the amount of work and effort that goes into leading our city.

Olivia Hamud
13622 E Penn St
Whittier CA

Jeff Adams

From: tamara [tshardy@earthlink.net]
Sent: Thursday, July 21, 2011 3:50 PM
To: Jeff Adams
Subject: oil drilling on the nature preserve in the whittier hills

HardyT-1

I have lived in Whittier since I started Whittier College in 1982, and have been rambling the hills since then. I have been so delighted with the steady progress we have made to protect our hills. I was so pleased when the preserve and regular paths were created (and maintained), and when the ugly pumps were removed. I walk on some part of the corridor near every day, and observe that this recreation area is being used by many residents of Whittier of all ages! I am at loss as to how anyone can believe that building roads and sinking oil wells into the ground in a nature preserve is acceptable, and that it will not have a lasting effect. I attended the information session earlier this month, and have no questions. The preserve is part of what makes Whittier such a wonderful oasis in the middle of a sprawling urban setting, please keep it as it was created for the animals and the people who live here.
Thank you

Tamara Hardy
13514 Via Del Palma
Whittier CA 90602

Tamara
Mahout Cert.

Jeff Adams

From: alexandra heinemann [aheinemann13@gmail.com]
Sent: Tuesday, July 19, 2011 8:05 PM
To: Jeff Adams
Subject: DEIR

HeinemannA-1

Hello,
My name is Alexandra Heinemann and I have lived in the wonderful City of Whittier for over 25 years (and my family, which I am also speaking for), specifically off of Mar Vista at Ocean View. I am inclined to speak out against the project that is being proposed for drilling in the Whittier Hills. After reading the impact report, and also from my own research and hearing what both sides of the debate had to say, I urge you to cease the continuance of this project. It is a bad idea, in the WRONG DIRECTION. Please listen to us, myself and my neighbors regarding this issue. The community has united against this and it seems to still be forced upon us, it is tyranny if it doesn't stop here. Thank you.
Alexandra Heinemann

Jeff Adams

From: Mary Helfrey [phelfrey1@earthlink.net]
Sent: Wednesday, July 20, 2011 12:04 PM
To: Jeff Adams
Subject: EIR Comment

Mr. Adams: HeltreyM-1

This is in regard to the Transportation section of the EIR report, specifically 'Mitigation Measures', Page 4.7-23, T-1d, (2) which reads:
"Prohibit parking on the east side of Catalina Avenue north of Mar Vista Street to provide additional capacity for trucks during Phase 1, according to city engineer recommendations"

I would hope to 'amend' that recommendation since....
(1)The residents of Catalina will already be significantly impacted by the traffic, noise, odors,emissions, dirt, dust, etc., etc., etc. in Phase 1...
(2) and the, Mitigation Measures N-1a states: "Limit all construction activity at the Project Site, including deliveries and arriving and departing workers to the hours from 7:00 a.m. to 6:00 p.m., Monday through Friday, and from 8:00 a.m. to 5:00 p.m. on Saturdays and prohibit activities on Sundays and federal holidays".

My 'amendment' is that the hours after "construction activity" during the week and Sundays and federal holidays be exempted from the parking prohibition to allow residents to have gatherings of their guests and relatives without parking problems.

To my mind this seems eminently fair and would allow at least that part of life to go forward as usual.

Thank you for your consideration. Mary Helfrey

8143 Catalina Avenue
Whittier, CA, 90602-2740
696-1608

Jeff Adams

From: Yellow Pie [yellowpieantiques@hotmail.com]
Sent: Thursday, July 21, 2011 12:59 PM
To: Jeff Adams
Subject: DEIR comments

Attn: Jeff Adams

With a deep rooted history of four generations spanning more than 70 years residing, attending schools, owning homes and businesses in the city of Whittier, we are up in arms concerning the proposed drilling of our hills.

We have been supporters of the "saving our hills" since the beginning. The beauty and rarity of un-developed land in the Los Angeles area is one of the reasons we remain here.

Kudos to Mr. Robert Henderson for leading the city staff and council into thinking he was behind th protection of our hills. WAKE UP!!! There seems to be a fox in the hen-house.

We trusted our city council and city staff in the early 1990's to present a logical way to preserve our hills. Since Mr. Henderson has been the leader of this preservation scheme and now will not be able to fund the upkeep of the hills due to the imminent closure of the Puente Hills landfill, we believe he is attempting to devise a plot to sell out our protected land to make him personally look like a hero at our (citizens of Whittier) expense. HoltLM-1

We are against the re-opening of our hills for oil drilling. Our hills should be saved for future generations in Whittier and surrounding areas. We should be not be going backwards, we should be thinking green for the future.

Drilling for oil is a very dangerous and toxic business. We both were in the oil business in the 1970's and 80's working with Alaska pipelines, Saudi Arabia oil fields and Off-shore drilling in the Bay of Trinidad. We can first hand tell you of the dangers associated with oil drilling and pipelines.

You are proposing having oil tanker trucks traveling Penn St. This is absolutely not acceptable. Residents and property owners have purchased their homes as an investment in their future. It looks as if you are planning to destroy the future of Whittier's families just for the almighty dollar.

We have invested more than 30 years in our home and will not allow a few greedy, naive people destroy our dreams.

HoltLM-2

If the State of California and county of Los Angeles somehow are coerced into allowing this drilling to happen, our city should not even consider Penn Street to be used by oil tankers. Penn Street is a very heavily populated residential street. There are many children, Whittier College students and families that would be negatively impacted, not to mention residents visiting Penn Park and Whittier College sports complex.

The DEIR is flawed in many ways, the traffic, air and noise pollution have not been addressed in a thorough study. A couple of hours of observation is not nearly enough to have a complete study. HoltLM-3

The immensity of health impacts should be a concern to citizens and wildlife not only in the city of Whittier but for miles surrounding the site. HoltLM-4

Our quality of life, protection of our hills, & home investment should be our city councils primary obligations. This is a disaster waiting to happen. Please re-think this ill-conceived, flawed, and hazardous proposal.

Larry and Mary
Holt
13840 E. Penn Street
Whittier

CC: Whittier Daily News

Jeff Adams

From: MandSHurtado@aol.com
Sent: Tuesday, July 19, 2011 9:06 PM
To: Jeff Adams
Subject: Oil Project

HurtadoGS-1

My family and I are all against the oil project proceeding in Whittier; this includes extended family, we are five home owner households with a total of 17 adult registered voters.
How can we not care about what this will leave for our children and grandchildren? I get sick to my stomach; thinking of what little land there is around here that still reassembles what Whittier originally looked like, and the all mighty buck will destroy it.
Why not let the city as a whole vote? This affects all of us.
Sincerely,
GS Hurtado
Whittier, CA 90602

Resident Objections to the EIR Report on the proposed Oil Drilling Facility in Whittier Hills, (including the associated risks of increased traffic volume, air pollution and noise levels on Penn Street, Whittier)

July 18, 2011

Prepared by:

Roanld F. Johnson, 13883 Penn Street, Whittier, CA 90602

(*Penn Street Resident for over 10 years*)

Introduction

This document has been prepared to give the perspective of actual residents in Whittier and not consultants nor City Council members who live far away from the disruption to the wildlife habitat. The residents are the ones who will have to bear the brunt of increased noise, reduction in air quality and potential danger because of the burden the city wants to place on just a few residents. They will also face irreversible home deprecation because of the decision of the City Council in choosing their most convenient trucking routes.

We are not against drilling for oil in any way, shape or form – but we do insist that what the County of Los Angeles and the City of Whittier (including Matrix) will implement, will not adversely impact the lives of the Citizens of Whittier or our existing nature preserve.

We ask you, as our City Council, to read and respond to each and every one of our concerns in writing. We would like all the County of Los Angeles and the City of Whittier Council members to pay close attention to Section 608 of the City of Whittier Charter (Illegal Contracts). Financial Interest should be addressed by each member of Whittier Council in the form of signing a personal declaration that they are complying with this important section in the Charter of the City of Whittier.

The City of Whittier Mission Statement on their website, "the Community Development Department is committed to delivering personalized service, while encouraging a safe, well-designed physical environment and seeking to facilitate balanced growth, preservation and revitalization" (www.cityofwhittier.org/depts/cd/mission.asp). If the City truly operates to this mission by approving the Oil Drilling project they are in violation of their operational commitment to the community. Increasing traffic on Mar Vista, Catalina, Penn and Painter (plus other alternatives routes to be used at will and not yet disclosed in the EIR) does not foster a 'safe, well-designed physical environment'. The mission statement also commits the City to 'Balanced growth, preservation and revitalization'. How is increasing road traffic, increasing noise levels, reducing air quality and destroying a wildlife habitat accomplishing that??

Both the Native Habitat Preservation Authority (July 14, 2011) and results of the lawsuit filed against the Baldwin Hills Drilling (July 6, 2011) recognize a "failure by the County of Los Angeles to conduct an adequate EIR report". And yet, we have the very same organization submitting inadequate, nebulous EIR report versions to the residents of the City of Whittier. This has to change if we are to reach agreement on any of the proposed drilling project terms – stop delivering minimal information, we need full disclosure!

We respectfully request that the Council look at new and innovated ideas to bring financial funding to the City instead of resurrecting old outdated ideas.

While the Draft EIR document has many areas of concern, our focus was on those areas that have a direct impact to our residential neighborhoods. While you will not find comments submitted on every section, those not commented on are no less important. We concentrated on air quality, noise, traffic, safety and disruption of wildlife to our urban neighborhoods.

JohnsonR-1

1. The Daily Traffic survey on Penn Street/Painter/Hadley in the current DEIR is insufficient. Therefore a simulation (trial period) with empty trucks each day (20 oil tankers making 4 rounds trips each day as demonstrated by Mr. Perez at the Community Center) should be carried out for a minimum of 3 weeks on a daily basis. Only then can the true environmental impact of heavy traffic on air quality, noise and safety each day on Penn Street be evaluated.

JohnsonR-2

2. Before the aforementioned 'dry run trial period', the Environmental consultant must first measure air quality through placing a device(s) which will give readings on lampposts on Penn and actually in Penn Park pertinent to air and noise quality readings every 15 minutes over 24 hours in each day over 3-4 weeks. These readings must be posted publicly as a matter of record. Doing this will create true baseline from which the County of Los Angeles and the City of Whittier and Matrix can work from.

JohnsonR-3

3. Full tankers with up to 6,000 gallons will have an impact on the upkeep of Penn Street plus they will have to travel at 20mph or less down Penn when full to avoid running the traffic lights because of the following weight going down the grade.

JohnsonR-4

4. What EXACTLY will be in these tankers? Full disclosure is required. Why, because any HazMat team will need to know what they are dealing with and how to combat a spillage/collision or explosion. The Residents of Whittier need to be informed of exactly what is being carried in these oil tankers along their streets.

5. We need guarantees that the oil tankers will not be stopping and 'stacking up' outside the current landfill site on Penn Street waiting for access to the proposed oil plant. There is park adjacent to the proposed access and frequently the City just takes up the

JohnsonR-5 public parking with their vehicles which then causes inconveniences to the many people who want to enjoy this public recreational park. The initial proposal was very conscious of the feelings of the people who use the wildlife trail – so we urge the City of Whittier Council to treat the hundreds of people who visit Penn Park during the week with the same courtesy in a more relevant EIR that needs to be created.

JohnsonR-6 6. What is the schedule for these trucks – again, the residents need full disclosure. Hours of operation, true volume of oil trucks on Penn/Painter/Hadley etc.

JohnsonR-7 7. Does Baldwin Hills (another County of Los Angeles drilling site) have a fully trained hazmat response team within 10 minutes location of the drilling plant? Please evaluate what other oil drilling cities do regarding hazmat response team and the use of chemicals that must be used with oil operations, testing oil equipment, and chemical needed to combat emergency situations at the oil operations.

JohnsonR-8 8. Schools – there will need to be training or even employment of a hazmat director at each school (including Whittier College) to work with the authorities when a spillage/explosion occurs and co-ordinate evacuation, student accountability, carry out monthly drills, etc.

JohnsonR-9 9. The Fire Department in Whittier is totally unprepared for any accident at this point in time due to the proposed oil drilling operation. There has to be intensive training and the purchase of necessary equipment to enable them to be effective and not rely on a station 20 miles away that will take anywhere from 1.5 hrs to 2 hrs to arrive. Fires need to be addressed within 15-20 minutes of outbreak. If there is a spillage (under USDOT regulations), effective first response to an incident involving hazardous materials

(hazmat) is critical to minimizing the impacts of the incident in terms of public and responder safety, environmental degradation, and costs for clean up.

10. Well-defined hazmat response policies and procedures and responder training allow first responders to accurately identify the hazardous material and direct further response. For certain spills, equipment carried in the first response vehicles (from Compton, 1.5hrs away) can be used to contain the spills until the fire department or hazmat contractor can arrive at the scene. If the Fire Department proposes to use 3M Lightwater ATC FC600 foam concentrate this too has serious environmental issues. It has been established that PFOS (foam concentrate) has a very unfavorable persistence-bioaccumulation-toxicity (PBT) profile and any discharge to groundwater would result in long-term environmental consequences. No-one knows what its half-life is. The lithium salt in PFOS is a registered US EPA insecticide which kills bees and wasps. The long-term effects on humans are not known. But disturbances to liver and hormone metabolism and birth defects in rat embryos as well as potential carcinoma of the prostate in human have been highlighted.

JohnsonR-10

The chemical feedstock used in the manufacture of 3M PFOS-type fluorosurfactants is perfluorooctanyl sulphonyl fluoride (C8F17SO2F). In the environment the fluorosurfactants degrade to give perfluoro-octanyl sulphonate (PFOS).

11. Is the City going to install unique highly audible alarms (and not just a siren) to alert the population that there is an actual chemical explosion within the immediate area? Will they program the telephone numbers of every resident within a 5 mile radius of the oil

JohnsonR-11

plant to automatically send out an alert to leave the area? (This could also be done by text messaging.)

JohnsonR-12 12. How are the police going to evacuate over 10,000 people (at least) within this 5 mile radius of the plant effectively? Again what drills will be set up to train the police and residents to do this properly?

JohnsonR-13 13. Within the site, will there be air quality monitors running 24 hours that will feed back information about possible emission violations under the EPA statutes? Will a record of this be published on the City website and delivered to the local EPA office for monitoring?

JohnsonR-14 14. Drilling in the wildlife preserve will drive wildlife close to urbanization. So residents will deal with more coyotes and more deer – what is the City's proposal to deal with this 'influx of new residents' with the safety of the residents considered as well?

JohnsonR-15 15. Empty trucks coming south on Painter will need to turn left onto Penn. For a single truck this is extremely difficult – but a truck with two tanks would be virtually impossible. Therefore, the first thing the city needs to do is install a left filter green light to at least give a large truck time to turn left and not endanger any oncoming residents of Whittier in a potential car accident.

JohnsonR-16 16. Will the park be installed with safety gates to prevent children running out into the car parking area (as they do often)? At this point in time all access to the park is through numerous openings in the surrounding hedges. These openings need to be closed gates that can be opened either side by adults for access for themselves and their young

children. The City should take responsibility for the safety of all individuals (adults and children) accessing recreational Penn Park during the day.

17. Many, many more people visit Penn Park during the week than visit the Habitat Preserve – yet we see nothing in the current DEIR about the preservations of its existing noise levels and air quality. Does the City of Whittier Council not care about preserving current air and noise levels for its residents to relax in safety in an already over burdened Penn Street neighborhood?

JohnsonR-17

18. Trucks must travel at a speed lower than the 30mph both up and down Penn Street (because of their size and weight) to reduce potential accidents. Currently there is not room enough for two garbage trucks to pass each other at the same speed on Penn Street. I have seen many times one garbage truck pull over to the side to let the other garbage truck pass. Garbage trucks do not carry flammable liquid or toxic liquid, so if they do not pass each other why would we allow oil/chemical tankers to pass each other at speeds in excess of 15mph?

JohnsonR-18

19. The current garbage trucks that currently traverse Penn Street on a 6-day basis will not be stopping when the oil trucks come. So how does the County of Los Angeles and the City of Whittier justify putting the whole burden of unbearable traffic, noise and reduction of air quality on the residents of one tiny Penn Street in Whittier?

JohnsonR-19

20. All trucks MUST give way to residents to reduce the possibility of accidents along Penn Street regardless of the time of day.

JohnsonR-20

21. The City Council is prepared to change established and enforced Whittier City Bylaws to push this Oil Drilling proposition through. Therefore, do the City of Whittier Council

JohnsonR-21

members who voted and are on record, accept full personal responsibility and liability for any lawsuits that may arise from ignoring these reasonable requests by the residents in the event of any traffic accidents or an explosion at the proposed oil drilling plant?

JohnsonR-22

22. Environmental Justice Section of the DEIR (p4.14/2). The Census information in the document is based on the 2000 Census – 11 years ago. Does the City truly believe nothing changes in 11 years?? The USA as a country changed in 2001 never to be the same for anyone. Has Whittier not grown in population in 11 years, I find that very hard to believe. If the DEIR is to be accurate, it needs to be re-written with better analysis using the latest (2010) census information that is available.

JohnsonR-23

23. Environmental Justice Section of the DEIR (p4.16/5). Yet another anomaly in the EIR is the Poverty Status – once again, the creators of the DEIR used 1999 information – 11 years old! WE all know that the economy took a downward tail spin in 2008 and has still not recovered. Using the 1999 Poverty Status is unacceptable and this needs to be re-analyzed using 2010 census available data.

24. Transportation (p4.7/1). The baseline analysis on 2010 traffic counts is unacceptable. It states very low traffic for Whittier College when in fact in early 2011 Whittier College opened its new Sport Complex plus rents it out to other athletic clubs and schools. When there is a sports function at Whittier College (and there have been many in the week and weekend over the past 180 days) Penn Street is full of cars coming and going and may people crossing and walking down the middle of the street. Therefore, a new traffic baseline needs to be created for York thru Penn Street to Painter including College to Penn – and not just one day as the present EIR, but over a period of 45 days.

JohnsonR-24 This new baseline analysis needs to be 24 hours and day and when Whittier College is in full operation – there are electronic devices that can be rented by the city to be placed at various locations to monitor traffic flow around the clock. The current analysis only looked at traffic during early morning and coming home traffic entering and exiting Penn and Painter intersection. This analysis is flawed as it has missed gaps of traffic during the day of the garbage trucks and Penn Park activity. Many people use Penn Street and College Avenue to drive through the area that was not picked up in the flawed traffic analysis plan. Many people also use York to pass Penn Park to enter Whittier College this traffic is not calculated either with the flawed analysis plan of the DEIR. All traffic analysis results should be published on the City of Whittier website under a new page that needs to be added for daily recording of Penn Street traffic along the entire length from York to Summit, Penn to landfill access, Penn to Canyon Crest, Penn to College and finally Penn to Painter. The analysis should be 24 hours a day, 7 days a week, for 30 to 45 days. This should accurately record the average traffic using the already impacted Penn Street/York and all street intersections through to Painter Blvd.

25. JohnsonR-25 The DEIR states that Whittier College only play 4 games a year – this is a ridiculous statement unless the creators only paid attention to football. There are track, football, basketball and volleyball played year round. But then if only one day was spent evaluating this – how would the DEIR developers know? All these collective sports events bring a dramatic traffic increase to Penn Street plus create a parking nightmare. Whittier College now has traffic marshals that stand at the intersection of Canyon Crest

and Penn Street during a sporting event who directs traffic and dictates street parking – shouldn't the City be involved in that?? Many local schools transport in athletic teams and park in red zone areas, is this safe? Is this something that the City sanctioned?

JohnsonR-26

26. The new traffic baseline (p4.7/2 – p4.7/4) must use the same traffic intersection as stated on page p4.7/2 as identified in its 13 points in the EIR document. Plus street segments identified in the p4.7/3 and p4.7/4 including York and Summit and landfill access.

JohnsonR-27

27. With regard to pedestrians who cross both Penn Street and Painter Boulevard during the day, what are the hours of operation that oil trucks will be traversing Penn Street (still not disclosed by the City/Matrix/DEIR document). There are a substantial amount of foreign students who attend Whittier College and Kaplan English Language schools. With the increased danger of multiple trucks entering and departing from Penn Street, the four signals needs to improved with audible warning, the 'countdown digital display' and any other measure that can ensure the safety of these pedestrian students. The City relies on these students for revenue therefore it should pay attention to their safety with sincere interest. Remember…cars can stop much faster than trucks!

JohnsonR-28

28. Penn Park has visitors who are mentally and physically disabled to the park each day – sometimes as many as 10 plus 1 or 2 caregivers. I have personally seen many times that these individuals (through no fault of their own) start to wander into the middle of the road and have to be brought back into the park. This is a recreational park created by the forefathers of Whittier City Council for ALL residents – the safety of these individuals carries the same importance as any other resident of Whittier and yet the DEIR bears no

mention of their enjoyment of the park. The DEIR does not mention anything about the hundreds of visitors to Penn Park throughout the week. This is of paramount importance for quality of life for a lot of residents – but then again, the DEIR developers probably only spent a day on that too.

JohnsonR-29

29. All the EIR and relevant documentation regarding this proposed increase of traffic, reduction of air quality and increased noise plus accompanying safety issues is only in English. I would ask the City to explain why when they state in the EIR (p4.16/5) that 55.9% of the City of Whittier residents are Hispanic, that the ALL documentation is not bi-lingual?? In fact there are other minorities too in Whittier – does the City not care about their concerns or worries and choose not to inform them??

JohnsonR-30

30. An EXACT truck route needs to be determined and fixed by the City of Whittier and Matrix before any EIR can be determined. Why?? Because each route brings it own unique requirements and for the developers of the EIR to say at the meeting at the end of June, 2011, that 'the Penn/Painter/Hadley/Whittier Blvd/605 is the preferred route but the others can be used' is a ridiculous statement to make. CEQA (California Environmental Quality Act 1907 clearly states that "CEQA establishes both a procedural obligation to analyze and make public adverse physical environmental effects, and a substantive obligation to mitigate significant impacts". How can the City of Whittier comply with these clearly stated rules when they will not commit to disclosing which routes the trucks will use on Penn Street, what is the proposed schedule of trucks and if 80 visits per working day (or even 7 days a week) is public knowledge. At the June meeting with the developers of the DEIR posted a slide showing there would be 20

trucks per day (which does not seem a lot considering we have many more landfill trucks traversing Penn Street today). But, in the DEIR (p4.7/18) it discloses that those 20 trucks will make a total of 4 trips daily in and out of the proposed site – meaning there will be 80 trips up and down Penn Street each and every day for at least 25 years. How can that not harm the environment in air quality, safety and noise?? The DEIR information is ambiguous and misleading in a representation to play down the disruption the City will cause to the residents of Penn Street and others.

JohnsonR-31

31. Intersection Analysis (p4-7/20). A new Analysis of Traffic with regard to this section needs to be carried out over a 45-day period. The 2010 report on traffic needs to be references as the much stated 'baseline' from which to carry out the 'reality of daily traffic. All new analysis must be posted on the City website for the residents to be able to view and comment on.

JohnsonR-32

32. In the DEIR it states that a Plant Carpool will be created away from the actual plan to facilitate less cars coming up and down Penn Street and Catalina. Where will this carpool be located – at the bottom of Penn or outside of the City limits? What environmental impacts will the Plant Carpool place upon the chosen area, of which we are not knowledgeable of since it has not been disclosed.

JohnsonR-33

33. The cost of the construction of this plant will be enormous and I wonder if it coincides with the recent notification of an increase of 30% in utilities. We need full disclosure of who is paying for the water used at the new plant, the removal of earth etc. by the City. It is ridiculous to expect the residents of the City of Whittier to pay for this work when only the County of Los Angeles and the City of Whittier benefit financially from this

project. A review of utilities needs to be conducted as to why the residents are paying 30% more for water when we do not have a water shortage.

JohnsonR-34

34. The impact that 80 truck trips each and every day will have on the homes (many are over 50 years old) in terms of structural failure of buildings, damage to sewer and water pipes that go down Penn Street. Therefore, does the City or Matrix intend (over the unlimited timeline for the Lease) to pay for all claims that arise from such damage or are the residents supposed to carry that burden themselves. The residents do not want that many trucks each and every day traversing Penn Street – so why should we pay for the damage that will inevitably occur?

JohnsonR-35

35. Are all the major hospitals in the immediate vicinity capable of handling hundreds of people with various injuries should there be a toxic spill from one of these trucks or an explosion at the plant or even air pollution? This needs to be top of the list for the City to be included in the DEIR.

JohnsonR-36

36. If this project is passed, the volume of daily trucks, air pollution and noise levels will adversely affect the value the quality of residential life and wildlife. But also, the traffic, air quality, etc., will devalue the property values of our current homes (already decreased by the recession). I would like to ask if the City of Whittier/Matrix are going to be prepared to pay the difference between the best offer for any home on Penn Street and the current real estate comps? Penn Street residents should not lose financially out of this unwelcome project and the County of Los Angeles, the City of Whittier and Matrix Oil gain from it.

JohnsonR-37

37. Is the operation of the plant going to be 24 hours (again nothing in the DEIR). If so, that means the trucks will, during any 24 hour period traversing Penn/Painter/Hadley/ Whittier Blvd., and who knows where else. We demand specifics and not have them 'hidden' in case it raises objections that will impact the immediate acceptance of the drilling project.

JohnsonR-38

38. At the June meeting with the DEIR developers, Mr. Perez stated that the proposed volume of trucks would not exceed what we already have on Penn Street for the landfill. However, he failed to realize that these garbage trucks will NOT be going away – so now the traffic would be doubled at least. But then he 'forgot' to mention those 20 trucks each make 4 trips each and every day up Penn Street resulting in a total of 80 trucks (albeit the same 20). This is a very clever manipulation of statistical information but again, as residents, we demand truth and clarity.

JohnsonR-39

39. We need clear identification of EXACTLY will be contained in these trucks in and out of the drilling plant. We require an MSDS (Material Safety Data Sheet) as clearly defined by OSHA for us to determine if they are hazardous to the residents in any way, shape or form. Please supply those in response to this document.

Jeff Adams

From: Gary Jones [Gary.Jones@DunnEdwards.com]
Sent: Tuesday, July 19, 2011 9:32 AM
To: Jeff Adams
Subject: MATRIX - DEIR question

My question is in regard to Property Values JonesG-1

Assuming the oil drilling project proceeds, either in the nature preserve or the Savage Canyon Landfill (6.0 Comparison of Proposed Project and alternatives Savage Canyon Landfill Site Alternative) the revised DEIR indicates that those of us whose homes are in close proximity to the oil drilling operation can expect an immediate drop in property values of 10%.

"In general, those brokers we interviewed believed that home values most affected by the oil operations (in close proximity) were depressed by approximately 10 percent. A couple individuals also suggested that these same homes typically took twice as long to sell."
(Socioeconomic Analysis p. 45)

If real estate experts 'believe' oil operations in close proximity to my home will depress the value of my home, and 'believe' it will take twice as long to sell my home, that becomes a self-fulfilling prophecy; it effects my broker/agent's expert advice regarding establishing an asking price when I put my home on the market and it effects buyers' brokers/agents when they advise their clients regarding the value of my property. Not to mention the lender's appraisal which will determine the 'worth' of my property compared to 'comparables' with 4 bedrooms 3 baths and a pool but <u>without</u> an oil field in the backyard. This is not an abstract concept – this is a dollars and cents issue.

Question: When I attempt to sell my home, what is my recourse against Matrix, or the City, for this <u>documented financial loss</u> which the City Council approves of as acceptable (again, assuming the City Council allows the drilling)?

Thank you

Gary D. Jones
Property owner
7223 Canyon Crest Road
Whittier CA 90602

Gary D. Jones / Vice President, Human Resources and Training

Dunn-Edwards Corporation
4885 E. 52nd Place / Los Angeles, CA / 90058-5507
323.826.2746 / 323.773.7167 fax
gary.jones@dunnedwards.com / http://www.dunnedwards.com

This email and any attachments contain confidential and privileged information belonging to the sender. If you are not the intended recipient, you may not disclose, copy, distribute, or use any such information. If this email has been sent to you in error, please reply to inform the sender of the error and then delete this email and any attachments.

13834 Penn Street
Whittier, CA 90602
July 18, 2011

Mr. Jeff Adams
Planning Services Manager
Whittier City Hall
13230 Penn Street
Whittier, CA 90602

Dear Mr. Adams,

I am deeply concerned about the Penn Street access for the oil trucks. The city's study of traffic and parking was done reportedly on one day only in May, 2010, during hours that do not represent the parking and traffic problems that Penn Street endures.

My family and I are the only original home owners on the street by Penn Park. I have seen the horrendous changes that Penn Street has had to face. First of all, many more tables and benches have been added at the park with no consideration of how many more people and cars can be accommodated. The city no longer allows parking on the south side of Penn Street seven days a week from eight in the morning until five in the evening. Therefore, park people use the north parking spots in front of our houses when the park spaces fill up. JonesK-1

Next, Whittier College has allowed students access on Penn Street to the athletic building. Students have filled up parking spaces as early as seven o'clock in the morning on the north side of the street and immediately at five o'clock on the south side of the street.

And, of course, we have the trash trucks from early morning causing even the pictures on the walls to rumble occasionally.

All of these are safety issues, hazard issues, and parking issues and now the city wants to add oil tanker trucks to the mix. Where are the residents and guests of residents supposed to park their cars?

RECEIVED
JUL 19 2011
Community Development

A year ago Easter, I had guests coming for dinner. Two guests were over 80 years old and had trouble walking, one was a new mother with a baby that had to be carried. Every parking space except one was occupied on both the south and north side of the street at two o'clock in the afternoon. That happened to be in front of my house. We felt lucky. My guests parked there. So, on Easter Sunday, they received a $35 parking ticket. I complained to the police department, city hall, and, of course, got nowhere with my complaint. I was told parking is a problem when you live close to a park.

Now, oil tankers using Penn Street is considered the best option for access to the oil fields.. How can that be true? Less complaints from residents? Less money earned by residents in our particular area compared to the more affluent areas once considered? Should that be the deciding factor? Or should safety, parking, families, and added new traffic to residential Penn Street be considered. Fighting city hall is not very pretty. All we can do (when we can't vote on this issue) is to vote very carefully on our council members next time although in this case, it will be too late.

Penn Street Resident,

Katherine R. Jones

John Joyce
11539 Ridgegate Dr.
Whittier, CA 90601

July 21, 2011

Jeff Adams
City of Whittier, Community Development
13230 Penn Street Whittier, CA 90602
Re: Comments on the Draft Environmental Impact Report (DEIR) for the Whittier Main Oil Field Development Project

Dear Mr. Adams:

I am writing to inform you that I strongly support the efforts of the Puente Hills Landfill Native Habitat Preservation Authority to protect our shared open space in the Puente Hills.

I have read the Habitat Authority's letter to regarding the recent Draft Environmental Impact Report. I support their letter. I particularly support their recommendations to keep the oil drilling facility out of the Core Habitat of the preserve.

JoyceJ-1 The visual impact analysis of the project does not adequately account for the future removal of non-native trees. I recommend that the visual impact of the project be assessed to include an evaluation of the project without non-native trees. The Habitat Authority and Los Angeles County have been active in removing eucalyptus trees, which are not native. One of the reasons mentioned for the their removal has been that they are an increased fire hazard. Therefore it is reasonable to do an analysis of the visual impact of the project anticipating the removal of the non-native trees, the pepper and eucalyptus in particular. Some of the simulated pictures in DEIR demonstrate the drilling facilities obscured by vegetation. However, some of this vegetation is non-native trees. In the final EIR please, include simulated photos with the non-native trees removed.

JoyceJ-2 In speaking with other citizens there seems to be confusion as to weather this project will involve hydraulic fracturing. Can you please state clearly in the final EIR that this project will not include hydraulic fracturing and therefore hydraulic fracturing is not evaluated in this EIR. If this project can include hydraulic fracturing without a new EIR, please include an evaluation for hydraulic fracturing.

I hope the members of the City Council can make decisions regarding the oil drilling that generations from now can admire.

Sincerely,
John Joyce

From: jadams@cityofwhittier.org
To: Jennifer McDevitt; joann@jalcps.com; Luis Perez
Subject: Harvey & Julie Kahn - Matrix Oil DEIR Comments
Date: Monday, July 11, 2011 3:12:15 PM

From: JKHK@aol.com [mailto:JKHK@aol.com]
Sent: Monday, July 11, 2011 2:54 PM
To: Jeff Adams
Cc: brenwillliams@charter.net; blamarche@pyxisassociatesinc.com
Subject: Matrix Oil

Subj: Matrix Oil/DEIR

At the Northwest corner of Mar Vista Street and Colima Road, there is a City of Whittier sign that says "Truck limit "3 tons". What will the effect be on March Vista St and Catalina when 8 to 10 oil tankers at 30 tons – 10 (ten) times -- the current truck weight limitation roll along Catalina and then Mar Vista eastbound from Catalina Ave. to Colima Road, five days a week? Has the possible structure damage, KahnHJ-1

such as major pot holes and even a sink hole been considered? What will the effect be on Suburban Water's water line below Mar Vista on the south side of the street; likewise the Gas Company with these trucks going eastbound to Colima? KahnHJ-2

There are calming circles at Enramada, between La Bajada and San Lucas, and one at Catalina. There are numerous signs on the north side of Mar Vista from Colima Road to Catalina that state speed limits of 30 and 20 miles/hour going West on Mar Vista. If these calming circles are removed, what prevents drivers going westbound to increase their speed to 40 and 50 miles an hour? Wasn't that the initial intention of the calming circles. KahnHJ-3

There is no pedestrian walkway or sidewalk on the south side of Mar Vista from La Sierra to Catalina street. The south side of the street is used by both pedestrians and members of the La Serna high school cross-country team. (On the north side of Mar Vista from La Sierra to Enramada there is no pedestrian walkway so people are really forced to walk on the south side!) There is a white line on the south side of the street that runs from La Sierra Street to past Catalina. At several places there is less than 4 (four) feet from the roadway to bushes/barrier on a pedestrians' or runners left side. These tanker trucks are wider than the average car. Is Mar Vista going to be widened to give greater safety to both pedestrians and the high school students? KahnHJ-4

Harvey & Julie Kahn
14924 Mar Vista St
Whittier, 90605
Ph. 562.789.5776
email: jkhk@aol.com

Jeff Adams

From: Lorry Kennedy [lorry@rockfevergraphix.com]
Sent: Thursday, July 21, 2011 2:04 PM
To: Jeff Adams
Subject: oil

Hello,

KennedyL-1

I am a resident of Whittier, and want to voice my opposttion to the prospect of drilling. And, I speak for my entire family.

This should not be decided by a city council that has obviously made up their minds, but by residents.

KennedyL-2

Air quality will be jeapordized; water supplies are at risk; hills that have been preserved as wilderness will be destroyed. And these are generational concerns, not short term.

There is no FEASIBLE reason to drill for oil. NONE. And I have yet to hear any argument for it that makes sense.

Thank you, Lorraine Kennedy

July 21, 2011

Attention: Jeff Adams, Community Development Department
City of Whittier
13230 Penn Street
Whittier, CA 90602
E-Mail: jadams@cityofwhittier.com

Dear Mr. Adams:

We submitted comments to the initial Draft Environmental Impact Report for the Whittier Main Oil Field Development Project in December 2010 and again in response to the Notice of Preparation and Public Scoping Meetings in May 2011. We have continued concerns with the revised Draft Environmental Impact Report that has been prepared. Below, please find our comments.

- As a young family that owns our home on Penn Street, we must put the health and safety of our children above all else. The prospect of several oil trucks traveling on Penn Street multiple times a day for years is reason enough for us to relocate. We will not take family walks to Penn Park or to Whittier College or to Uptown, amidst oil tanker trucks that are transporting oil, gases and other hazardous and toxic materials. We feel we have been inadequately informed and educated about the safety and health risks that will arise as a result of industrial activities added to an already overburdened street. How, specifically, will the safety and health of our children and our friends and neighbors be addressed related to this Project? What will the City do to protect residents of Penn Street from increased traffic on Penn Street, toxic emissions from oil tanker trucks, etc.? LaiMA-1
- Will parking on Penn Street be affected to accommodate the travel of oil tanker trucks? Already, parking is hard to come by given activities at Penn Park and Whittier College. Moreover, parking is restricted on one side of Penn Street from 8:30am to 3:30pm every day except Sunday. If parking is further affected by the oil tanker trucks, where will we park? Will LaiMA-2
  trees be taken away to widen the street? How unfortunate that would be to take away trees to make room for oil trucks. Just the thought is disappointing since trees make Whittier beautiful. LaiMA-3
- Will a more responsible traffic study be completed to analyze current traffic on Penn Street? With all of the recent changes to the sports facilities at Whittier College, we are confident traffic has increased especially since access to one of the gym buildings is now right on Penn Street. LaiMA-4
- We have been made aware that the Puente Hills Landfill Native Habitat Authority has issued a formal response opposing project access via Penn Street and the landfill. While we are not experts in the area of wildlife and habitat matters, we know this is of primary concern to the Habitat Authority. We believe their position is based on thorough research and expertise in their field. Given the Habitat Authority's position and our concern for our family, we struggle to understand any advantages of using Penn Street and the landfill for the Whittier Oil Project. LaiMA-5
- As stated previously, we also want to know how the City plans to compensate homeowners/residents if increased truck traffic on Penn Street results in cosmetic, or more significant, damage to our homes, cars, etc. LaiMA-6
- Also, how does the City plan to compensate homeowners/residents for decreases in property values as a result of nearby oil drilling and oil truck traffic? LaiMA-7

The Oilfield Project weighs heavy on us as homeowners on Penn Street. We will voice our concerns and participate in neighborhood efforts to make sure the City leadership hears its citizens. However, we will not stop short of relocating if necessary. One of our neighbors has already moved to another City because of the Oilfield Project and we have already put together a plan for our exit so that we may be prepared. We have been loyal citizens for the past 5 years, supporting local businesses and volunteering in the community. However, we cannot afford to have decisions made for us when it comes to the well-being of our family. LaiMA-8

It is our hope that in addition to addressing the above mentioned questions and concerns, the City leadership will seriously consider how best to inform and educate the public of the advantages and disadvantages of the Oilfield Project, and specifically the use of Penn Street. Granted there is the potential for much needed revenues for the City as a result of this Project; however, a rare and beautiful preserve will be impacted and families who care about their community will be lost. LaiMA-9

Kind regards,

Malan Lai & Alecia Lai

July 20, 2011

Jeff Adams
Planning Services Manager
City of Whittier
13230 Penn Street
Whittier, CA 90602

RE: Whittier Main Oilfield Development Project Revised Draft Environmental Impact Report

Dear Mr. Adams,

I have reviewed the latest DIER prepared by Marine Research Specialists concerning the Whittier Main Oil Field Development project and must stress that I feel the project as proposed presents too many adverse impacts upon our community and I urge you to reject the Matrix proposal. I found discrepancies in their description of the project, issues that they reported as addressed that weren't, inadequate analysis and issues that they report simply cannot be mitigated. I will explain my issues in the ensuing paragraphs. I ask that these issues be taken into account in evaluating the lease request by Matrix Oil and Clayton Williams Energy.

The areas of concern that I have fall into three areas - recreation, biologic and traffic. The report is clearly slanted in favor of the people who paid for it and is proposing to let a project move forward that is clearly not in the best interests of the City or its people. My specific areas of concern are as follows:

- **Report underestimates affects on recreation** – The volume of recreational users was taken in 2006 before Deer Loop Trail was opened and while the Arroyo Pescadero trail was washed out at the one mile mark. As a hiker of this trail for the past ten years, I find it disturbing that impacts on recreational use would use figures from that time. The volume is significantly higher today and opening the Deer Loop extension has made this area more accessible to the elderly and disabled. To assess true impact on recreation the authors should perform a more current analysis of who uses these trails and how we will be affected. LaMarcheB-1
- **Closure of Arroyo Pescadero trail** – The DEIR does reference closures of this popular hiking trail during phase I of the project. It does not speak to the length of the closures and because the true number of recreational users is unknown, it is not possible to assess the impacts of these closures. In addition, I find the suggestion that the project possibly use the Loop Road access to be particularly disturbing in that the effect of this would mean permanent closure of the hiking trail. LaMarcheB-2
- **Industrialization of view sheds is unacceptable** – The report does acknowledge that the affects to the views cannot be mitigated. It is my position that the industrialization of a natural area is simply unacceptable. To introduce trucks, cranes and a 125 foot drilling rig is incompatible with the wilderness experience and this will have a lasting negative impact upon Whittier and its citizens. LaMarcheB-3

- **Report contradicts itself on the true footprint of the project** – In the project description, it speaks to a 6.9 acre site. Then in table 4.2-3, a much larger area of destruction is revealed. Given that the DEIR is several hundred pages long, I do not feel that you are giving the public a true picture of the project from which to develop an opinion. LaMarcheB-4
- **Traffic analysis is simply not thorough** – In my letter dated April 30, 2011, I requested that the *specific* route that the construction vehicles and oil tankers would be taking through our City. The response in section 4.7 does not address the specific route. Instead it outlines a number of different intersections. One, in particular, Colima and Mar Vista is very heavily traveled and the backup in the morning and evening are already above tolerable limits. In referencing this specific intersection, the mitigation measure mentioned is to remove the "traffic calming bulge outs" east of Catalina. Speeding up traffic above posted limits will not mitigate the traffic problems on this street. Instead, I would contend that this will only increase the number of accidents and endanger pedestrians. In any case, I still want to request the specific route that tankers and construction vehicles will take. This is the only way I can respond to the DEIR. LaMarcheB-5
- **Traffic vibration is not addressed in the DEIR at all.** In my letter dated April 30, 2011, I raised concerns regarding lifting the three ton weight limit on Mar Vista. I specifically asked for an assessment of the affects that vibrations from these heavier vehicles would have. In the DEIR you state that this is referenced in the DEIR, but in reality no traffic vibration assessments are in the document. The only vibration references I can find are in regards to drilling. I would like to see an assessment of what the added weight limit will have on our street and see references to any contingency funds that the city might need to set up to accommodate them. LaMarcheB-6
- **North Access Road construction is not "environmentally superior"** – the development of this alternative is clearly political in nature and simply should be rejected. The loss of habitat is 4.16 acres including 0.86 acres of coastal sage. How this could be termed "environmentally superior" is laughable and MRS should be ashamed of themselves. In addition, I would contend that the figures used in section 4.2 are not accurate. I would request a full engineering assessment of the feasibility of utilizing this access road as I feel that stabilizing this access and making it passable for the vehicles projected in this project will destroy much more than the 4.16 acres in the DEIR. LaMarcheB-7

In closing, I would ask that the Planning Department assert some independence from our City leaders in assessing the impacts that this project will have upon our city, its environment and our citizens. This is not a simple project and it will have long lasting effects. So far in this process, I have felt that this has been a joint project between the city and Matrix Oil. As a representative of Whittier's Community Development Department, you are responsible for responsible use of our land resources. I contend that this project is wrong for the City and it's people.

Sincerely,

Bruce LaMarche
8210 Enramada Avenue
Whittier, California 90605

Resident Objections to the EIR Report on the proposed Oil Drilling Facility in Whittier Hills, (including the associated risks of increased traffic volume, air pollution and noise levels on Penn Street, Whittier)

July 18, 2011

Prepared by:

Roanld F. Johnson, 13883 Penn Street, Whittier, CA 90602

(*Penn Street Resident for over 10 years*)

Introduction

This document has been prepared to give the perspective of actual residents in Whittier and not consultants nor City Council members who live far away from the disruption to the wildlife habitat. The residents are the ones who will have to bear the brunt of increased noise, reduction in air quality and potential danger because of the burden the city wants to place on just a few residents. They will also face irreversible home deprecation because of the decision of the City Council in choosing their most convenient trucking routes.

We are not against drilling for oil in any way, shape or form – but we do insist that what the County of Los Angeles and the City of Whittier (including Matrix) will implement, will not adversely impact the lives of the Citizens of Whittier or our existing nature preserve.

We ask you, as our City Council, to read and respond to each and every one of our concerns in writing. We would like all the County of Los Angeles and the City of Whittier Council members to pay close attention to Section 608 of the City of Whittier Charter (Illegal Contracts). Financial Interest should be addressed by each member of Whittier Council in the form of signing a personal declaration that they are complying with this important section in the Charter of the City of Whittier.

The City of Whittier Mission Statement on their website, "the Community Development Department is committed to delivering personalized service, while encouraging a safe, well-designed physical environment and seeking to facilitate balanced growth, preservation and revitalization" (www.cityofwhittier.org/depts/cd/mission.asp). If the City truly operates to this mission by approving the Oil Drilling project they are in violation of their operational commitment to the community. Increasing traffic on Mar Vista, Catalina, Penn and Painter (plus other alternatives routes to be used at will and not yet disclosed in the EIR) does not foster a 'safe, well-designed physical environment'. The mission statement also commits the City to 'Balanced growth, preservation and revitalization'. How is increasing road traffic, increasing noise levels, reducing air quality and destroying a wildlife habitat accomplishing that??

Both the Native Habitat Preservation Authority (July 14, 2011) and results of the lawsuit filed against the Baldwin Hills Drilling (July 6, 2011) recognize a "failure by the County of Los Angeles to conduct an adequate EIR report". And yet, we have the very same organization submitting inadequate, nebulous EIR report versions to the residents of the City of Whittier. This has to change if we are to reach agreement on any of the proposed drilling project terms – stop delivering minimal information, we need full disclosure!

We respectfully request that the Council look at new and innovated ideas to bring financial funding to the City instead of resurrecting old outdated ideas.

While the Draft EIR document has many areas of concern, our focus was on those areas that have a direct impact to our residential neighborhoods. While you will not find comments submitted on every section, those not commented on are no less important. We concentrated on air quality, noise, traffic, safety and disruption of wildlife to our urban neighborhoods.

LunaP-1

1. The Daily Traffic survey on Penn Street/Painter/Hadley in the current DEIR is insufficient. Therefore a simulation (trial period) with empty trucks each day (20 oil tankers making 4 rounds trips each day as demonstrated by Mr. Perez at the Community Center) should be carried out for a minimum of 3 weeks on a daily basis. Only then can the true environmental impact of heavy traffic on air quality, noise and safety each day on Penn Street be evaluated.

LunaP-2

2. Before the aforementioned 'dry run trial period', the Environmental consultant must first measure air quality through placing a device(s) which will give readings on lampposts on Penn and actually in Penn Park pertinent to air and noise quality readings every 15 minutes over 24 hours in each day over 3-4 weeks. These readings must be posted publicly as a matter of record. Doing this will create true baseline from which the County of Los Angeles and the City of Whittier and Matrix can work from.

LunaP-3

3. Full tankers with up to 6,000 gallons will have an impact on the upkeep of Penn Street plus they will have to travel at 20mph or less down Penn when full to avoid running the traffic lights because of the following weight going down the grade.

LunaP-4

4. What EXACTLY will be in these tankers? Full disclosure is required. Why, because any HazMat team will need to know what they are dealing with and how to combat a spillage/collision or explosion. The Residents of Whittier need to be informed of exactly what is being carried in these oil tankers along their streets.

5. We need guarantees that the oil tankers will not be stopping and 'stacking up' outside the current landfill site on Penn Street waiting for access to the proposed oil plant. There is park adjacent to the proposed access and frequently the City just takes up the

LunaP-5 public parking with their vehicles which then causes inconveniences to the many people who want to enjoy this public recreational park. The initial proposal was very conscious of the feelings of the people who use the wildlife trail – so we urge the City of Whittier Council to treat the hundreds of people who visit Penn Park during the week with the same courtesy in a more relevant EIR that needs to be created.

LunaP-6 6. What is the schedule for these trucks – again, the residents need full disclosure. Hours of operation, true volume of oil trucks on Penn/Painter/Hadley etc.

LunaP-7 7. Does Baldwin Hills (another County of Los Angeles drilling site) have a fully trained hazmat response team within 10 minutes location of the drilling plant? Please evaluate what other oil drilling cities do regarding hazmat response team and the use of chemicals that must be used with oil operations, testing oil equipment, and chemical needed to combat emergency situations at the oil operations.

LunaP-8 8. Schools – there will need to be training or even employment of a hazmat director at each school (including Whittier College) to work with the authorities when a spillage/explosion occurs and co-ordinate evacuation, student accountability, carry out monthly drills, etc.

LunaP-9 9. The Fire Department in Whittier is totally unprepared for any accident at this point in time due to the proposed oil drilling operation. There has to be intensive training and the purchase of necessary equipment to enable them to be effective and not rely on a station 20 miles away that will take anywhere from 1.5 hrs to 2 hrs to arrive. Fires need to be addressed within 15-20 minutes of outbreak. If there is a spillage (under USDOT regulations), effective first response to an incident involving hazardous materials

(hazmat) is critical to minimizing the impacts of the incident in terms of public and responder safety, environmental degradation, and costs for clean up.

LunaP-10

10. Well-defined hazmat response policies and procedures and responder training allow first responders to accurately identify the hazardous material and direct further response. For certain spills, equipment carried in the first response vehicles (from Compton, 1.5hrs away) can be used to contain the spills until the fire department or hazmat contractor can arrive at the scene. If the Fire Department proposes to use 3M Lightwater ATC FC600 foam concentrate this too has serious environmental issues. It has been established that PFOS (foam concentrate) has a very unfavorable persistence-bioaccumulation-toxicity (PBT) profile and any discharge to groundwater would result in long-term environmental consequences. No-one knows what its half-life is. The lithium salt in PFOS is a registered US EPA insecticide which kills bees and wasps. The long-term effects on humans are not known. But disturbances to liver and hormone metabolism and birth defects in rat embryos as well as potential carcinoma of the prostate in human have been highlighted.

The chemical feedstock used in the manufacture of 3M PFOS-type fluorosurfactants is perfluorooctanyl sulphonyl fluoride (C8F17SO2F). In the environment the fluorosurfactants degrade to give perfluoro-octanyl sulphonate (PFOS).

LunaP-11

11. Is the City going to install unique highly audible alarms (and not just a siren) to alert the population that there is an actual chemical explosion within the immediate area? Will they program the telephone numbers of every resident within a 5 mile radius of the oil

plant to automatically send out an alert to leave the area? (This could also be done by text messaging.)

LunaP-12 12. How are the police going to evacuate over 10,000 people (at least) within this 5 mile radius of the plant effectively? Again what drills will be set up to train the police and residents to do this properly?

LunaP-13 13. Within the site, will there be air quality monitors running 24 hours that will feed back information about possible emission violations under the EPA statutes? Will a record of this be published on the City website and delivered to the local EPA office for monitoring?

LunaP-14 14. Drilling in the wildlife preserve will drive wildlife close to urbanization. So residents will deal with more coyotes and more deer – what is the City's proposal to deal with this 'influx of new residents' with the safety of the residents considered as well?

LunaP-15 15. Empty trucks coming south on Painter will need to turn left onto Penn. For a single truck this is extremely difficult – but a truck with two tanks would be virtually impossible. Therefore, the first thing the city needs to do is install a left filter green light to at least give a large truck time to turn left and not endanger any oncoming residents of Whittier in a potential car accident.

LunaP-16 16. Will the park be installed with safety gates to prevent children running out into the car parking area (as they do often)? At this point in time all access to the park is through numerous openings in the surrounding hedges. These openings need to be closed gates that can be opened either side by adults for access for themselves and their young

children. The City should take responsibility for the safety of all individuals (adults and children) accessing recreational Penn Park during the day.

LunaP-17 17. Many, many more people visit Penn Park during the week than visit the Habitat Preserve – yet we see nothing in the current DEIR about the preservations of its existing noise levels and air quality. Does the City of Whittier Council not care about preserving current air and noise levels for its residents to relax in safety in an already over burdened Penn Street neighborhood?

LunaP-18 18. Trucks must travel at a speed lower than the 30mph both up and down Penn Street (because of their size and weight) to reduce potential accidents. Currently there is not room enough for two garbage trucks to pass each other at the same speed on Penn Street. I have seen many times one garbage truck pull over to the side to let the other garbage truck pass. Garbage trucks do not carry flammable liquid or toxic liquid, so if they do not pass each other why would we allow oil/chemical tankers to pass each other at speeds in excess of 15mph?

LunaP-19 19. The current garbage trucks that currently traverse Penn Street on a 6-day basis will not be stopping when the oil trucks come. So how does the County of Los Angeles and the City of Whittier justify putting the whole burden of unbearable traffic, noise and reduction of air quality on the residents of one tiny Penn Street in Whittier?

LunaP-20 20. All trucks MUST give way to residents to reduce the possibility of accidents along Penn Street regardless of the time of day.

LunaP-21 21. The City Council is prepared to change established and enforced Whittier City Bylaws to push this Oil Drilling proposition through. Therefore, do the City of Whittier Council

members who voted and are on record, accept full personal responsibility and liability for any lawsuits that may arise from ignoring these reasonable requests by the residents in the event of any traffic accidents or an explosion at the proposed oil drilling plant?

LunaP-22

22. Environmental Justice Section of the DEIR (p4.14/2). The Census information in the document is based on the 2000 Census – 11 years ago. Does the City truly believe nothing changes in 11 years?? The USA as a country changed in 2001 never to be the same for anyone. Has Whittier not grown in population in 11 years, I find that very hard to believe. If the DEIR is to be accurate, it needs to be re-written with better analysis using the latest (2010) census information that is available.

LunaP-23

23. Environmental Justice Section of the DEIR (p4.16/5). Yet another anomaly in the EIR is the Poverty Status – once again, the creators of the DEIR used 1999 information – 11 years old! WE all know that the economy took a downward tail spin in 2008 and has still not recovered. Using the 1999 Poverty Status is unacceptable and this needs to be re-analyzed using 2010 census available data.

24. Transportation (p4.7/1). The baseline analysis on 2010 traffic counts is unacceptable. It states very low traffic for Whittier College when in fact in early 2011 Whittier College opened its new Sport Complex plus rents it out to other athletic clubs and schools. When there is a sports function at Whittier College (and there have been many in the week and weekend over the past 180 days) Penn Street is full of cars coming and going and may people crossing and walking down the middle of the street. Therefore, a new traffic baseline needs to be created for York thru Penn Street to Painter including College to Penn – and not just one day as the present EIR, but over a period of 45 days.

LunaP-24 This new baseline analysis needs to be 24 hours and day and when Whittier College is in full operation – there are electronic devices that can be rented by the city to be placed at various locations to monitor traffic flow around the clock. The current analysis only looked at traffic during early morning and coming home traffic entering and exiting Penn and Painter intersection. This analysis is flawed as it has missed gaps of traffic during the day of the garbage trucks and Penn Park activity. Many people use Penn Street and College Avenue to drive through the area that was not picked up in the flawed traffic analysis plan. Many people also use York to pass Penn Park to enter Whittier College this traffic is not calculated either with the flawed analysis plan of the DEIR. All traffic analysis results should be published on the City of Whittier website under a new page that needs to be added for daily recording of Penn Street traffic along the entire length from York to Summit, Penn to landfill access, Penn to Canyon Crest, Penn to College and finally Penn to Painter. The analysis should be 24 hours a day, 7 days a week, for 30 to 45 days. This should accurately record the average traffic using the already impacted Penn Street/York and all street intersections through to Painter Blvd.

25. LunaP-25 The DEIR states that Whittier College only play 4 games a year – this is a ridiculous statement unless the creators only paid attention to football. There are track, football, basketball and volleyball played year round. But then if only one day was spent evaluating this – how would the DEIR developers know? All these collective sports events bring a dramatic traffic increase to Penn Street plus create a parking nightmare. Whittier College now has traffic marshals that stand at the intersection of Canyon Crest

and Penn Street during a sporting event who directs traffic and dictates street parking – shouldn't the City be involved in that?? Many local schools transport in athletic teams and park in red zone areas, is this safe? Is this something that the City sanctioned?

LunaP-26

26. The new traffic baseline (p4.7/2 – p4.7/4) must use the same traffic intersection as stated on page p4.7/2 as identified in its 13 points in the EIR document. Plus street segments identified in the p4.7/3 and p4.7/4 including York and Summit and landfill access.

LunaP-27

27. With regard to pedestrians who cross both Penn Street and Painter Boulevard during the day, what are the hours of operation that oil trucks will be traversing Penn Street (still not disclosed by the City/Matrix/DEIR document). There are a substantial amount of foreign students who attend Whittier College and Kaplan English Language schools. With the increased danger of multiple trucks entering and departing from Penn Street, the four signals needs to improved with audible warning, the 'countdown digital display' and any other measure that can ensure the safety of these pedestrian students. The City relies on these students for revenue therefore it should pay attention to their safety with sincere interest. Remember…cars can stop much faster than trucks!

LunaP-28

28. Penn Park has visitors who are mentally and physically disabled to the park each day – sometimes as many as 10 plus 1 or 2 caregivers. I have personally seen many times that these individuals (through no fault of their own) start to wander into the middle of the road and have to be brought back into the park. This is a recreational park created by the forefathers of Whittier City Council for ALL residents – the safety of these individuals carries the same importance as any other resident of Whittier and yet the DEIR bears no

mention of their enjoyment of the park. The DEIR does not mention anything about the hundreds of visitors to Penn Park throughout the week. This is of paramount importance for quality of life for a lot of residents – but then again, the DEIR developers probably only spent a day on that too.

LunaP-29

29. All the EIR and relevant documentation regarding this proposed increase of traffic, reduction of air quality and increased noise plus accompanying safety issues is only in English. I would ask the City to explain why when they state in the EIR (p4.16/5) that 55.9% of the City of Whittier residents are Hispanic, that the ALL documentation is not bi-lingual?? In fact there are other minorities too in Whittier – does the City not care about their concerns or worries and choose not to inform them??

LunaP-30

30. An EXACT truck route needs to be determined and fixed by the City of Whittier and Matrix before any EIR can be determined. Why?? Because each route brings it own unique requirements and for the developers of the EIR to say at the meeting at the end of June, 2011, that 'the Penn/Painter/Hadley/Whittier Blvd/605 is the preferred route but the others can be used' is a ridiculous statement to make. CEQA (California Environmental Quality Act 1907 clearly states that "CEQA establishes both a procedural obligation to analyze and make public adverse physical environmental effects, and a substantive obligation to mitigate significant impacts". How can the City of Whittier comply with these clearly stated rules when they will not commit to disclosing which routes the trucks will use on Penn Street, what is the proposed schedule of trucks and if 80 visits per working day (or even 7 days a week) is public knowledge. At the June meeting with the developers of the DEIR posted a slide showing there would be 20

trucks per day (which does not seem a lot considering we have many more landfill trucks traversing Penn Street today). But, in the DEIR (p4.7/18) it discloses that those 20 trucks will make a total of 4 trips daily in and out of the proposed site – meaning there will be 80 trips up and down Penn Street each and every day for at least 25 years. How can that not harm the environment in air quality, safety and noise?? The DEIR information is ambiguous and misleading in a representation to play down the disruption the City will cause to the residents of Penn Street and others.

LunaP-31

31. Intersection Analysis (p4-7/20). A new Analysis of Traffic with regard to this section needs to be carried out over a 45-day period. The 2010 report on traffic needs to be references as the much stated 'baseline' from which to carry out the 'reality of daily traffic. All new analysis must be posted on the City website for the residents to be able to view and comment on.

LunaP-32

32. In the DEIR it states that a Plant Carpool will be created away from the actual plan to facilitate less cars coming up and down Penn Street and Catalina. Where will this carpool be located – at the bottom of Penn or outside of the City limits? What environmental impacts will the Plant Carpool place upon the chosen area, of which we are not knowledgeable of since it has not been disclosed.

LunaP-33

33. The cost of the construction of this plant will be enormous and I wonder if it coincides with the recent notification of an increase of 30% in utilities. We need full disclosure of who is paying for the water used at the new plant, the removal of earth etc. by the City. It is ridiculous to expect the residents of the City of Whittier to pay for this work when only the County of Los Angeles and the City of Whittier benefit financially from this

project. A review of utilities needs to be conducted as to why the residents are paying 30% more for water when we do not have a water shortage.

LunaP-34

34. The impact that 80 truck trips each and every day will have on the homes (many are over 50 years old) in terms of structural failure of buildings, damage to sewer and water pipes that go down Penn Street. Therefore, does the City or Matrix intend (over the unlimited timeline for the Lease) to pay for all claims that arise from such damage or are the residents supposed to carry that burden themselves. The residents do not want that many trucks each and every day traversing Penn Street – so why should we pay for the damage that will inevitably occur?

LunaP-35

35. Are all the major hospitals in the immediate vicinity capable of handling hundreds of people with various injuries should there be a toxic spill from one of these trucks or an explosion at the plant or even air pollution? This needs to be top of the list for the City to be included in the DEIR.

LunaP-36

36. If this project is passed, the volume of daily trucks, air pollution and noise levels will adversely affect the value the quality of residential life and wildlife. But also, the traffic, air quality, etc., will devalue the property values of our current homes (already decreased by the recession). I would like to ask if the City of Whittier/Matrix are going to be prepared to pay the difference between the best offer for any home on Penn Street and the current real estate comps? Penn Street residents should not lose financially out of this unwelcome project and the County of Los Angeles, the City of Whittier and Matrix Oil gain from it.

LunaP-37

37. Is the operation of the plant going to be 24 hours (again nothing in the DEIR). If so, that means the trucks will, during any 24 hour period traversing Penn/Painter/Hadley/ Whittier Blvd., and who knows where else. We demand specifics and not have them 'hidden' in case it raises objections that will impact the immediate acceptance of the drilling project.

LunaP-38

38. At the June meeting with the DEIR developers, Mr. Perez stated that the proposed volume of trucks would not exceed what we already have on Penn Street for the landfill. However, he failed to realize that these garbage trucks will NOT be going away – so now the traffic would be doubled at least. But then he 'forgot' to mention those 20 trucks each make 4 trips each and every day up Penn Street resulting in a total of 80 trucks (albeit the same 20). This is a very clever manipulation of statistical information but again, as residents, we demand truth and clarity.

LunaP-39

39. We need clear identification of EXACTLY will be contained in these trucks in and out of the drilling plant. We require an MSDS (Material Safety Data Sheet) as clearly defined by OSHA for us to determine if they are hazardous to the residents in any way, shape or form. Please supply those in response to this document.

July 21, 2011

Jeff Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602

Dear Mr. Adams,

Thank you for the opportunity to comment on the Public Revised Draft of the Environmental Impact Report for the Whittier Main Oil Field Development Project, dated June 2011 (DEIR). As a resident of the City of Whittier I am very concerned about the additional air pollution, noise, vibration, and visual blight that will be caused by the oil project in the Whittier hills. I am also concerned that the increased traffic, hazardous waste, odors, risk of fire, and demands on public services caused by the oil project will degrade the quality of life in Whittier. The negative impacts to wildlife, recreational opportunities, and human health and safety that will result from the land use change from park/open-space to industrial are incompatible with the expectations of the residents of Whittier and other communities adjacent to the native habitat preserve.

The list of City Objectives, shown on page ES-1 includes generating income. The rest of the list describes minimizing impacts to eight areas of concern that will certainly suffer negative impacts for the oil drilling project. However, even a successfully minimized impact described in this DEIR is still an increased or new impact over what is currently being experienced. The amount of income that will be generated by this project at various levels of development should be shown in this DEIR and should be based on contractually enforceable levels provided by Matrix Oil. The level of impacts that will result from this project can then be compared to the guaranteed income to be generated by the project. For example, the emissions discussed in the DEIR represent additional pollution resulting from the oil project, and are unavoidable. The City Planning Commission and City Council should have to evaluate whether increases in health risks to area residents and visitors, or ecological impacts are worth the dollar amount that will be paid to the City.

The following are my comments regarding the Recommended Mitigation Measures presented on Tables 8-1 through 8-17:

AQ-1a

The Draft EIR states that construction activities would generate emissions that exceed SCAQMD thresholds (AQ.1). These emissions are related to fugitive dust caused by cars, trucks and heavy equipment during construction, testing and operation phases. Four mitigation measures are recommended in the DEIR. Measure AQ-1a emphasizes the application of water to control dust. These measures rely primarily on manual application of water to moisten disturbed soil. During periods of low humidity and or high wind, the proposed measures may not be sufficient to

eliminate fugitive dust from migrating into adjacent residential areas or preserve trails. The Fugitive Dust Control Plan should be included in the final EIR and define the following terms used in AQ-1a: "disturbed areas within a construction site", "industrial unpaved road", "storage piles" and "wind events". The Fugitive Dust Control Plan should also provide details regarding the radar enforcement of speed limits, soil moisture sampling lab procedures and soil moisture probe procedures that will be used. MartinezA-1

The DEIR states that a plan will be prepared in accordance with SCAQMD Rule 403, and that this plan will be reviewed and enforced by City staff. The plan should be available for public review in the final EIR and should also be submitted to the SCAQMD for approval. SCAQMD and City comments on the Fugitive Dust Control Plan should also be made available to the public. Monitoring/complaints/enforcement logs should be maintained by the City and made available to the public.

AQ-1b

The Draft EIR states that construction activities would generate emissions that exceed SCAQMD thresholds (AQ.1). These emissions are related to fugitive dust caused by cars, trucks and heavy equipment during construction, testing and operation phases. Four mitigation measures are recommended in the DEIR. Measure AQ-1b and AQ-1c proposed the application of soil binders to control dust from roads within the Preserve. Binders may contain chemicals that are harmful to wildlife or may cause unacceptable contamination of runoff water during rain events or runoff water from moisture control activities adjacent to roads. The final EIR must identify all binders that are considered for use, as well as a list of the chemical compounds and their concentrations in the binder solution. Binders must not be used which pose a potential threat to wildlife or surface water. The Los Angeles Regional Water Quality Control Board must be consulted regarding the potential impacts of these soil binders to surface water quality and comments from the LARWQCB must be included in the final EIR. MartinezA-2

The DEIR states that binders will have a minimum effectiveness of 80%. Please provide a technical definition regarding what this level of effectiveness means and how it will be determined when applied in this particular project.

AQ-1d

The Draft EIR states that construction activities would generate emissions that exceed SCAQMD thresholds (AQ.1). These emissions are related to diesel exhaust caused by trucks and heavy equipment during construction, testing and operation phases of this project. Mitigation measure AQ-1d proposes "the use of EPA Tier3-certified or better, engines, or utilize other CARB-verified emission control technologies to achieve the same level of emission reduction." While these measures will result in lower emissions of diesel exhaust, they do not eliminate the incremental increase in the amount of diesel exhaust that will be caused by this project. The cumulative emissions during construction and operation phases of the oil project will exceed SCAQMD thresholds for Regional and Local Impacts for several of the pollutants listed. The final EIR must include a quantifiable justification for exposing residents to these increased air-pollution emissions. MartinezA-3

The DEIR includes tables that summarize air-pollutant emissions in terms of pounds per day for several specific activities. These emission rates are then compared to SCAQMD acceptable standards. Since many of these activities will be conducted concurrently and will generate the same air pollutants, the tables should compare the cumulative emission rates for all activities to the SCAQMD standards, not emission rates from each individual task the SCAQMD standards.

The City of Whittier should reject any plan that allows releases of fugitive dusts during earthmoving, construction and maintenance of the oil production facilities proposed in the oil project.

AQ-4

The DEIR states that operations and drilling would increase greenhouse gas (GHG) emissions. The mitigation measure proposes the use of "green electrical power to run equipment, using high efficiency pumps and electrical devices, requiring diesel engines to use biodiesel, and other community activities that could offset greenhouse gas emissions." A standard should be established in the final EIR to define a minimum level of electricity from renewable resources that will meet the "green electrical power" requirement. A standard defining the term "high efficiency" must be provided in the final EIR. Detailed discussion on the GHG reductions achieved by use of biodiesel and potential increases in particulate or voc emissions as a result of using biodiesel must be included in the final EIR. Specifications for the type of biodiesel fuel that will be used must be included in the final EIR. MartinezA-4

"Other community activities that could offset greenhouse gas emissions" is vague and must be explained in the final EIR. Community activities should not include already-mandated GHG reductions required by the State of California. Nor should community activities include non-oil project activities already being conducted by the City or community members.

BIO-4a

The DEIR states that "all feasible means shall be employed to minimize noise effects upon wildlife," however no definition of "feasible" is provided or who would evaluate or approve the feasibility and effectiveness of any of the means that are proposed. Further discussion about this issue should be included in the final EIR. MartinezA-5

BIO-4b

A biological monitor may be qualified to evaluate the impact of the lighting on wildlife, however, a lighting specialist should also be hired to determine if the lighting has been designed to minimize light spillage, and if not, to require changes. MartinezA-6

BIO-4c

Radar speed monitoring should also be employed at various points along the access road to record speed. These monitoring records should be used to enforce speed limits and should result in the issuance of speeding tickets for the offending drivers. MartinezA-7

Jeff Adams
Whittier Hills Oil Project – Draft Environmental Impact Report
July 21, 2011

BIO-4e
The DEIR states that there will be a 100-foot buffer area around any active songbird nests. This is twice the buffer recommended by the Los Angeles Audubon Society[1] for songbirds, and is appropriate for this project. MartinezA-8

BIO-4f
The DEIR states that there will be a 300-foot buffer area around any hawk and owl nests. However, the Los Angeles Audubon Society recommended buffer for raptors is 500-feet, which, for this project should also be doubled, to 1,000 feet. A 1,000 foot buffer zone should also be applied for any endangered or threatened species identified during previous or new nest surveys. MartinezA-9

BIO-4g
The level of detail provided in this mitigation measure should be provided for the two previous mitigation measures (BIO-4e and BIO-4f). The construction buffer should be 500-feet for bat roosting areas. MartinezA-10

BIO-4i
This section should be rewritten as follows: "Project lighting shall not be directly visible from…." MartinezA-11

BIO-4j
While important, this signage will be hypocritical since it is being installed in response to a project that will cause Significant and Unavoidable Impacts to wildlife. MartinezA-12

SR-1
The DEIR states that the oil project "could introduce risk to the public associated with accidental releases from well drilling and processing operations." The six proposed mitigation measures deal only with site security and restricting access to the oil facilities and surrounding area from the public. These measures are completely irrelevant to the increased risk being discussed and are utterly unacceptable. The risk to the public from releases from well drilling and processing operations will not occur within the already-restricted project area, the risk will occur in the areas that will be impacted by releases of toxic gases and/or liquids to the atmosphere, land surface or subsurface. The increased risk occurs when residents, workers and visitors around the oil project site are exposed to hazardous materials emanating from the oil project site. Even extreme security measures are useless to protect the neighborhood from an accidental release of hydrogen sulfide gas, or a catastrophic release of oil or liquid waste from the processing facility, or shallow subsurface migration of hazardous materials. MartinezA-13

N.3
No mitigation measure is proposed for the increase in vibration levels in the area. The effect on MartinezA-14

[1] 1 Los Angeles Audubon Society Guide to Bird-Friendly Tree and Shrub Trimming and Removal (March 2009) [http://www.nationalforestassociation.org/documents/Bird-Friendly-Tree-Trimming-Guidelines.pdf]

wildlife and nearby structures and residents is significant. A significantly smaller project with fewer wells, less traffic and less construction needs, would reduce the level of vibration (as well as many other significant impacts) and should be discussed in the final EIR.

N.5
Implementation of mitigation measures N-1a through N-2c and N-4 is proposed to reduce noise levels for the proposed project, however, no details are provide in Table ES-2 which deals with Significant and Unavoidable Impacts. The details of each of these measures should be shown in Table ES-2 N.5 and the text of the final EIR should explain why these measures would fail to reduce the noise impact. MartinezA-15

AE-1a
The DEIR states that oil drilling equipment, oil processing equipment, access road and other elements, could degrade public viewsheds." A self-selected community landscape review group should also be allowed to review and approve any landscaping plans. Landscaping measures may not be adequate for roads or "other elements". MartinezA-16

AE-1b
Visible oil production and processing structures cannot be made "compatible" with the Native Habitat Preserve, no matter how they are painted or surfaced. The word "compatible" should be replaced with "visually less obtrusive". Painting requirements would be inadequate or inappropriate for roads or "other elements." MartinezA-17

WR-5a
The city must employ staff with appropriate oil-field operations inspection experience (petroleum engineer or equivalent) and establish inspection standards. Inspection and violations records must be available to the public for review within five working days after inspections are conducted. MartinezA-18

WR-5b
This section should be rewritten to include all pipelines, storage tanks and processing equipment. Also, standards by the Department of Oil, Gas and Geothermal Resources should also be cited here. MartinezA-19

WR-5c
This section should be rewritten to include all pipelines, storage tanks and processing equipment. Also, standards by the Department of Oil, Gas and Geothermal Resources, the Regional Water Resources Control Board and the County of Los Angeles should also be included in this section. MartinezA-20

WR-5d
Secondary containment should be required for all pipelines, above ground and below ground. Monitoring and release reporting standards should also be specified. MartinezA-21

Jeff Adams
Whittier Hills Oil Project – Draft Environmental Impact Report
July 21, 2011

LU.2 and LU.3
As Significant and Unavoidable Impacts to land-use policy, the associated mitigation measures should be listed in full. The reference to other sections of the DEIR is insufficient. Also, none of these measures (N-1a through N-1c and N-2a through N-2c and N-4, and AE-1a and AE-1b) are inadequate to mitigate the effect of incompatible industrial land-use to the adjacent residential and open space land-uses. These mitigation measures provide minimal mitigation of noise and aesthetic impacts, however, incompatible land-uses can only be mitigated by eliminating the offending land-use. MartinezA-22

REC.2 and REC.4
As Significant and Unavoidable Impacts to land-use policy, the associated mitigation measures should be listed in full. The reference to other sections of the DEIR is insufficient. Also, none of these measures (N-1a through N-1c and N-2a through N-2c and N-4, and AE-1a and AE-1b) are inadequate to mitigate the impacts to the recreational uses caused by the oil project. Health impacts to recreational users should also be quantified and discussed in detail. MartinezA-23

(Less than Significant with Mitigation Impacts)

AQ-2a
Emission offsets provide no relief to the area immediately surrounding the oil project. MartinezA-24

AQ-2b
SCAQMD emission thresholds are based on health impacts. Implementing this measure reduces the emission levels but these levels still result in adverse health impacts. Zero emission vehicles and equipment should be required for all phases of work related to the oil project. MartinezA-25

AQ-3a
This measure is standard oil operation and is not intended to eliminate odor events, but to vent combustible gasses recovered during routine oil field operations. MartinezA-26

AQ-3b
This measure is standard oil operation and is not intended to eliminate odor events, but to reduce the risk of fire or explosion from high pressure building up in storage tanks. MartinezA-27

AQ-3c
The Odor Minimization Plan should be presented in the final EIR. In addition to the log of complaints, logs should also be kept of the corrective actions taken in response to each complaint or other violation. The City should also set a standard of compliance, and sanctions (including fines and termination of the project) for frequent and serious violations. MartinezA-28

AQ-3d
A community notification system should be established that would provide residents, and parents of students and staff at the Mar Vista School of real-time information about odor events and corrective actions. This system must also be capable of providing emergency warning and evacuation notices in the event of a catastrophic release. MartinezA-29

Jeff Adams
Whittier Hills Oil Project – Draft Environmental Impact Report
July 21, 2011

AQ-3e
The DEIR states that equipment will be used "…such that no odor can be detected at the edge of the oil field property." The "edge of the oil field property" must be clearly defined and must coincide with the boundary being used to measure the area of the project. MartinezA-30

AQ-5a
The DEIR states that "operations and drilling at the Whittier Main Oil Field would emit toxic materials." This mitigation measure deals only with diesel emissions from drilling equipment. This fails to address toxic emissions from oil and waste storage tanks, oil and gas processing equipment, trucks, pipelines, flares, oil wells and injection wells. Again, the mitigation measure proposed for the potential exposure of the nearby residents and students and staff at the Mar Vista School is woefully inadequate. MartinezA-31

AQ-5b
Limiting drilling at the various drill sites provides some relief to the nearby residents from any number of drilling related impacts, however, this does not address any of the potential impacts from the oil project operations. Nor does it make any significant reduction in the potential impacts during the drilling procedures; emissions still occur, but only during a four-month period. The total drilling time needed would not change, and the duration of the drilling in this area would be three times as long. The Final EIR should state how this mitigation measure would be applied to the Consolidated Central Drilling Alternative. MartinezA-32

BIO-3
The DEIR states that "a rupture or leak from oil wells, pipelines or other oil field-related infrastructure has the potential to result in a substantial adverse effect on sensitive species, sensitive species habitat, and sensitive habitats including riparian and coastal sage scrub." This impact statement should include ruptures or leaks form vehicles and other mobile equipment within the drilling and oil/gas processing areas as well as along access roads and public rights of way. The ERAP should identify all ecologically sensitive areas to a distance of two miles downstream of the oil and gas drilling and processing areas.

The ERAP must also include provisions for containment and cleanup within residential and commercial area within two miles downstream of the oil project location. The ERAP must contain detailed descriptions of various containment and cleanup alternatives for each segment of the streambed. Selection of a containment alternative would be made during an emergency event; however the plans should be reviewed and approved by the California Department of Fish and Game, the Los Angeles Flood Control District or Public Works Department, and the Los Angeles Regional Water Quality Control Board (LARWQCB). Final selection of a cleanup alternative(s) should be made after the extent and nature of the release is determined and each unique segment of the stream, including ecologically sensitive segments, are evaluated. The final method of cleanup should also be proposed to each of the agencies listed above and the California Department of Toxic Substances Control (DTSC), which should act as the lead oversight agency for all cleanup activities within residential or commercial areas. The "non- MartinezA-33

cleanup" option should be reserved only for very small scale releases (less than 100 gallons) and would not be acceptable for areas adjacent to residences. Whichever cleanup alternative is selected, a monitoring program including environmental chemical analysis of soil, surface water, ground water, and soil vapor must be proposed and approved by the LARWQCB and/or the DTSC. Public notification of all releases from any oil project-related activities must be made within 24 hours by hand delivery of all homes within 500 feet of the extent of the release.

SR-3

The DEIR states that "the proposed Project could mobilize soil contamination that could affect groundwater and environmental and public health." The mitigation measure proposes conducting an environmental site assessment before commencing project construction. A site assessment workplan must be submitted to the DTSC for review and approval prior to initiating assessment. The Final EIR must include a summary of all previous assessment work conducted by Chevron, the City of Whittier, Matrix Oil or any other entity since 1980. The summary must identify areas of known contamination as well as the nature and extent of the contamination. Soil and water samples must also be collected along the streambed to establish baseline conditions prior to any construction activities. These samples must be analyzed for volatile organic compounds, semi-volatile organic compounds, metals, and pesticides. The results of this sampling will not be used to establish cleanup criteria, however, which should be set at natural background levels pursuant to the Water Quality Objectives as presented in the LARWQCB Basin Plan or any other entity since 1980. The summary must identify areas of known contamination as well as the nature and extent of the contamination. Soil and water samples must also be collected along the streambed to establish baseline conditions prior to any construction activities. These samples must be analyzed for volatile organic compounds, semi-volatile organic compounds, metals, and pesticides. The results of this sampling will not be used to establish cleanup criteria, however, which should be set at natural background levels pursuant to the Water Quality Objectives as presented in the LARWQCB Basin Plan[2], rather than the baseline levels. MartinezA-34

The mitigation measure also states that "Contaminated soils shall be completely excavated and the contaminated areas cleaned to LARWQCB specifications before moving forward with construction of the proposed Project components." Excavation and any other cleanup activities must be proposed to and approved by either the LARWQCB or DTSC and must be conducted in a manner that eliminates fugitive dust and odor exposures to the community. Noise, traffic, biological and other impacts must be minimized or eliminated. Public notice of any remedial efforts must be provided to City residents for review and comments.

GR-5a-d

Any removal of uncertified fill material is proposed to mitigation against geotechnical failure. This may only be conducted on areas that were included in the environmental site assessment described in section SR-3 and should be conducted with the same level of care to eliminate any MartinezA-35

[2] Water Quality Control Plan, Los Angeles Region, LARWQCB. [http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/basin_plan/electronics_documents/bp3_water_quality_objectives.pdf]

negative impacts within the preserve and the surrounding community. If any of the uncertified fill material is found to be contaminated, excavation must be conducted under a workplan described in section SR-3.

GR-10a-d
Because of the sensitive environment surrounding the oil project area, all pipelines should have secondary containment with interstitial liquid monitors. MartinezA-36

N-1a,b, N-2a-b, N-4
These mitigation measures are inadequate to mitigate the impact from noise to insignificant levels. Significant and Unavoidable noise impacts are listed in Table ES-2, which include the same mitigation measures. The DEIR is self-contradictory by presenting the same noise impacts and mitigation measures in both Table ES-2 and ES-3. All noise impacts and the ineffective mitigation measures should be listed as Significant and Unavoidable. MartinezA-37

WR-1a through WR-4h
All of these mitigation measures must comply with LARWQCB storm water requirements and any cleanup-related activities must comply with remediation standard described in section SR-3. MartinezA-38

LU.1, LU.4, LU.5, LU.6
These impacts "could be incompatible with adjacent land use. The mitigation measures described here are insufficient to reduce these impacts to Insignificant. All noise impacts and the ineffective mitigation measures should be listed as Significant and Unavoidable. MartinezA-39

The following are general statements to specific section within the DEIR.

2.0 Project Description
The reference to seven acres being used for this oil project is misleading. A significantly larger area will be significantly impacted and will be restricted from public use due to the oil project. The actual size of the restricted area and impacted area should be clearly stated in the Final EIR. MartinezA-40

The City objective of generating a substantial income stream needs to be defined and acknowledged to be speculative. The City objectives that are unattainable, *i.e.* minimize environmental, noise, traffic, Core habitat, recreational use, should be noted on the list in section 2.1.1. MartinezA-41

The Matrix Oil objectives regarding minimizing impacts should also be called out as unattainable in this list. Maximizing royalty payments to the City is should be replaced with maximizing income to Matrix Oil and any other private interests currently involved in this project. MartinezA-42

To date none of the scientific evaluations (attached as appendices to the DEIR) have been completed by any local businesses. The DEIR itself was prepared by MRS of Ventura. The Traffic

Impact Study was prepared by Overland Traffic Conslutants of Santa Clarita. The Biological Report was prepared by Glenn Lukos of Lake Forest. The Cultural Resources Survey report was prepared by Applied Earthworks of Hemet. The Socioeconomic Evaluation was prepared by the San Diego office of AECOM. And the Soil Engineering and Geology Investigation was prepared by Heathcote Geotechnical of Ventura. Only one of these companies is in Los Angeles County and the nearest one is 30 miles away from Whittier in Orange County. Based on this information it is unclear how Matrix "provides opportunities" for local business and workers to participate in this project. MartinezA-43

Matrix must prepare a plan and set goals for hiring businesses and workers actually located within 25 miles of the site (with preference to Los Angeles County businesses). This not only provides actual stimulus to the local economy, it also increases knowledge among these businesses and workers of local environmental conditions, regulatory requirements, and social the social environment. MartinezA-44

Reports documenting the conduct and findings of the Chevron remediation program must be attached to the final EIR and made available on the City website immediately for public review. This report establishes a baseline of environmental conditions before Matrix proceeds with the oil project. An understanding of the current conditions is necessary for the City and other interested parties to make informed decisions about the potential impact of construction activities and oil production operations at the site and in the surrounding community. MartinezA-45

Please explain if the mineral rights afforded to Matrix though the City lease allow extraction of oil, gas, and water that is beneath private property, including homes, that are outside of the surface boundaries of the parcels described herein. If not, the EIR should specify a horizontal limit that wells cannot be drilled beyond to guarantee that oil extraction is only occurring under the Native Habitat and to minimize subsidence at the private property caused by oil, gas, and water extraction activities. MartinezA-46

Currently, activity has been extended to various survey assessments and other preliminary activities related to the oil project. These activities should be listed, chronologically and the results of these activities should be presented in the DEIR. MartinezA-47

Another common activity has been area tours of the drill site, which is inaccessible to the general public. Many of these tours are lead by a City of Whittier Councilmember and are provided only to arbitrarily selected organizations, excluding the general public and any representatives of Whittier Hills Oil Watch. MartinezA-48

Gas and crude oil pipelines should be constructed before the test wells are drilled, to eliminate the impacts from the flare which would be operated in the preserve and from the oil tankers that would have to drive through the preserve and the surrounding neighborhoods during the MartinezA-49

initial pumping stages.

Drilling mud basins must be designed to contain 200% of the anticipated volume to account for any unanticipated accidents that could cause the accumulation of other liquids within the basin. The location of the basin must also be shown in the Final EIR. How the basin will be managed during drilling and dismantled after drilling is completed must be described in full in the final EIR. A detailed list of the ingredients of the new and used drilling fluids must be presented in the final EIR. MartinezA-50

Reporting standards need to be included in the section on Drilling Site Spill Containment. MartinezA-51

Although the materials listed may be included in the drilling fluid, and although the drilling fluid may be considered non-hazardous, it should be noted that the fluid and certain components thereof are toxic and must be handled carefully. MartinezA-52

The same level of detail that was provided for the Gas Plant should be provided for the Oil Processing Plant this section of the Final EIR. MartinezA-53

This should be revised to provide a truer representation f the vehicle traffic load of multiple oil project alternatives. The timelines should also provide estimates for each alternative. MartinezA-54

Cumulative Projects

The DEIR fails to describe the effects which would be "cumulatively considerable" or to describe the bases for concluding that the incremental effect is not cumulatively considerable as required by Section 15130 of CEQA. MartinezA-55

Reference to prior environmental planning documentation must be made in the Final EIR. MartinezA-56

No analysis of the cumulative impacts of the relevant projects is provided in this DEIR and must be fully discussed in the Final EIR. MartinezA-57

Many of the projects listed probably pose a de minimus contribution to the cumulative impact, however, several, including Table 3-1 #3 and #7, Table 3-2 #4, #7, #8 and #9, and Table 3-4 #1 and the TRTP described in Section 3.2.1.8 do have significant impact and must be described in greater detail. The impact of the proposed San Gabriel Parks and Open Space Network alternative in the San Gabriel Watersheds and Mountains Special Resource Study should also be evaluated. To accomplish this in a meaningful way, the entire DEIR should be revised and resubmitted for public comment. MartinezA-58

Section 15126c of CEQA requires descriptions of all "irreversible damage that can result from environmental accidents associated with the project." Section 7.1 of the DEIR does not provide a description of the damage that could be cause by an accidental release of oil or other contaminants. Also, no details of the contents of the "emergency response plan" or expected staffing and equipment needs are provided. These items must be included, in detail, in the Final MartinezA-59

EIR, as well as the estimated costs for responding to small to catastrophic releases and the subsequent financial impact to the community resulting from the release and subsequent response actions.

Pursuant to CEQA, an EIR must identify feasible, "fully enforceable" mitigation measures that can be enacted to reduce or otherwise moderate the significant effects that would otherwise result from the project. (PRC Section 21081b) The City should present a draft of the Mitigation Monitoring and Reporting Plan for both the proposed project and the recommended alternative in the final EIR. The MMRP must specify how various mitigation measures are monitored, what the compliance standards will be, who will enforce the measures, and general penalties for failing to achieve the standards. In cases where the City itself is subject to the mitigation measures, an independent enforcement agency must be identified. MartinezA-60

4.1 Air Quality

Table 4.1-1 presents meteorological data that are not representative of the project site. The average temperature presented is clearly too low. All modeling that includes meteorological data must be checked and confirmed to have been based on site-specific data from a similar environmental setting as the project site. MartinezA-61

4.8 Hydrology and Water Resources

The following comments relate to the mitigation measures summary beginning on page 4.8-8:

WR-2a

The following "permanent" erosion and sediment control measures are temporary as they require significant monitoring and maintenance to provide significant benefit.

- *Use mulches and hydroseed to protect exposed soils;*
- *Use geotextiles and mats to stabilize soils;*

If applied incorrectly, hydroseeding, could contribute to increased sediment loading. MartinezA-62

Specific permanent erosion control measures outlined in the CSQABMP Handbook should be cited for this project. Some of the alternatives are inappropriate for this project.

WR-2b

Specific "best management practices and monitoring" actions are not cited. Various practices and alternative monitoring plans could be inappropriate for this project. The details should be selected and provided for public review and comment. MartinezA-63

WR-2c

The drainage plan must be provided for public review and comment.

The mitigation measures WR-2a to 2c are vaguely described and lack specificity. The effectiveness of the unspecified mitigation measures cannot be evaluated based on the information provided in the DEIR. MartinezA-64

Jeff Adams
Whittier Hills Oil Project – Draft Environmental Impact Report
July 21, 2011

WR-4a
The specific type of impermeable membrane, how it will be installed and how it will be maintained should be described. MartinezA-65

WR-4c
The type of berm needs to be described as well as specific construction details (if built on a slope the minimum height needs to be adjusted appropriately. Also, the minimum containment volume needs to be specified. MartinezA-66

WR-4d
The containment and cleanup training that the workers will receive should be provided. This should include notification of appropriate regulatory agencies to provide oversight and confirmation of the cleanup actions. Completion of the cleanup should be evaluated by an independent agency (not the City) and the disposal should have approval. A report of each incident should be prepared by an environmental consultant and be made available to the public. Costs must be included in the reports. MartinezA-67

WR-4e
Spills should be contained and cleaned up according to oversight agency guidance. MartinezA-68

WR-4f
Contaminated soil should not be treated on-site without preparation of a site-specific and event-specific remedial action plan that is submitted for public comment. On-site treatment of soil should be avoided. Plans also need to include restoration of area that was contaminated, source and volume of replacement soil must be determined and the soil must be verified to be free of contaminants and similar in nature to the original soil. MartinezA-69

WR-4g
The holding tanks must be constructed and maintained prior to drilling and must be of sufficient volume to contain all water during a high rainfall event within the affected watershed. Water treatment on-site should not be allowed without site-specific RAP reviewed by oversight agency and subjected to public review and comment. MartinezA-70

WR-4h
The Oil Spill Contingency Plan should be prepared before any field work commences and must be made available for public review and comment.

Thank you for considering these comments in your review and revisions of the DEIR and preparation of the Final EIR. It should be clear that the DEIR is severely lacking in details that are important to the community and to decisions-makers for this project. Matrix Oil has publicly stated its desire to proceed with the Consolidated Central Project Alternative, however, this DEIR does not provide an adequate evaluation of this alternative. For this reason, the DEIR should be revised and re-circulated for public review and comment, or the project should be recognized as untenable and all work should be stopped. MartinezA-71

Jeff Adams
Whittier Hills Oil Project – Draft Environmental Impact Report
July 21, 2011

If you have any questions you may contact me at address below.

Sincerely,

Anthony Martinez
8130 Michigan Ave.
Whittier, CA 90602

Jeff Adams

From: Steve Mather [surferyogirockstar@gmail.com]
Sent: Thursday, July 21, 2011 8:11 AM
To: Jeff Adams
Subject: Oil Proposal

MatherS-1

My name is Steve Mather I am the homeowner and live at 8632 california ave, whittier 90605. I wish to go on record as opposing mineral extraction proposal in any part of the Whittier Hills. The people on the City Counsel were elected to preserve the wilderness preserve. In addition proposition A funds that purchased the open space were voted into law by the people.

Please just say no to corruption, abuse of power and involve the distrist attorney if necessary.

Jeff Adams

From: Kathyd1605@aol.com
Sent: Wednesday, July 20, 2011 1:47 PM
To: Jeff Adams
Subject: No on Whittier Oilfield Project

To: Jeff Adams, Planning Services Manager MayerskiA-1

I go for a "no" on this project for the following reasons:

We fought hard to protect the Whittier Hills for conservation, wildlife and recreation and to close these hills to all oil development in the future. Now so many of the same forces that fought for this purpose want to turn a portion of these hills into an oil field because of the lofty price for oil. This issue and Whittier were recently aired on ABC news. According to the ABC report, the proponents of drilling now believe we can have it both ways, that is, use the money for the conservation of the rest of the hills and help the city of Whittier in the future with a large revenue source.

While this aim may sound beneficial for all concerned, it may come at a big risk for Whittier and other open space land in Southern California. Over the years, other areas of Whittier Hills may be pumpjacked and other cities could lose some of their space and habitat, subverting the purpose of the bond measure that set aside 21,000 acres in Southern California for open space.

There are thousands of homes in the surrounding areas of Whittier that could be affected, not only by the fumes, traffic and noise from this all-in-one drilling site, but property values could also be adversely affected as they have in Baldwin Hills, another community that allowed renewed drilling.

If we don't protect the hills and open space now, when will we?

Alfred Mayerski
Enramada Ave.

Jeff Adams

From: Teresa Molina [terrymolina@earthlink.net]
Sent: Thursday, July 21, 2011 1:58 PM
To: Jeff Adams
Subject: DEIR

Hello Jeff, MolinaT-1

I have a question regarding my property value.

If the oil drilling project moves forward, either in the nature preserve or the Savage Canyon Landfill, the revised DEIR indicates that those of us whose homes are in close proximity to the oil drilling operation can expect an immediate drop in property values of 10%. That is not ok with me!!! I am a Realtor and I believe the decrease in property value would be significantly more than 10%.

If other real estate experts, like myself, believe that oil will depress the value of my home, and that it will take twice as long to sell my home, that becomes a huge problem for me. If my property value is negatively affected because of oil drilling, who is going to reimburse me for my losses? The City of Whittier for deciding to allow the oil drilling. If you would like to purchase my home at its value prior to the beginning of the oil drilling, I will entertain an offer! However, it is not fair for my home value to be depressed because the City of Whittier has decided to drill for oil.

Thank you!

Teresa Molina
7291 Canyon Crest Rd
Whittier, Ca 90602

July 21, 2011

RECEIVED
JUL 21 2011
PLANNING DEPT.

Mr. Jeffrey Adams;

EIR report has no reference as to how emmissions are to be controlled. This in turn will effect our health and will also effect the vegetation, trees and habitat.

MontanoG-1

Gus Montano
562/693-3074
North Friendly Hills

Jeff Adams

From: jon_myers1@verizon.net
Sent: Thursday, July 21, 2011 9:51 AM
To: Jeff Adams
Subject: Oil project public comment

To: Jeff Adams, Planning Services Manager, City of Whittier

From: Jon Myers Date: July 21, 2011

Re: WhittierMain Oilfield Development Project (habitat preserve drilling)

The consolidated central site is put forward by the DEIR as a better site than the original multi-sited proposal. Yet further inquiry could find yet a better, less invasive site to the habitat preserve.

The so called Upper Colima site, for example, would have several favorable attributes: MyersJ-1

1. It would be accessed from Colima Road, rather than through residential streets.
2. Being adjacent to Colima Road, faster access for emergency vehicles would be possible should there be a fire or other disastrous situation.
3. It would provide slant drilling access to both sides of Colima Road.
4. It would be on the edge of the habitat preserve, rather than in the heart of it.

MyersJ-2

It is mentioned in the DEIR that the Colima site would interfere with the animal tunnel. Couldn't the animal tunnel be relocated further north? And couldn't any affected trails be reconfigured?

Thank you for your attention.

Jon_myers1@verizon.net

To: Jeff Adam, Planning Services Manager, City of Whittier

From: Jon Myers Date: July 11, 2011 Jon Myers

Re: Whittier Main Oilfield Development Project (habitat preserve drilling)

1. Councilman Henderson insists that the project will take no more than 6.9 acres of the preserve; however, the Executive Summary, page ES4, lists the following:

a. Possible requirement for a fuel modification zone (fmz)	6.9 acres
b. Up to 8.5 acres temporarily disturbed during construction and grading	8.5 acres
c. Footprint of facilities	6.9 acres
d. Other	8.3 acres
Total impacted area for pads, roads, fmz, and temporary construction related disturbance per ES page 4	30.6 acres

MyersJ-1

2. Calculations of potential royalty income assuming $90 per barrel, and $80 per barrel oil at various production levels are attached; assuming Whittier could keep that revenue:

a. How would the City spend that revenue, year after year?
b. What benefits would a Whittier resident see?
c. How much of the royalties would likely be taken by the county, and/or the state?
d. Oil prices can vary in the extreme; how would the city budget for highly fluctuating revenues?

MyersJ-2

3. How will the public know if the necessary mitigating measures to reduce significant and unavoidable impacts to "less that significant" are being implemented and regularly practiced?

MyersJ-3

4. The DEIR language is very difficult to comprehend; for example, on page ES12, under Environmental Justice, is this sentence, "There are no significant and unavoidable impacts to environmental justice or impacts that are less than significant only with mitigation." The paragraph goes on to say that the less than significant impact does include a disproportionate impact on lower income population because of additional truck traffic on Penn Street. It seems to be no more than a judgment call if a significant and unavoidable impact is reduced to less than significant. It seems the impact is significant or not depending on what outcome is desired to please the pro oil side (the City council).

MyersJ-4

5. If the project is approved by the council, and all potential oil and gas deposits south of the earthquake fault will be exploited, when would there be oil and gas drilling under and east of Colima?

MyersJ-5

RECEIVED
JUL 1 1 2011
Community Development

6. Are there any personal benefits accruing to any City Council member or city executive from either Matrix Oil or Clayton Williams Energy, or entities controlled by them, now or in the future for giving a positive vote for granting a CUP to drill for oil and gas on the habitat preserve?

MyersJ-6

Proposition A Habitat Preserve Oil Project
Possible Whittier Revenue @ $90/Barrel with Increasing Assumed Production Levels

A	B	C	D	E	F	G	H	I	J	K
Assumed Price of Oil per Barrel	Assumed Barrels per Day	Assumed Days of Production during Month	Assumed Barrels per Month (Col. B x's Col. C)	Total Revenue per Month (Col. A x's Col. D)	Whittier's Royalty @ 30% (Col. E x's .30)	Additional $250,000 Increments Above Revenue of $1,500,000 per Month	Plus 1.25% for each Additional $250,000 per month over $1,500,000 Revenue per Month, Limit 20%	20% Limit on Additional $250,000 Increments	Total Whittier Revenue per Month (Column F + Lower of Columns H or I)	Total Whittier Royalty Revenue per Year (Col. J x's 12)
$90.00	100	20	2,000	$ 180,000	$ 54,000	-	$ -	36,000	$ 54,000	$ 648,000
90.00	250	20	5,000	450,000	135,000	-	-	90,000	135,000	1,620,000
90.00	500	20	10,000	900,000	270,000	-	-	180,000	270,000	3,240,000
90.00	580	20	11,602	1,044,216	313,265	-	-	208,843	313,265	3,759,178
90.00	700	20	14,000	1,260,000	378,000	-	-	252,000	378,000	4,536,000
90.00	1,000	20	20,000	1,800,000	540,000	1.20	3,125	360,000	543,125	6,517,500
90.00	1,500	20	30,000	2,700,000	810,000	4.80	31,250	540,000	841,250	10,095,000
90.00	2,000	20	40,000	3,600,000	1,080,000	8.40	112,500	720,000	1,192,500	14,310,000
90.00	2,500	20	50,000	4,500,000	1,350,000	12.00	243,750	900,000	1,593,750	19,125,000
90.00	3,000	20	60,000	5,400,000	1,620,000	15.60	375,000	1,080,000	1,995,000	23,940,000
90.00	3,500	20	70,000	6,300,000	1,890,000	19.20	593,750	1,260,000	2,483,750	29,805,000
90.00	4,000	20	80,000	7,200,000	2,160,000	22.80	790,625	1,440,000	2,950,625	35,407,500
90.00	4,500	20	90,000	8,100,000	2,430,000	26.40	1,096,875	1,620,000	3,526,875	42,322,500
90.00	5,000	20	100,000	9,000,000	2,700,000	30.00	1,453,125	1,800,000	4,153,125	49,837,500
90.00	5,500	20	110,000	9,900,000	2,970,000	33.60	1,753,125	1,980,000	4,723,125	56,677,500
90.00	6,000	20	120,000	10,800,000	3,240,000	37.20	2,196,875	2,160,000	5,400,000	64,800,000
90.00	6,500	20	130,000	11,700,000	3,510,000	40.80	2,562,500	2,340,000	5,850,000	70,200,000
90.00	7,000	20	140,000	12,600,000	3,780,000	44.40	3,093,750	2,520,000	6,300,000	75,600,000
90.00	7,500	20	150,000	13,500,000	4,050,000	48.00	3,675,000	2,700,000	6,750,000	81,000,000
90.00	8,000	20	160,000	14,400,000	4,320,000	51.60	4,143,750	2,880,000	7,200,000	86,400,000
90.00	8,500	20	170,000	15,300,000	4,590,000	55.20	4,812,500	3,060,000	7,650,000	91,800,000
90.00	9,000	20	180,000	16,200,000	4,860,000	58.80	5,346,875	3,240,000	8,100,000	97,200,000
90.00	9,500	20	190,000	17,100,000	5,130,000	62.40	6,103,125	3,420,000	8,550,000	102,600,000
90.00	10,000	20	200,000	18,000,000	5,400,000	66.00	6,909,375	3,600,000	9,000,000	108,000,000

Proposition A Habitat Preserve Oil Project
Possible Whittier Revenue @ $80/Barrel with Increasing Assumed Production Levels

A	B	C	D	E	F	G	H	I	J	K
Assumed Price of Oil per Barrel	Assumed Barrels per Day	Assumed Days of Production during Month	Assumed Barrels per Month (Col. B x's Col. C)	Total Revenue per Month (Col. A x's Col. D)	Whittier's Royalty @ 30% (Col. E x's .30)	Additional $250,000 Increments Above Revenue of $1,500,000 per Month	Plus 1.25% for each Additional $250,000 per month over $1,500,000 Revenue per Month, Limit 20%	20% Limit on Additional $250,000 Increments	Total Whittier Revenue per Month (Column F + Lower of Columns H or I)	Total Whittier Royalty Revenue per Year (Col. J x's 12)
$80.00	100	20	2,000	$ 160,000	$ 48,000	-	$ -	32,000	$ 48,000	$ 576,000
$80.00	250	20	5,000	400,000	120,000	-	-	80,000	120,000	1,440,000
$80.00	500	20	10,000	800,000	240,000	-	-	160,000	240,000	2,880,000
$80.00	580	20	11,602	928,192	278,458	-	-	185,638	278,458	3,341,491
$80.00	700	20	14,000	1,120,000	336,000	-	-	224,000	336,000	4,032,000
$80.00	1,000	20	20,000	1,600,000	480,000	-	-	320,000	480,000	5,760,000
$80.00	1,500	20	30,000	2,400,000	720,000	3.60	18,750	480,000	738,750	8,865,000
$80.00	2,000	20	40,000	3,200,000	960,000	6.80	65,625	640,000	1,025,625	12,307,500
$80.00	2,500	20	50,000	4,000,000	1,200,000	10.00	171,875	800,000	1,371,875	16,462,500
$80.00	3,000	20	60,000	4,800,000	1,440,000	13.20	284,375	960,000	1,724,375	20,692,500
$80.00	3,500	20	70,000	5,600,000	1,680,000	16.40	425,000	1,120,000	2,105,000	25,260,000
$80.00	4,000	20	80,000	6,400,000	1,920,000	19.60	593,750	1,280,000	2,513,750	30,165,000
$80.00	4,500	20	90,000	7,200,000	2,160,000	22.80	790,625	1,440,000	2,950,625	35,407,500
$80.00	5,000	20	100,000	8,000,000	2,400,000	26.00	1,096,875	1,600,000	3,496,875	41,962,500
$80.00	5,500	20	110,000	8,800,000	2,640,000	29.20	1,359,375	1,760,000	3,999,375	47,992,500
$80.00	6,000	20	120,000	9,600,000	2,880,000	32.40	1,650,000	1,920,000	4,530,000	54,360,000
$80.00	6,500	20	130,000	10,400,000	3,120,000	35.60	1,968,750	2,080,000	5,088,750	61,065,000
$80.00	7,000	20	140,000	11,200,000	3,360,000	38.80	2,315,625	2,240,000	5,600,000	67,200,000
$80.00	7,500	20	150,000	12,000,000	3,600,000	42.00	2,821,875	2,400,000	6,000,000	72,000,000
$80.00	8,000	20	160,000	12,800,000	3,840,000	45.20	3,234,375	2,560,000	6,400,000	76,800,000
$80.00	8,500	20	170,000	13,600,000	4,080,000	48.40	3,675,000	2,720,000	6,800,000	81,600,000
$80.00	9,000	20	180,000	14,400,000	4,320,000	51.60	4,143,750	2,880,000	7,200,000	86,400,000
$80.00	9,500	20	190,000	15,200,000	4,560,000	54.80	4,640,625	3,040,000	7,600,000	91,200,000
$80.00	10,000	20	200,000	16,000,000	4,800,000	58.00	5,346,875	3,200,000	8,000,000	96,000,000

RECEIVED
JUL 1 1 2011
Community Development

July 11, 2011

Jeff Adams, Community Development Department

City of Whittier

13230 Penn Street

Whittier, CA 90602

Dear Mr. Adams:

Please accept my following concerns, questions and comments based on my reading and understanding of the June 2011 Draft EIR for the City of Whittier Mineral Extraction Project.

1. **Executive Summary Page ES-1** does not reference the other Lessee to the Whittier Main 2008 Mineral Extraction Oil, Gas and Mineral Lease, as amended, under the Project Objectives, Purpose and Need. Clayton Williams Energy Inc. which represents 75% of the Lessee is not referenced while Matrix Oil Corporation which holds 25% of the lessee rights is listed. This is a concerning omission encompassing this entire DEIR document. Without reference to the majority Lessee party, it is difficult to determine the roles, responsibilities and ultimately the responsible entity for this entire document for adequate review and comment for the public process. **There is no listing of the objectives for this project by Clayton Williams Energy, Inc.** MyersS-1

2. **Executive Summary Page ES-1 under Matrix Objectives.** There is an undefined and unlisted reference to "other state of the art techniques" after "utilizing current, slant drill or high angle well" technology" in the first bullet point. What is of significant concern is that the DEIR process, unless argued in the courts, does not limit or ultimately restrict the project to work that has not been vetted through this public process. As you may know, there have been repeated questions from the Whittier public concerning "fracking" and if this will be part of the technology used by Clayton Williams Energy and Matrix Oil in Whittier. The response to this question when asked by an audience member to Marine Research Specialists (MRS) on May 5, 2011, at the public DEIR informational meeting, was that "fracking" was not mentioned by the applicant so therefore not included in the DEIR review as one such response to this question. **So, for the record, this resident would like a legally binding response from the City of Whittier that "fracking" will never be used in Whittier or adjacent properties.** MyesrS-2

3. **Executive Summary Page ES-4:** The "total impacted area associated with pads, roads, FMZ, and construction related temporarily disturbed areas would be 30.6 acres." This is significantly MyesrS-3

greater than what the City Council members have indicated after public comments have been made raising questions about the true scope of the Mineral Extraction Project made at the city council meetings.

4. **Executive Summary Page ES-16 Table ES-1: This DEIR has not included a Executive Summary review of the a) Noise: drilling vibration to residences and b) Noise: simultaneous drilling and operations noise impacts to sensitive receptors for summary of Impacts for Proposed Projects Versus Alternatives.** Noise and Vibration are significant measures for humans (residents and recreational users of the trails and Preserve) as well as animal and plant life impacted by any of the proposals. Note that these two measures were included in the November 2010 DEIR so am concerned why the City omitted these for the June 2011 DEIR as these are relevant measures when reviewing the project plans. There is a reference on page ES-18 about noise levels at the Loop Trail Road which cites, "Noise levels for recreational users would increase by more than the 5 dBA threshold and would be considered a significant and unavoidable impact" so this measurement criteria for the overall review of alternatives including No Project Alternative is important to have for inclusion. On page 4.5-23, "construction noise could exceed County thresholds for construction along Colima road within the County of Los Angeles.", is also mentioned in the DEIR so the absence of these two important measures for review and comparison is very concerning for residents of Whittier. MyersS-4

5. **Executive Summary Table ES-3, Impact N.3.** is missing from this Table from Section 4.5 Noise and Vibration page 4.5-37. There is a reference to "Project activities could increase ground vibration and create annoyance for humans", but there is no review for animals and plant life being impacted by vibrations. MyersS-5

6. **Table 4.5-9 Noise Level at Receptors –Proposed Project Test Drilling Well Pad – No mitigation** – there is no measurement provided for the Proposed Project access to Penn Street. Need to have for review. MyersS-6

7. **Noise and Vibration Page 4.5-32** – this page describes the variability of impact related to barrier blanket size range and density per pounds per square feet for mitigation. The assumptions listed related to noise mitigation levels do not list what size or density of barrier blanket is needed to quote the listed mitigations. Without this specific definition, there is no way to manage this compliance if the project were to proceed. The thickness and size of the blankets are not included but they should be cited. MyersS-7

8. **Table 4.5-10 Noise Level at Receptors – Proposed Project Drilling Mitigated** – again there is no measurement listed for Penn Street which is a problem because there is no ability to review and compare. MyesrS-8

9. **Page 4.5 -20** The City of Whittier General Plan does not specify a noise level for Preserve-type areas, so the "neighborhood parks category was used to define the limit for the Preserve areas (see page 4.5-20 under 4.5.2.5 Significance Criteria - Significance Criteria Rationale, Paragraph 2".

   See page 4.5-14 Section: Noise and Table 4.5.6 Exterior Noise Standards for Los Angeles County. Source Los Angeles County Code, section 12.08.390, subsection A – "The residential uses in the vicinity of the site are in Noise Zone II (residential properties), as defined by the County Code. From discussion with the Los Angeles County Department of Public Health, it is understood that urban parks are generally considered to be in Noise Zone III (Cartegena 2007). However, the Preserve may be considered a "noise-sensitive area", although the Code typically designates those as schools and day care centers. " Table 4.5.6 lists "Noise-sensitive area" as Noise Zone I; which is below both Zone II Residential Properties and Zone III Commercial Properties (LACPH Dept say's that urban parks are Zone III; see above). MyersS-9

   This DEIR is using a Noise Level designation for measurement that is both higher than "noise sensitive area" and "residential property" for measuring the impacts of the three Proposed Project Sites as defined by the Los Angeles County Code since the City of Whittier General Plan does not define a noise level for Preserve areas. The comparisons used in the DEIR are not reasonable or accurate for measuring impact due to Noise. All Mitigation Measures for N-2a, N-2b, N-2c, and N.4 should be based on Noise Sensitive Area Noise Zone I for the Preserve Area and Noise Zone II for residences within any proposed or actual construction, drilling or operations areas to be valid for consideration and decision making.

10. **Page 4.5-37** - as mentioned above as well, there is no reference to impact on animals and plants for project activities related to ground vibration other than to humans. MyesrS-10

11. **Table 4.5-12 Noise Level at Receptors – Proposed Project Operations – No Mitigation** – again there is no reference listed for measurement for Penn Street impact. MyersS-11

12. **Table 4.5-13 Noise Level at Receptors – Proposed Project Operations Mitigated** – again there is no reference listed for measurement for Penn Street impact. MyersS-12

13. **Table 4.5-14 Noise Level at Receptors – Concurrent Operations and Drilling Mitigated** – again there is no reference listed for measurement for Penn Street impact. MyesrS-13

14. **Table 4.5.5 Mitigation Monitoring Plan**, see Compliance Verification: the City of Whittier is listed as the responsible party for Compliance Verification for Mitigation Measure N-1a, N-1b, N-1c, N-2a, N-2b, N-2c, and N-4 (NOTE – N-3 is not listed and is missing on this table).

There is no description of personnel involved, financial impact, and operational impact for the City of Whittier to be the responsible party for compliance verification. Much of the work described in the individual Mitigation Measure as listed above involves specific knowledge and industry experience to truly be able to measure, monitor, report and ultimately manage the list of requirements as documented in the DEIR. These responsibilities would include geology, structural engineering, chemical engineering, architectural, civil engineering, and environmental engineering type of industry knowledge and experience needed for the ongoing management of the construction, drilling and operations related to an oil and gas drilling project. MyesrS-14 MyersS-14

How is the City going to staff this work, what is the department that will be responsible for this, what is the proposed budget and FTE count, inclusive of salary and benefit costs, and how with the Community get specific reporting on the measurement and compliance with these requirements and with what frequency? What are the proposed penalties inclusive of fines and time period to cure?

Thank you.

Sincerely,

Shelly Myers, MPA

5819 Newlin Ave.

Whittier, CA 90601

To: Jeffery S. Adams, Community Development Department, City of Whittier
12232 Penn St., Whittier, CA 90602

From: Grace Nakamura and Yoshio Nakamura
8562 Catalina Ave., Whittier, CA 90605-1103

Subject: Whittier New Oil Project Proposal Comments

Concerning:! DRAFT EIR on proposed New Oil Project

Let us please inform you about our presence in Whittier. We purchased land and built a home here in 1956. So we were here when Chevron was still active, and we were receiving modest checks as property owners with mineral rights. It was not all rosy as some, who were not here at that time, would like you to believe.

Our streets became pot holed and rutted by the heavy equipment hauled on very large transport type trucks up and down Catalina Ave. At nights they made a great deal of noise, emitted a lot of fumes, rattled our house and disturbed our and our children's. sleep. The toxins and pollutants from the machinery and vehicles plus the other unmitigated pollutants in the air which are stated in the EIR were very much present. Reading the EIR on line made the whole ugly scenario of "Oil Drilling" very disturbing. The pollution level was far in excess of AQMD standards and on many days there were alerts. Our children's health was adversely compromised. Our little boy almost died when he was grasping for air and a doctor was summoned in the middle of thel night. The doctor attributed his severe difficulty in breathing to air laden with pollutants. Asthma is on the increase exponentially now, and it makes us shudder to think of how many children in our community will suffer if drilling and its attendant problems are resumed in our community. NakamuraGY-1

NakamuraGY-2

The DRAFT EIR references 4.3, (Safety, Risk of Upset, and Hazardous Materials) that there is a probability of numerous ruptures and other hazards. We were witnesses to a very big rupture of pipe breakage of oil at the intersection of Catalina Ave. and Second Street back in the Chevron days. There must have been a very high PSI and volume of pressurized oil because when the pipe ruptured, it sent through the manhole a gusher that was very high. The manhole cover was found some distance away, and what a mess all that oil spillage was! We were told he shut off valve malfunctioned. Oil covered the area.

Sometime after Chevron had ceased its operations, we were able to walk through their property. The ground was black with oil spillage and the smell remained. In Sycamore Canyon today, the oil smell is very noxious. Perhaps it is an example of what to expect in the Whittier Hills. Another frightening and dangerous seismic problem is that the drilling operations are in close proximity to the Whittier Fault. The DRAFT EIR mentions in the DRILLING ACTIVITIES 2-38, 2-42, 2, 3,3.1 reports that there is a probability that in the process of drilling there could be breakage and leakage of toxic materials which NakamuraGY-3

could contaminate our water sources, the soil and the toxic contaminants in the pools created for the waste water would evaporate the toxins into the air we breath. There are 24 specific CONTAMINANTS AND TOXINS named.

Even in the Chevron Days some of these toxins were noticeable when our eyes would sting from the acrid air and the sickening obvious stench of sulfurous noxious chemicals permeated the air we breathed.

We are even more concerned NOW at the prospect of drilling for oil and gas because the former Administration deregulated the standards for emissions as well as safety. PAHs are on the given list of TOXINS, and in addition to being highly carcinogenic, they are one of the primary causes of the warming of our environment. BILL MCKIBBEN, PhD AND LEADING AUTHORITY ON GLOBAL WARMING, WAS AN ON-SITE VISITING PROFESSOR AT WHITTIER COLLEGE ON FRIDAY, NOV. 15, 2010. WHEN HE WAS ASKED, "WHAT SHOULD BE DONE ABOUT RESUMING OIL DRILLING IN THE WHITTIER HILLS?" DR. MCKIBBEN RESPONDED, "LEAVE THE OIL IN THE GROUND!" You can verify his credentials by reading his more than 18 published books, numerous articles, and visit his website: Bill@350.org. What's the significance of 350? He and a host of scientists have determined that 350 parts per million of hydrocarbons in the atmosphere is the maximum that our planet can take. We are NOW at 390 parts per million and in a perilous condition.

NakamuraGY-4

Investigative journalist, David Brancaccio, on KCET's NOW program, provided a series on drinking water contamination in communities across the United States being told that it would be "safe" to proceed with oil and gas drilling. In wells, running water from kitchen faucets and wherever people drank water from city or town sources, a match could ignite the water. In some communities it was so hazardous that water had to be trucked in. David Bracaccio's series ran in 2009. On 60 MINUTES in November, 2010, was shown a similar scenario and again communities were faced with contaminated drinking waters.Their feature was called "DRILLING FOR GAS". ON KCET's new program, NEED TO KNOW, replacing Broncaccio' s NOW, was aired 9 P.M. on Friday night, Dec. 3, 2010 and showed Chesapeake Energy Co. and Halliburton Oil's drilling in other U.S.A. cities. They promised them huge revenues and no impacts on their lives. The result, more victims without potable water.Their drinking water could also be burned. The environmental pollution was attributed to the lowering and deregulating of Oil and Gas standards by the previous Administration.

Other reports of contamination have surfaced more recently to give us dramatic warnings of the dangers of drilling for oil and/or gas, fracking, as well as pipe lines that have broken to ruin acquafers, streams, rivers, land and the ocean. There is enough evidence now that if we do not reduce carbon emissions, our most valuable property, the earth itself, will become a much more difficult place in which we living creatures can remain alive.

After careful reading of the Whittier DRAFT EIR, listening to arguments Pro and Con regarding the drilling for oil and gas, attending ALL PUBLIC MEETINGS, and our own past experiences with oil drilling, we have concluded that Oil and Gas Drilling in the Whittier Hills Nature Preserve would not be a wise decision for the present and future generations. The NO PROJECT ALTERNATIVE is our choice.

=

From: Theresa Oliver [theresajoliver@me.com]
Sent: Thursday, July 21, 2011 11:57 PM
To: Jeff Adams
Cc: Theresa Oliver
Subject: Whittier/Matrix Oil/Mineral Drilling Plan

Hello Councilman Adams,

I am a new resident to Whittier and I would like to write to you regarding the proposed drilling plans for our community. I am firmly against this drilling plan because I believe this will negatively impact our neighborhoods in Whittier. I have a family and I am very concerned about the trucks transporting oil, gases and other hazardous and toxic chemicals this project may do to my community. Part of the appeal that made me and my family relocate to this peaceful town is it's beauty and quiet atmosphere. I believe the oil drilling will hurt our nationally recognized Habitat Preserve, it will be hazardous to the wildlife. Not to mention with the real estate crisis this will drop our property value and we plan to stay in Whittier for a long time to come. Please let me know how you plan to reserve Whittier and maintain our property values?

Oliver T-1

Oliver T-2

Oliver T-3

Concerned resident,

Theresa Oliver
(925) 628-9141
6031 Altmark Ave.
Whittier, CA 90601
theresajoliver@me.com

Jeff Adams

From: pamandcats@aol.com
Sent: Thursday, July 21, 2011 11:23 AM
To: Jeff Adams
Subject: Oil Drilling

pamandcats-1

I feel like a little tiny voice saying, "NO OIL DRILLING!" Someone is bound to line their pockets with money AGAIN, as they did with the great design for a "CAR ROW" on Whittier Blvd.

I hope that my one tiny voice will become a chorus that you can hear.....NO DRILLING! Let's preserve what is left of our hills.

Bob Henderson has been bought out!

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Joe Papaian

Address: 13319 Reis st

City, St., Zip: Whittier Co 90605

Phone #: 562-693-6319

Email:

COMMENTS:

I am agisnst The oil Drilling, because It will distroy our hills and Cause Pullution and Ruin our wild Lift and nature. PapainJ-1

RECEIVED
JUL 11 2011
Community Development

Jeff Adams

From: JACK PEREZ [streetfightingman@verizon.net]
Sent: Wednesday, July 20, 2011 11:39 AM
To: Jeff Adams
Subject: Whittier/Matrix Oil/ Mineral Drilling Plan

Mr Jeff Adams,

I'm writing this letter to show my OPPOSITION to the Whittier/Matrix Oil/ Mineral Drilling Plan. I live on 13746 Penn Street and I currently have to deal with the excessive noise from the landfill traffic... not to mention the lack of parking on Penn Street to accommodate this traffic. PerezJ-1

I have some major concerns in regards to the drilling plan:

First my health, I don't want to be exposed to hazardous and toxic chemicals by breathing in these gas and or fumes that this drilling will expose us residents to. What about the exposure to the the children that frequent Penn Park & Whittier College... not to mention us the residents? PerezJ-2

Secondly the traffic, We currently have major traffic problems with the land fill trucks. The exhaust fumes that they emit into the air are a concern and all the noise they create from all the up & down commute on Penn Street that we the residents have to put up with. I strongly oppose new Oil traffic! PerezJ-3

Third my property value, What happens to that? My property value has already suffered because of the housing market... and from the looks of it I can expect my property value on Penn to depreciate drastically if this Oil project heads forward. I purchased my home on Penn Street with the hopes of raising a family here some day, but now I'm having second thoughts... even about living in Whittier! PerezJ-4

I hope that we do what is best for the residents on Penn Street and the city of Whittier as a whole...

A really concerned resident,
Jack Perez
13746 Penn Street.

7/20/11

July 21, 2011 - Jeff Adams - Planning Services Mgr.

The proposed Project would be involved in significant impacts to Whittier

PoochigianG-1 ① Air Quality - would exceed the South Coast Air Quality Mgt. Dist.

~~② No significant unavoidable impacts to any biological resources.~~

~~③ No significant unavoidable impact from Seiche, Risk of upset, and hazardous~~

PoochigianG-2 ④ THE DRILLING WOULD INCREASE greenhouse gas emissions

PoochigianG-3 ⑤ Drilling Rig would degrade Rubio View areas

PoochigianG-4 ⑥ Leak ~~of~~ at oil drilling site, or any pipeline leak would ruin surface and groundwater quality.

PoochigianG-5 ⑦ views of rigs and any land use adj. to land use would be incompatible

PoochigianG-6 ⑧ Any drilling would create odor smell to the areas of Whittier beyond the ~~odor~~ drilling site.

PoochigianG-7 ⑨ Any drilling would give off toxic materials to areas all over Whittier

PoochigianG-8 ⑩ Any grading + vegetation clearing would affect the sensitive wildlife species in the Habitat area.

PoochigianG-9 ⑪ Riparian Habitat, federally protected Aegretta source would be destroyed and increased noise levels stops would be to the area.

PoochigianG-10 ⑫ The project would interfere with Movement of "nature residents" in the migratory wildlife corridors.

PoochigianG-11 ⑬ Project would conflict with local ordinances

protecting biological resources — like trees —

PoochigianG-12 (14) Any seismically ground shaking could result in loss of property, risk to human health and safety —

PoochigianG-13 (15) Water in soil with the danger to the infrastructure, could result to property loss in areas —

PoochigianG-14 (16) Corrosion of pipe lines could bring about a burst of oil spill — San Bruno.

PoochigianG-15 (17) Construction making would increase noise levels — as well as operational levels of risks.

PoochigianG-16 (18) The nite time glare and lighting of project can be a nuisance to the neighbors.

PoochigianG-17 (19) Operations of the entire Whittier Oil Field would increase the traffic levels

PoochigianG-18 (20) Construction of pipe line along the streets can impact all neighborhoods

PoochigianG-19 (21) Site grading and drainage could set up runoff problems, flooding, water quality.

PoochigianG-20 (22) Impacts to historical resources, well pads, roadways and landscape due to grounds disturbances.

PoochigianG-21 (23) Disturbing of human remains of found stops all further work to be done until the remains are evaluated —

PoochigianG-22 (24) All waste water must be accounted for as to its eventual where to go to creeks and drainages

PoochigianG-23 (25) Future oil fields development activities could increase risks of wild fires —

GEORGE POOCHIGIAN
5440 ADELE AVE.
WHITTIER, CA. 90601

Laura Prelesnik

13802 Penn St.

Whittier CA 90602

RE: EIR Whittier Main Oilfield Development Project

As a resident of Whittier I am very concerned about some missing information in the Draft EIR.

PrelesnikL-1

1) I am concerned that the Penn St neighborhood was not actually tested for noise. All estimates were made based on models. These models could be found to be inaccurate. The Draft EIR states "Penn Street has substantially less traffic than Mar Vista or Colima Road, but has a higher percentage of trucks as Penn Street is the access route for the Savage Canyon Landfill. FHWA noise modeling estimates that current noise levels along Penn Street are 63 dBA CNEL at 50 feet from the roadway centerline. SoundPlan modeling along Penn Street estimates a peak hour noise level during the daytime of 67 dBA near Painter Ave. and about 65 dBA near Penn Park". Because no sampling was actually conducted on Penn St. it will be difficult in the future to complain that the noise on the street has increased.

PrelesnikL-2

2) Additionally, the FHWA noise model found that street traffic noise is around 67 dBA on Penn St. This is higher than the Table 4.5.6 Exterior Noise Standards for Los Angeles County which says it should be around 60 dBA.

PrelesnikL-3

3) **The DEIR states that** storing and transporting crude oil presents hazards due to crude oil tank fires and environmental hazards due to crude oil spills. An upset condition from the proposed Project operations that subsequently releases hazardous materials at the facilities could adversely impact public safety or environmental resources in the study area. Potentially affected study areas include: Residences along Ocean View Avenue, Davista Drive, Catalina Avenue, San Lucas Drive, Lodosa Drive, Penn Street, and surrounding area streets. Although the report lists the neighborhoods that may be effected it does not give a plan of action for what might occur if a spill were to occur in these neighborhoods. Also, a specific risk profile was not conducted for residents of Penn St. as was done for residents of other streets as listed in the tables of the DEIR. The report should include information regarding a risk profile for residents of Penn St.

PrelesnikL-4

4) **Penn St. is the longest route through the preserve for the trucks to access the oil drilling site. I don't believe that the report accurately explains why this route is considered the most environmentally friendly alternative. Based on my calculations from Google earth, trucks entering through Penn St would drive 1.7 miles each way through the preserve to reach the oil facility. This is an additional 3.4 miles per truck per trip. If you estimate that trucks will take 72 trips per day for facility construction, that equals 3.4 extra miles driven per day inside the preserve which equals 61,200 miles driven in the Whittier hills for just one phase of the project. The second phase estimates at least 386 truck trips per day! The project is listed as having 9 phases that will continue for 70 years. If operations continue for 70years as listed in the DEIR, that is an additional 4 million 222 thousand 800 miles that vehicles will drive through the supposed Habitat Preserve by using the Penn St access. How is that in the best interest of Whittier residents and the preserve? The reason the garbage trucks use Penn St is because it is**

located closest to the landfill. The oil trucks should use a road that is located closest to the oil wells!

PrelesnikL-5

5) The traffic study that occurred on Penn St. was not representative of actual traffic. The study was conducted when Whittier College was in session but on break before exams. The selection of this date could possibly impact the LOS A rating that was given to the intersection. The study should be redone on a day that better reflects street usage.

PrelesnikL-6

6) Perhaps the most egregious oversight of the entire document occurs in the traffic section with Mitigation Measures: 4.7-23. See underlined section (7) below. How is it possible if Phase 2 estimates 396 truck trips/day that (7) can be a mitigation measure? Of course the proposed Project truck traffic will increase truck traffic levels on Penn St! Additionally the DEIR does not address whether Penn St. will be widened or the Penn St. trees cut down.

Implement a Penn Street Traffic Program, in coordination with the City, evaluating: (1) Traffic levels and periods of heavy traffic along Penn Street: (2) Longer-term traffic monitoring to capture events and variation in traffic flow due to student populations and event traffic; (3) Construction truck traffic impacts on roadway capacity due to parking limitations and event activities; (4) Coordination with Whittier College to reduce impacts of events and parking issues along Penn Street; (5) Alternative parking locations and routes for Whittier College events; (6) Implementing safety improvements, including enhanced pedestrian crosswalks and signage; (7) Identifying sources of landfill traffic and ensuring the proposed Project truck traffic does not increase truck traffic levels on Penn Street; (8) Limited hours for proposed Project truck traffic on Penn Street to avoid congested or impacted periods (e.g., limit truck traffic to periods when the landfill is open); (9) Coordinate periods of heavy traffic flow on Penn Street due to events and prevent use of Penn Street for proposed Project-related construction truck traffic during these events.

PrelesnikL-7

7) I am concerned that all the additional industrial traffic on Penn St. will contribute additional asthma inducing toxins into the environment surrounding our homes. The DEIR does not state that the city will be monitoring the levels of pollutants around our homes, although monitoring will occur around the oil drilling site. Additional monitoring sites should be added along Penn St.

PrelesnikL-8

8) The DEIR fails to adequately address how the addition of 396 truck trips/day will affect home values along Penn St.

Sincerely,

Laura Prelesnik

WHITTIER MAIN OIL FIELD PUBLIC MEETING

Reported by: Arcy M. Dropulic, CSR No. 13394

HAHN & BOWERSOCK 800-660-3187 FAX 714-662-1398
151 KALMUS DRIVE, SUITE L1 COSTA MESA, CA 92626

WHITTIER MAIN OIL FIELD PUBLIC COMMENTS

COMMENTS BY NORMA WILLIAMSON
13143 Palm Place, Cerritos, California 90703
Telephone: 562-926-9193

WilliamsonN-1

We see ourselves as tourists of Whittier. Since we don't live here, we come to Whittier for its cultural events, its restaurants, its wonderful historical ambience, and we feel that drilling oil wells in the Whittier Hills is going to ruin that whole ambience of Whittier. And so we're very much against it for hurting the nature preserve for the wildlife. We feel that there's not enough open spaces for city people to enjoy the beauty of nature. And so this is the one little spot where city people can go to relax and go out with their family and get some exercise and enjoy the open views.

So we're also concerned about the environmental impact. We're very much against hydraulic fracturing, very concerned about the chemicals, the thousands of chemicals that are pumped into the ground to pull out, basically, energy resources that we don't need. And the reason I say this is because my husband and I and my entire family of four, we have lived in an all solar home for ten years. We have not paid a single dime for

WilliamsonN-2

electricity in ten years. We drive a hundred percent electric vehicle, not a hybrid. So we haven't paid a penny for gasoline. We also have waste veggie oil diesel, and the fuel is absolutely free from restaurants. So if individuals like us can use clean green energy, we don't understand why the city of Whittier can't commit itself to clean green energy.

And I have with me this magazine. It says engerG. And the edition is September/October 2010 edition. And it talks about Chicago's 10 MW brownfield. It's a city solar project. And what this means is the city of Chicago is constructing solar power plants on their empty vacant city lots that are costing taxpayers money because they're just sitting there not bringing in revenue. So the city of Chicago is earning money by partnering with the utilities and providing clean electricity for its city businesses and residences.

So we think if the city of Whittier needs extra revenue, they should be following the example of Chicago in developing solar power plants on their brownfields, empty vacant lots. Thank you very much.

///
///
///
///

COMMENTS BY KATHERINE JONES
13834 Penn Street, Whittier, California 90602
Telephone: 562-698-4332

I consider Penn Street as an access road for oil trucks a dangerous road. It's a safety issue, a parking issue, traffic issue, and Penn Street is inundated with the garbage trucks for the dump, the Whittier Dump, and the parking for the park, Penn Park, and parking for the college activities. There have been times when I've had to park my own car on the street in order to have room for a guest to park their car to come visit me. JonesK-1

We only have parking on one side of the street from 8:00 to 5:00, and so the parking is a big issue and the narrowness of the road on lower Penn is just a big safety issue and the families that live there and the children living in those houses.

So I don't know who would consider Penn Street, but that seems to be the road that's being considered for the trucks now.

///
///
///
///
///

COMMENTS BY JANET FATTAHI
14320 East Oak Street, Whittier, California 90605
Telephone: 562-696-8576

I'm opposed to drilling in the Whittier Hills because it causes a lot of environmental damage. The previous oil company didn't clean up what they had there, and there's no reason to expect that another oil company will do any better. One of the current practices for oil FattahiJ-1

companies is cracking where they insert water into the ground, displacing the oil so it comes up, and that leaves polluted ground water, which can reach our sinks and faucets. Seems like there's no reason to drill in the hills. They were purchased in order to preserve their beauty and their environment so we can use them as recreation, and it makes a terrible impact on the environment. FattahiJ-2

COMMENTS BY ABI FATTAHI
14320 East Oak Street, Whittier, California 90605
Telephone: 562-696-8576

One thing I'm really kind of puzzled about is the format of this meeting. I don't understand why they don't have an open discussion so the people can discuss this and

FattahiA-1

we can hear other people's views. Seems like there's an element of secrecy here. I don't like that. But I also agree with all that she said about the environmental impact.

COMMENTS BY STEVE MATHER
8632 California Avenue, Whittier, California 90605
Telephone: 562-360-2654

MatherS-1

I've been a homeowner for 30 years. I live one mile from the proposed oil site. I voted in all elections since I've been able to vote. I voted for you, Mr. Henderson, because of your campaign to protect our hills. I'm very proud of you and all of the council members for putting the Greenway Trail, but I'm really concerned that I cannot ride my bicycle or walk my dog in the preserve. Yet somehow it's okay to drill oil or it's even being considered.

I'm skeptical and concerned, so I attended the EIR meeting where I was assured by the presenter that no decisions have been made and that the EIR would be reviewed and voted on by the city council. The Whittier Daily News published an article on 7/8/11, this year, in regards to City Manager Steve Helvey's e-mail of 9/7/10 to Bob Henderson with CCs to Matrix Oil and their

6

lobbyists, profiling neighborhood oil opposition which suggests that Helvey is operating under Councilman Henderson's direction. I'm disappointed and outraged by these actions. I find it unethical and immoral and even perhaps illegal.

In closing, I believe you betrayed our trust, Mr. Henderson. I would suggest an independent investigation, and I call for your immediate resignation, as well as Mr. Helvey's. Thank you for listening.

COMMENTS BY LORRY KENNEDY
8632 California Avenue, Whittier, California 90605
Telephone: 562-309-1872

KennedyL-1

I'm new to Whittier. Moved here from Hawaii a year and a half ago. So I appreciate the natural beauty this city has to offer. I love the tree-lined streets and variety of architecture. When hearing about the proposed drilling, I reserved judgment until I heard more about the project. I attended city council meetings and discussions. However, now I feel it's time to speak out. There is no reason why drilling should be considered. It seems the citizens are opposed to drilling and most of you are elected to preserve the hills that would become home to this endeavor.

7

When walking the streets here, I see pride of ownership on every block. Your job is to protect the interests of these city people who live, pay taxes and put their trust in you. I don't see how they would be served by having an oil site anywhere within the city, let alone in the middle of a nature preserve that is currently off limits to the traffic.

Mr. Henderson, among others, was elected to his position to protect the hills. Yet now seems to be leading the march to oil. The fact that he serves on the Habitat Preservation Authority and on the Whittier City Council has to be a conflict. In one recent article, Mr. Henderson cited the dwindling habitat funds as a threat to the preserve and the inability to get more than 1.2 percent interest on its funding. Yet the Friendly Hills Bank, of which he is a large shareholder, offers two percent for walk-in personal CDs. That leads me to believe funding the habitat is not at the top of the to-do list.

Oil drilling in Whittier threatens air quality, clean water supply, manageable traffic, noise levels and property values. Changes in these day-to-day elements of living threaten quality of life and health.

During one city council meeting I attended, there was some debate as to whether the drilling would exceed

8

seven acres. To my mind, seven acres is too much. One acre is too much. And the burden of proof that this is a project that would benefit the people of Whittier lies not on the people who oppose it, but on the city council.

COMMENTS BY DANIEL CASADO
13807 Penn Street, Whittier, California 90602
Telephone: 562-686-1717

CasadoD-1

My statement is about home properties. I want to know who is going to keep track of the home properties prior to the drilling and through the period of drilling. I want to know who is going to keep track of the home value and the surrounding values and the devaluation of the homes. I live on Penn Street. That's where all the trucks are going to be driving through. I want to know who is physically going to keep track of that and who is going to comp us when we sell our homes at a devaluation, devaluated market price.

Home properties are definitely going to drop especially with the amount of traffic that's going to be increased on Penn Street especially after the two-year period when supposedly there's going to be 400 truck trips a day, which is 200 trucks up and down twice a day. The value of the homes on Penn Street is going to definitely

9

devaluate, and don't tell me otherwise. And I want to know -- I want somebody to call me and tell me who is going to keep track of my home value in comparison to the surrounding homes in Whittier. And if my home devaluates in price because of the oil drilling, I want to know who is going to pay me that difference.

COMMENTS BY LAURA PRELESNIK
13802 Penn Street, Whittier, California
Telephone: 310-367-6232

PrelesnikL-1 So my first concern with the Draft Environmental Impact Report is that the Penn Street neighborhood was not actually tested for noise. All the estimates in the report were made based on models. These models could be found to be inaccurate. The report analyzed many other street locations and should have included an analysis of noise on Penn Street.

PrelesnikL-2 Also, for a noise mitigation measure, the report says that they should identify sources of landfill traffic and ensure that the proposed project truck traffic does not increase truck traffic levels on Penn Street. However, the report also says that there are going to be 396 truck trips per day on Penn Street. So that mitigation measure is in direct conflict with what the

report already states because truck trips on Penn Street are going to increase significantly. So that is not actually a mitigation measure and should be removed from the list of mitigation measures.

PrelesnikL-3 Also, the report says to help with noise and congestion, that the city should limit hours for proposed project truck traffic on Penn Street. However, the report doesn't detail what those hours would be. And as the report currently states, the trucks could be returning 24 hours a day. So that's a concern.

PrelesnikL-4 Additionally, we have concerns about the safety risk and upset of hazardous materials. Residents, specifically along Penn Street, are called out in the report as being in danger of suffering from a release of hazardous materials from the crude oil trucks. So we're very concerned about the crude oil trucks used on the street as well as the garbage trucks. And we're also concerned because a risk profile was not conducted for residents of Penn Street, although risk profiles were conducted for residences located closer to the oil drill site.

PrelesnikL-5 Also, we're concerned because the Penn Street access and the north access road is actually the longest route for the trucks to drive through the preserve to access the oil drilling site, and we don't believe that

this is in the best interest of the preserve, to have the trucks take the 2.6 mile route through the preserve when they can access it within 500 feet from Catalina Avenue.

PrelesnikL-6 Regarding traffic on Penn Street, we have concerns that the truck counts that occurred in May of 2011 at the intersection of Penn and Painter were done at a time when Whittier College was in break between the ending of classes and before exams. We believe that this could possibly impact the Los A rating that was given to Penn Street in the report. This should be done again when Whittier College is actually in session so that the traffic associated with the college can be correctly quantified.

PrelesnikL-7 And in general, we are a young family. We have two children, and we're concerned about the increased pollution that the 396 trucks are going to generate on our street. And we also have concerns that the report does

PrelesnikL-8 not detail the future plans for Penn Street, including whether or not the street will be widened and the mature pine trees will be cut down. So we would like the report to include more information about future plans for this if there is expansion of Penn Street to accommodate the oil truck traffic.

///

///

COMMENTS BY MARTA BORBON
5228 Glennon Drive, Whittier, California 90601
Telephone: 562-692-8441

BorbonM-1 I just want to state that the environmentally superior alternative is not superior in any way. The mitigations that are not significant are nothing but a joke and would be significant to any intelligent person. The defects in this project should be clearly a reason for the city council to reject this project completely. However, it appears that the city council is going to continue pushing a project that the city of Whittier does not want. Over 60,000 signatures have been gathered, and still the city council continues with the efforts to ruin the Whittier Hills.

BorbonM-2 It is clear that the city council members had their minds made up on the issue of oil in the hills well before the DEIR came out. There are many problems with the new DEIR. One of them is that the area affected is going to be 30.6 acres as per the DEIR when, in fact, the whole time Mr. Henderson kept on talking about 15 or 16.

There are some significant and unavoidable impacts mentioned. Quotation marks, "The proposed project would generate potentially significant environmental impact in air quality, biological resources, safety, risk

and upset of hazardous materials, geology, noise aesthetics, traffic, hydrology and water resources, land use, fire protection and recreation," end of quotation.

This is in the DEIR. Quotation marks again, "Significant and unavoidable impact would remain in air quality, aesthetics, hydrology, land use and recreation." End of quotes. This is found in ES-7.

How does allowing drilling protect the Whittier citizens? It doesn't. Regarding air quality, it poses significant and unavoidable impact to air quality that would occur during construction activities as emissions would exceed the South Coast Air Quality Management District's significant thresholds. How is my family going to be protected from poor air quality? BorbonM-3

Aesthetics. Regarding aesthetics, the DEIR says that significant and unavoidable impact will occur during the project. How is this acceptable in a natural preserve? BorbonM-4

Regarding hydrology and water resources, the DEIR notes significant and unavoidable impacts to surface and ground water quality occurring from a rupture or leak of crude oil from drilling, operations from pipelines or other infrastructure. What would be the plan after we've had water contamination? BorbonM-5

Land use. Regarding land use, the DEIR notes a

significant and unavoidable impact to land use and policy consistency including views of project-related equipment such as the drilling rig. How is this okay in a natural preserve? How is this possible next to people's homes?

The DEIR states, quotation marks, "Impact to land use and policy consistency analysis that are less than significant with mitigation include nighttime lighting and glare, increased noise, emission and order levels and conflict with adopted land use plans, policies, ordinances for planning efforts," end of quotations. That's in ES-11. How is this acceptable? How is nighttime light, glare, noise, smell, how is that acceptable as it's imposed on the Whittier citizens? BorbonM-6

Regarding recreation, the DEIR states significant and unavoidable impact due to an adverse effect on recreational view sheds due to drilling and operations. This is found in ES-11. Isn't recreation an important part of life for Whittier residents? All these are the significant and unavoidable impact. It seems insurmountable for Whittier residents. Whittier residents are clearly not taken into account as these plans are being made. BorbonM-7

Other less-than-significant impacts also appear in the DEIR. These less-than-significant impacts would be considered enormous to any intelligent person. The DEIR

downplays the possibility of oil or natural gas explosions, fire, spill or leak.

So I ask, what does the city council have planned in case of a fire? We recently had a fire, and we were very lucky that it got contained so easily, but what would happen in an environment such as the dry Whittier Hills? What would be the plan? BorbonM-8

Regarding biological resources, these are also downplayed as the impacts are categorized as less than significant. BorbonM-9

Regarding bird life, we are assured that chainsaws will not be used to cut down trees. They will only be pushed over by heavy equipment. How is pushing over trees at all caring about the animal life and the hills? BorbonM-10

Regarding geological resources, again, there were no significant or unavoidable impacts. How can crude oil pouring into the environmental be considered less than significant? And in the area of environmental justice, the DEIR states also that there are no significant and unavoidable impacts. BorbonM-11 BorbonM-12

Why haven't the people on Penn Street been taken into account? Are they not significant? These people already have a problem with traffic that is much more than they can deal with. They have the Whittier College BorbonM-13

events, the trash dump trucks and now the plan for this oil drilling. Why haven't the Penn Street citizens been taken into account and heard? Clearly, these citizens are against this plan.

It is my opinion that the city council has dollar signs in their eyes and does not want to admit that the city of Whittier is against this project. With 6,000 signatures against the project and the number rising week by week, shouldn't citizens be heard? The city council is here to serve the citizens, not the oil company. Thank you very much.

COMMENTS BY ROY McKEE
8110 Davista Drive, Whittier, California
Telephone: 562-693-8008

I would first like to go on the record as being opposed to the oil project. It poses many environmental health and financial risks to our citizens and the City. I will be speaking about transportation and construction of this project. This term of fair share contributions indicates we, the taxpayers, will be paying for Bob Henderson's pet project to keep his Habitat Authority. I'm opposed to using taxpayer money for any part of this project. McKeeR-1

McKeeR-2 McKeeR-3 McKeeR-4 McKeeR-5

Calculations as scenarios are best guesses. The transportation segment of the DEIR is loaded with best guesses. It does not take into account people's changing of driving patterns, which will create gridlock in order to avoid road closures and large, slow-moving equipment. It talks about plans, but never says what those plans are.

Who will be enforcing the five-minute idling regulation, ignition regulations for both on- and off-road equipment and dust regulations? These are all AQMD regs. Do the citizens call AQMD to shut the project down for these violations?

Based on the DEIR's own numbers for Phase 2, there will be equipment entering and leaving the project area every 1.5 minutes. This occurs during an 11-hour period. That will seriously impact conditions forcing traffic to divert through neighborhoods that would not normally see that kind of traffic.

The DEIR comments about road repair running oversized and weight equipment over roads rated for 6,000 pounds will destroy those roads in less than 30 days. Patching the roads is not a repair. Successful repairs can only be made when the road is completely overhauled, which would require its closing, which would not be conducive to the truck traffic generated by the project. Who will pay for the damage to citizens' car suspension

McKeeR-6 McKeeR-7

and alignments due to damaged roads from the equipment going in and out of the project?

After hours. Nothing addresses the service trucks that come in during evening hours with engine-powered air compressors and generators making noise and shining lights to all hours of the morning while repairing and lubing the equipment for the next day.

Export dirt. My guess is at least two thirds of the exported dirt will be sold in truck drop property going in all directions from the oil site. Who gets the money for the dirt being sold? All streets profiled for this project will affect about one third of our community's traffic. We need to stop this lunacy now.

CERTIFICATION
OF
CERTIFIED SHORTHAND REPORTER

I, the undersigned, a Certified Shorthand Reporter of the State of California do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were placed under oath; that a verbatim record of the proceedings was made by me using machine shorthand which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further certify that I am neither financially interested in the action nor a relative or employee of any attorney of any of the parties.

IN WITNESS WHEREOF, I have this date subscribed my name:

Dated: July 14, 2011

Certificate Number: 13394

WHITTIER MAIN OIL FIELD PUBLIC COMMENTS

July 11, 2011, 6:00 p.m.

Parnell Park Community Facility

15390 Lambert Road, Whittier, California 90602

HAHN & BOWERSOCK 800-660-3187 FAX 714-662-1398
151 KALMUS DRIVE, SUITE L1 COSTA MESA, CA 92626

COMMENTS BY ALAN WILLIAMSON:
13243 Palm Place, Cerritos, California 90703
E-mail: alan.action.now@gmail.com

PHWIlliamsonA-1

I have a concern that there might be underground water fracking going on and it isn't talked about very much. It isn't brought up because it's a normal process in drilling for oil. And underground fracking causes a problem in the water table and I'm downstream from their water table up here. So I don't want their pollutants that they're processing in the method of getting oil out of the ground to be coming downstream to where we live in our area. Because this fracking process is not a proven technology. It's being used a lot more in the last ten years and not too many people know about it. So I think it's important that it be considered in the light of the -- in the light of not wanting people to drill underground.

They've put out there as much possible energy as they can get and so they're going after natural gas and oil in the process of getting oil usually, so I'm concerned if that has to be considered. Plus, I'm real concerned about the impact that it's going to have on Whittier – the city of Whittier in relationship to the kind of lifestyle that they're developing in their old

town/downtown. The development of the old town has been very resourceful. It's a good resource for Whittier. And one of the reasons that I come to Whittier is so I can go to an old town. And if they start having a lot of industry going on in the area, I'm concerned that maybe old town won't be old town anymore.

COMMENTS BY PETER FISCHER:
P.O. Box 5737, Whittier, California 90606
Phone number: (562)818-8764

Okay. I'm a retired professor of geologic sciences from Northridge. I worked for Shell for ten years prior to Northridge and I consulted for Shell and Exxon regarding their fault activity for drilling sites, which is very similar to this. It's a dry-land situation, it's very similar.

Okay. Basically what I'm going say on the written will be pretty much like this: The draft EIR specifies that the earthquake would be about a 7.2 on the Whittier fault. It doesn't specify what the earthquake would be on the blind thrust, which underlies the Whittier hills; however, that fault is responsible for the Whittier earthquake in 1987, which generated something under a 6,

PHFischerP-1

probably a 5.9 earthquake, rather small, but its vertical acceleration was over 1g. Which means that with all that destruction in Whittier, that was a fairly minor one. In the EIR they're specifying the earthquake magnitude pretty accurately. But what they're not defining accurately is what the vertical and upward acceleration might be, which is likely to be over 1g. The last three earthquakes in California, including the Whittier earthquake, San Fernando, Northridge, where I worked, were all well over 1g upward. Which would be enough to destroy the facilities that they're putting in if they don't design for it. If they build it to the underestimate, what's in the EIR, that will be enough to destroy it -- not all, but many of the facilities that will be built. And injuring and killing people.

Now, our particular branch of science in seismology and active fault analysis and so forth is not perfect. All we have to do is look at the Whittier earthquake of March 11th. They anticipated an earthquake of about seven-and-a-half magnitude, probably a little under that. What they got was a magnitude 9 earthquake, which is the fourth largest earthquake that's been recorded since earthquakes were recorded on the instruments, about 50, 60 years' worth now. So basically the Japanese are ahead of us in the science of earthquakes.

They have more of them, they are better prepared, they have warning systems that we don't yet. They have more earthquakes; therefore, they have studied them more than we have. Larger also.

And to make it worse, they have early warning systems for earthquakes that are far in excess of anything we have. We hope to have them, but we don't yet. So they can have a warning and they can stop their bullet trains and they can stop many other things in time, which they did, before the earthquake wave hit them and destroyed them and killed more people. Here we have none of that, yet. And I don't think we will for at least over a decade.

So the design for an earthquake that's less in strength and upward force than might be logically anticipated is crazy. Not crazy, but certainly overly optimistic. And the responsibility for those fatalities or anything that happens in that kind of earthquake should be the responsibility for the City of Whittier directly. And that's all I have to say. And they can't be sued, so they're safe.

///
///
///
///

COMMENTS BY FAITH FISCHER:
P.O. Box 5737, Whittier, California 90606
Phone number: (562)818-8764

PHFischerF-1

I'm completely opposed to oil drilling in Whittier hills. I think it's a perversion of what the land use was intended for, a natural habitat. And specifically I want to read a letter that was composed by my husband, if I may do that. It's Peter J. Fischer, Ph.D., professor emeritus of geological sciences, CSU Northridge and Friendly Hills property owner.

"The pipelines to carry gas and oil produced by the oil company will require one day of construction for every 50 feet of pipeline" -- or, you know, approximately 12 to 18 months. "The pipelines will run along the western southbound lane of Colima Road" -- that's right above our house, by the way -- "from Lodosa Road down to Whittier Boulevard and continuing down to Lambert.

"The installation will require the use of jackhammers, as well as trenching and welding. The construction of these pipelines will be accompanied by all-day noise, dust, dirt, diesel fumes and horrific traffic congestion along eastern Mar Vista and Colima. Southbound Colima will be reduced to one lane for

PHFischerF-2

traffic, as the lane to the west will be inoperable due to pipeline construction. For all those property owners needing to exit or enter your driveways on Colima for a period of time, good luck." He's saying for businesses.

PHFischerF-3

"Our new president of the Friendly Hills homeowners' association was quoted in the Whittier Daily News as saying, 'Oil drilling will have no direct impact on Friendly Hills property owners.' I do not agree with this assessment. Winds will carry the dust, dirt and fumes blowing dominantly to the south and west over all the homes along Colima.

"In the event of a rare, yet possible, pipeline leak or rupture, the flames from the resulting explosion would most certainly have a direct impact on our homes. Yes, this is a rare occurrence, but it does happen. In San Bruno, Northern California, such a pipeline failure wiped out an entire block. More recently, an oil pipeline rupture in Montana resulted in 42,000 gallons of oil leaking into the Yellowstone River. Homes were forced to be evacuated and at least one home sustained damage."

After he wrote this there was another what they call "failure of a pipeline" in Huntington Beach. And I went on the Internet and I saw 29 pipeline failures in California just in 2010 and 2011. So it's not as rare

PHFischerF-4

as people would like you to think.

"In the event of any kind of accident or disaster, during or after the Colima pipeline construction, to our homes, cars or involving personal injury, who is legally liable? It would be wise to check your homeowners' policies."

I saw a picture on the Internet of one of the pipelines being carried to the place where they wanted it to go and it fell off and crushed a car. I mean, there's all kinds of hazards that can happen during this massive operation that they plan to do. So I am massively opposed to it. That's it.

COMMENTS BY YOSHIO NAKAMURA:
8562 Catalina Avenue, Whittier, California 90605
Phone number: (562) 693-6102
E-mail: yg.nakamura@verizon.net

Today, I'll just comment on the newspaper article that came out of the Whittier Daily News on Saturday, July 2nd, regarding Mr. Luis Perez's presentation at an informational meeting for the public regarding the new EIR. He presented the view of the new draft that has been circulating and is being discussed now. And in it

PHNakamuraY-1

he, himself, has said that there are some dangers of environmental impact, dangers to the aquifers, the spillage of oil into water. That's what he talked about. And when they "environmental," that means the quality of the air, which would be very hard to mitigate because it will be very bad. Which would be bad for human beings and for wildlife and the total environment.

So when I read that, it confirms what I have -- feel to be a very serious matter. And that this -- I would commend the City for trying to find new revenue, this is a very important thing. But for the short-term advantages of additional income for services for city residents, I would like to have the City seriously consider the long-term negative impact of this oil drilling project.

And the disadvantages, meaning there are dangers for the environment. The disruption of traffic. There's a danger in the early stages, according to what I have read, the trucks, the equipment which will be running in residential areas, and particularly I'm concerned about anything that would run on Catalina Avenue or Oceanview Avenue, which are very busy streets for our children in the elementary school at Oceanview and at the East Whittier Middle School. The heavy

PHNakamuraY-2

equipment, noise, dust and air pollution, would not be

PHNakamuraY-3

compatible with the well-being of our children. It would also not be good for the well-being of adults who have to breathe that also.

Next, what I would like to say is that the risks are too great for us to continue on this road of oil drilling. My recommendation is that we don't have oil drilling. Keep the oil in the ground, that's the safest place to have it. And that is, environmentally, probably the very best solution.

PHNakamuraY-4

I plan to write a response by e-mail as well.

COMMENTS BY GRACE NAKAMURA:
8562 Catalina Avenue, Whittier, California 90605
Phone number: (562) 693-6102

And I've submitted written reports before, but I have not submitted anything in writing for this period of comment. I came the last time and did all that stuff, but for this time, you know, I just read about the notice so I came. But I do want to express some very real concerns that I have that are very long-standing.

The number one concern -- well, one of the concerns I have, there was a concern when they were drilling for

PHNakamuraG-1

10

oil in the Whittier hills before is that they did flaring, which they intend to do again. That really polluted the air a very great deal. It was a very big deal, it was very heavy with pollutants. And they did it under the cover of darkness, but you could see the red flares. They did it in Sante Fe Springs too. So it really was terrible.

Our son became very, very sick. He was -- all the time that they did that -- were doing that, he was ill with very, very bad asthma. In fact, one time he even died, the doctor pronounced him dead. And when the doctor did come in the middle of the night, he said, Well, this air is terrible. He just couldn't believe it. He said, What's go on here? And it was because of that flaring. So that's an environmental concern.

PHNakamuraG-2

Another thing is they trucked -- they did all the preliminary drilling and trucking of the excavation equipment on these big, flatbed trucks. And all that preliminary type of preparation is going to take place and they propose they will go on on Catalina Avenue down to Whittier Boulevard.

Now, there are two schools there and there's always traffic congestion. I don't know whether they're going to do it at nighttime when the children aren't there. But that's terrible too, because it's so noisy and the

11

PHNakamuraG-3

house shakes. In fact, every resident on the street has cracks from all that moving of the heavy equipment. The streets are covered with potholes and a lot of noise all night long. So that's another thing that's going to be bad.

Another thing that they're doing is that it's not only Matrix Oil, but behind Matrix Oil is a big oil company in Midland, Texas, Clayton Williams. Clayton Williams Company, it's a big company in Midland, Texas. They're the big players behind all of this and we don't know it. The Petroleum Institute will do all kinds of hideous things.

There have been studies that have been done and reports that have come out, PBS did a major study two years ago where Clayton Williams went and also Dick Cheney's company -- what's the name of that big company? They went into community after community and told them the water tables were safe, everything was going to be safe, no toxic chemicals would get into their water supply. That proved to be false because with the fracking method of drilling, there is breakage of the pipes, there is leakage, they are not well protected.

PHNakamuraG-4

They say they have layers and layers of concrete and reinforcements that -- they may do that, but it is not sufficient. There is breakage and there is leakage.

12

And community after community across the United States, when they have come in and done this fracking, the aquifers have been polluted. And many of these communities, the only water that is drinkable is trucked-in bottled water. And I'm afraid that's what's going happen to us too.

Another thing is in Baldwin hills there are studies that have now emerged from Baldwins hills that are the same as operations that are proposed for the Whittier hills. In the Baldwin hills area, L.A. County has statistics that has the number of people who have been affected now by cancers and other lung ailments caused by the polluted water, the polluted air and caused by this fracking procedure -- yeah, the fracking procedure and the -- you know, the general exploration in seeking oil and gas.

PHNakamuraG-5

So Baldwin hills -- if they start looking at the statistics -- and I have firsthand information from the statistician that's been working on that data for the Baldwin hills oil exploration project. The statistics L.A. County has gathered prove the cancer rates have gone up, the lung diseases have increased, cancers have increased, groundwaters have been contaminated and people are getting poisoned from the contaminated groundwater.

13

All of those statistics are now available. These are things that proven facts. There are statistics out there right now from that area. I think that we cannot be too cautious.

I also propose and think this should be done. If they carry on this operation to any extent, there has to be a multi billion-dollar trust fund to ameliorate all PHNakamuraG-6 the environmental and health problems that arise from it. There has to be a guaranteed million-dollar trust fund just like, you know, down in the Gulf. BP had to come up with a trust fund to take care of the environmental -- contamination, pollution and medical problems that arose. Also, economic problems and other problems, the deterioration -- you know, the property deterioration, the road deterioration, the air pollution, our groundwater, you know, contamination. There has to be a multi billion -- multimillion- or over billion-dollar trust fund established to take care of those mitigating factors.

They need to have that trust fund established as a guarantee to the residents of our area so if any of these things occur, there is a trust fund to take care of it financially.

They said that they would not do drilling, et cetera, at nighttime. Matrix Oil has said that. That PHNakamuraG-7

has not been the case. They are drilling 24/7 over there in -- over near Rose Hills over near there in Sycamore Canyon and they violated that promise too. So it's going to impact our area and the drilling should not take place at nighttime and disturb everyone's sleep. And they should not be letting out any of these pollutants under the cover of darkness. And all of these things need to be promised and monitored very closely.

PHNakamuraG-8 I'm really concerned about this because I know it's a very hazardous and it's going to really ruin our environment. It adds to global warming and -- that's another situation. We're on a very limited time frame of how long this planet is going to survive. Studies have already shown that the new Alaska pipeline in Sand/Shale (sic) -- that type of drilling has already contaminated the aquifers in a large body of land in the Alaska wilderness.

Also, in prime systems of existing areas the PHNakamuraG-9 aquifers have been contaminated. And if that is carried to fulfillment and this is just the same thing, the whole game is over as far as the survival of our planet. And that's serious. And this is going to add immensely to global warming. It's going to be another factor. And as long as we're seeking fossil fuels and not

looking for alternatives, our time clock -- our time clock is running out on this planet. So say that, okay.

COMMENTS BY PATRICIA YOSHIHARA:

8134 Davista Drive, Whittier, California 90602
Phone number: (562) 696-7982
E-mail: pybookmom@aol.com

My comments tonight reflect concerns for safety, risk of upset in hazardous materials, which are alleged less than significant impact in the new draft EIR. The new draft EIR downplays the possibility of any oil or natural gas explosion, fire, spill or leak.

As a resident in the local area, I have concerns because we have friends that live on the Honolulu Terrace area and were terrified in the 2005 accident where a death occurred and other workers were injured in an accident at the west Whittier drill sites.

As a concerned citizen, I wish to advocate for the Mar Vista School students. And these are the following questions I would have and concerns I have about the new draft EIR:

Point Number 1: With the school nearby, what added noise will occur as a result of the project while school

PHYoshiharaP-1

is in session, generally 8:00 a.m. to 3:00 p.m., Monday through Friday?

Point Number 2: What is the actual distance from the school that structures will be built? PHYoshiharaP-2

Point Number 3: How and how often will groundwater and air purity be tested? PHYoshiharaP-3

Point Number 4: There is wildlife in the preserve next to the school; will this project scare the deer and other wildlife that the children currently enjoy seeing? Is there a chance of dangerous wildlife, such as rattlesnakes and mountain lions, showing up at the PHYoshiharaP-4 school because of disrupted habitats?

Point Number 5: We read about projects like this that can give off toxins both in the air and in the ground; how can we be assured that this will not happen in a way that can affect the students and the staff at the school? PHYoshiharaP-5

Point Number 6: There are many reports of strong odors around projects like this; how can we be assured that those odors will not be present to adversely impact our students and staff members? PHYoshiharaP-6

Point Number 7: There are medically fragile students at the school campus. Is there any additional risk to students who are already medically at risk? PHYoshiharaP-7

Point Number 8: What, if any, increased traffic

PHYoshiharaP-8
will occur around the school if this project is approved?

PHYoshiharaP-9
Point Number 9: What are the chances of an explosion at this site? If an explosion occurs, are the students and staff in any danger? Can there be any guarantee that the school district will not be held liable in case of any explosion, fire or any type of mishap occurring as a result this project?

PHYoshiharaP-10
Point Number 10: What are the chances of a fire at the site? What controls will be present to keep our schools safe if a fire were to occur?

PHYoshiharaP-11
Point Number 11: What if there is a break in pipes after an earthquake or any other reason causing rupture? What precautions are being taken?

PHYoshiharaP-12
Point Number 12: What is the size of the pipe that will carry the oil out of the site? The same for pipes for natural gas. Where will they originate and what is the ultimate destination point?

PHYoshiharaP-13
Point Number 13: How long do you expect the drilling project to continue, if approved? Number of years, number of months. Ballpark figure, please.

PHYoshiharaP-14
And the last one is: What is the City's insurance liability maximum concerning this project as it relates to students and staff at Mar Vista Elementary School?

///

dealing with any type of leak and how those leaks would be identified in a timely manner.

PHGarciaA-3
As far as traffic, the proposed project will bring trucks up with the rigs up through Penn Street. There will be many residents on Penn Street that would be affected. The college is also on Penn Street. It seems unfeasible for that route to be the route chosen to transport materials for this project. I understand that the citizens on Penn Street have organized and are attempting to seek an alternate route. I feel this will be wise.

It seems to me that the city council has been irresponsible in being forthright with how this oil project is being planned and developed. It seems during the council meetings that the city council has made up its mind in moving forward. An example of this is when anti-oil proponents speak, they are given their three minutes and asked to stop. Consistently. Nevertheless, when a pro-oil advocate speaks, I have seen many times the time extended. It seems to me to the city council is not -- or some in the city council are not being fair in listening to their constituents.

It's my hope that the city council would reconsider and instead of continuing to invest in a flawed plan, would instead invest in those that put them in office.

COMMENTS BY ALFONSO GARCIA:
5228 Glennon Drive, Whittier, California 90601
E-mail: alfnz@aol.com

PHGarciaA-1
My name is Alfonso Garcia, I reside in Whittier. I've been a resident of Whittier for over 35 years and I am against the proposed oil project that is being proposed here in Whittier for many reason. Some of those reasons that are being commented on within the new EIR would be air quality. I understand that the air quality during construction and even after, during operation of the oil rigs, will extend past the legal limits; nevertheless, this project is being moved forward. I believe that the air quality in Whittier is something that we need to care for and not be careless, for the sake of our children and the future.

PHGarciaA-2
Water resources and hydrology is another issue. The EIR says that there is risk of contaminating our water -- our groundwater supply during drilling or during a rupture after the oil is being pumped. I feel this is irresponsible.

I would like to know what plans the City has to deal with water that has been tainted with oil or other chemicals and how the City is planning on protecting its citizens. I'd like to know how the City is planning on

That they would invest in the future of our children -- in the safety of our future and the safety of our children and abandon this project, looking for more proactive and modern methods of bringing income into our city.

COMMENTS BY LORENA MUNOZ:
14271 Linda Vista Drive, Whittier, California 90602

I just want to say that our family is opposed to the project. Our family is opposed to the oil drilling project for the following reasons:

PHMunozL-1
The land was purchased under the proposition so that no future oil drilling would take place. I feel it's a misappropriation of funds and misleading the residents.

PHMunozL-2
If you feel so strongly, council, about the oil drilling project, put it up for the residents to vote on it. I feel it will contaminate the environment. It's the loss of land for the wildlife. It's a critical corridor for wildlife and miscellaneous species. Leave the land as open space as it was intended to be. Preserve the wildlife.

Noise. The noise cannot be mitigated by the walls

PHMunozL-3

being proposed. The valley creates a natural tunnel for noise. Since I'm a resident that lives a street below, I'm concerned about the noise and the vibration that could be caused by the oil drilling.

PHMunozL-4

I have a safety concern over the health and the development of my young child. What about natural gas like the San Bruno's? A whole residential neighborhood went up with the gas explosion. Is that what's going to happen to us? Is that what it will take for the project not to go through?

PHMunozL-5

What about the safety and the wellness of the children that's 150 yards away from the proposed project? How will the noise be mitigated during school hours? What if there is an explosion, how many children will die?

PHMunozL-6

My concern is also the contamination of the groundwater. What happens if the oil seeps into our drinking water? How often will it be tested?

PHMunozL-7

A big concern is the oil pipelines running through residential neighborhoods. What kind of insurance liability will the City have? Who can ensure for the safety of our children when children cannot go outside for fear of getting hit by big diesel trucks driving through our residential neighborhoods?

PHMunozL-8

The access road. No access through Penn. The

20 years ago when you passed the proposition.

COMMENTS BY TONI DONOVAN:
8414 La Cierra, Whittier, California 90605
Phone number: (562) 464-9433

I am mainly concerned about the significantly unavoidable impacts, which is -- I live right down the street from there. I'm on La Cierra and the next street is Catalina. I'm a few streets away from Catalina, the proposed road that -- you know, iffy. They say it's not going to be there and they're going to move it, but in the end once this passes, they can go back and change whatever they said to get the people to calm down and say it's not here. Do you know what I mean? So I'm really concerned about the air quality. Things that -- you cannot avoid that. The significant and unavoidable impacts to the air quality that would occur during the construction, the emissions of the greenhouse gases and everything that exceed the South Coast Air Quality Management District, their standards. PHDonovanT-1

I've got children, I've got, you know, people that have asthma. The only thing that would avoid any of this is not to do it. The impacts on it goes way beyond

PHMunozL-9

street is too narrow, it's a lower-income area. Is it because the majority of these residents do not have a voice? Who cares about the safety of those children and that heavily populated neighborhood with lots of young children who have no backyards, who resort to the front yard of their apartment building to play. How many children will be killed because they have no voice in this oil drilling project?

PHMunozL-10

Obstruction of view. My home was purchased in the Mar Vista Heights to get away from the oil drilling of Sante Fe Springs. I purchased it intentionally because of the view and because of the quietness of the neighborhood. Now, I will not have oil drilling in my backyard.

PHMunozL-11

Send Matrix to the abandoned oil company land that is owned by Powerine in Sante Fe Springs. City council has had many meetings behind closed doors so that residents are really afraid to speak up. As a resident, I really oppose the project. How could I as a resident go against a multi billion-dollar oil company with no funds? City council will retire soon, but it's us, the young residents that live in the neighborhoods and our children that will be left with the bad decisions of our greedy councilmen.

Leave the land as open space just as you intended

what the City is promising or thinking that they can get in return. PHDonovanT-2 I'm worried about the groundwater quality, PHDonovanT-3 the hazardous materials, everything that they're going to be bringing to the site, it's very close. And they also, I understand, want to take out one of the little islands right on Colima there to let the big trucks pass by. They were put there because of the speed of the cars and now they want to take it out to let the trucks in. The roads. Those are heavy, heavy trucks that PHDonovanT-4 corrode the roads. Who's going to pay for all that?

And mainly though, the open space was bought with our tax money that we voted for. We did not vote for this, we did not get a say-so on the oil project. We were able to vote, you know, that we wanted our tax PHDonovanT-5 money to go for the open space. We all agreed on that and now they're pulling that from under us and specifically, you know, taking it upon themselves to do the oil drilling there now. The proposed oil drilling. Underground, above, whatever they want to call it, it doesn't hide it just because, you know, you cover it and you don't see it. You think people don't see the air quality and the emissions and all of that. It's still going to go out, you don't have to see it for it to affect you.

I wish I could -- I left my paper that I had done

and I have to go pick up my son who's waiting for me, so unfortunately I cannot go any further, so I'll have to just leave it at that.

(Proceedings concluded at 7:30 p.m.)

CERTIFICATION
OF
CERTIFIED SHORTHAND REPORTER

I, STEPHANIE WILLIAMS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that a verbatim record of the proceedings was made by me using machine shorthand which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further declare that I am neither financially interested in the action nor a relative or employee of any attorney of any of the parties.

In witness whereof, I have this date subscribed my name Stephanie Williams.

Dated: July 15, 2011
Certificate Number 13482

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: FRANK RAMOS JR.
Address: 14417 BRONTE DR.
City, St., Zip: WHITTIER, CALIF., 90602
Phone #: 562-696-8679
Email: FRAMOS1481 AT AOL.COM.

COMMENTS:

My home is in the MARVISTA HILLS ONLY A FEW BLOCKS FROM WHERE the ORIGINAL PUMP SITE WAS to have been. I have READ the EIR's AND I have been INFORMED OF the CONFLICT OVER the drilling in the "HILLS". Nothing has changed my ANTI OPINION OF the PROPOSED DRILLING. The negatives AND "IF's" OF the drilling CONTRACT AND its CONSEQENSES ARE TOO MANY. A FEW OF the DRAW BACKS ARE:

① the Legality OF the CONTRACT OVER the voted IN Prop A. RamosF-1

② the GENERAL Reduction IN SAFTY AND HEALTH ISSUES FOR the immediate AREAS OF the drilling pertaining to the public RamosF-2

③ the PLAIN old FASHION TRUST WORTHINESS OF the OIL COMPANY'S.

* I AM AGAINST ANY drilling IN the City OF WHITTIER BY ANY OIL COMPANY AT this time. RamosF-3

RECEIVED
JUL 11 2011
Community Development

Written Comments

RECEIVED
JUL 11 2011
Community Development

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Maggie Ramos
Address: 14917 Bronte Dr
City, St., Zip: Whittier, CA 90602
Phone #: 562 696-8678
Email: GAUDYBEAR@AOL.COM

COMMENTS:

I JUST don't Like the thought of the oil company "moving in." I don't Trust Them!
Too many concerns & unanswered questions

Health concerns
Reduction in property values
pipelines running down Colima
potential disasters
increase in traffic
smell
noise
impact on natural preserve
quality of Life will be impacted

I have way Too many concerns to feel confident enough to allow for any drilling to Take place!

RamosM-1

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

RECEIVED
JUL 11 2011
Community Development

Name: Sherilynn Dee Reyes
Address: 13319 Reis St
City, St., Zip: Whittier CA 90605
Phone #: 562-693-6318
Email: sherilynnreyes@yahoo.com

COMMENTS:

I recently attended the State of the City and was given an overview of the Oil Drilling Project.

Although I love this city I donot believe the report accurately tells the whole story.

Matrix is a large corporation with vast funds paying for all of this.

The drilling will not bring revenue. It will impact the environment in a detrimental way. It will effect property values and health. ReyesS-1

It will destroy the natural habitat to the wildlife in the area

The smell alone will be a very bad thing and the other issues of large trucks + equipment going + coming.

Thank you Sheri Reyes

Jeff Adams

From: Santoianni [mitykity@verizon.net]
Sent: Wednesday, July 20, 2011 9:13 PM
To: Jeff Adams
Subject: Draft Environmental Impact Report

To: Jeff Adams, Planning Services Manager

From: Francine Santoianni

Re: Matrix Oil Corporation

SantoianniF-1

I would like to go on record to oppose the Matrix Oil proposed project. I own an apartment complex on Penn Street in the city of Whittier. My tenants already have to contend with trash trucks constantly going up and down Penn Street daily to the dump...not to mention other traffic that uses Penn Street as a thoroughfare. In reading reports that have been published regarding this project, I notice where it is proposed that the trucks use Penn Street to access the area...WHY add more congestion to Penn Street?

PLEASE...do not continue with this project!

Concerned property owner,
Francine Santoianni

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: MONICA SENA
Address: 8758 LA ENTRADA AVE.
City, St., Zip: WHITTIER, CA 90605
Phone #: 562. 693 2228
Email: m.sena@mac.com

COMMENTS:

Is The City Council or city management offering any incentives or programs that encourage ~~alternative energy sources~~ the production and or use of any alternative energy sources? SenaM-1

RECEIVED
JUL 11 2011
Community Development

July 15, 2011

Concerning Oil Project

Much as we would like to see the City of Whittier profit from oil drilling, we feel that access via Penn St. is the worst possible choice. Penn is a narrow street with no parking on one side in order to accomodate trash trucks going to Savage Canyon. It provides access to Whittier College athletic complex - soon to include an Olympic sized pool - and to Penn Park.

ThompsonW-1

Penn St is also a residential street, a part of it officially historic district.

Please consider using a route off Colima - not Catalina - or give up entirely.

Mr. & Mrs Wm Thompson
13963 Penn St
Whittier 90602

RECEIVED
JUL 20 2011
Community Development

Jeff Adams

From: Tucker, Jennifer (NBCUniversal) [Jennifer.Tucker@nbcuni.com]
Sent: Wednesday, July 20, 2011 10:00 AM
To: Jeff Adams
Cc: Glenn Tucker
Subject: Comment letter - Whittier Hills Oil Project

Mr Adams, TuckerJ-1

Please accept my comments regarding the Whittier Hills Oil Project. After reading the Draft Environmental Impact Report I wish to say this.

Everything seems so neatly wrapped up and explained in the report. All risk seems to be managed, negated or mitigated. I don't trust anything that purports to have answers for everything. I don't trust that our community will not be significantly impacted by the increased truck and construction traffic, the exhaust from the vehicles, particulate matter, the odor that carries on the wind, proposed pipelines and the waste from the project. Nor do I trust the revenue projections. The entire project disheartens me and I am very much against it. I understand that Whittier needs funds. Don't we all.

Jennifer Tucker, homeowner
13607 Via Del Palma Avenue
Whittier, CA 90602

ERWIN A. ULBRICH, JR.

7739 ELDEN AVE.

WHITTIER, CA, 90602-2625

July 20th, 2011

Jeff Adams

City of Whittier, Community Development

13230 Penn St.

Whittier, CA, 90602-1722

Re: Comments on the Revised Draft Environmental Impact Report (DEIR) for the Whittier Main Oil Field Development Project

Dear Mr. Adams:

I am a private citizen of Whittier with 48 years of experience living near the Habitat Preserve formerly the Standard Oil Field. The Revised DEIR is much better than its predecessor which I also commented on. I was pleased to see that some but not all of my comments were fixed by the authors of the DEIR. In general, my views are similar to that of the Habitat Preserve as expressed in their letter of July 14th, 2011 and the County Parks letter dated Dec. 6th, 2010. Both of these were slanted toward the enhancement of parks which I feel are essential in the highly urbanized area surrounding the Habitat Preserve. Earlier in time, Whittier got a report that 80,000 people are using the Preserve a year. I have personally run my own survey by sitting at the Arroyo Pescadero trailhead and handing out maps showing the area that would be taken away by the Project. This map, I got from the DEIR section on recreation, page 4.14 – 4. My resource limited estimate is that at least twice the number of people are using the trails as was estimated in 2007.

UlbrichE-1

From 1993 to 1996, I was on the Preservation taskforce of Whittier citizens helping create the Habitat Preserve. We limited use to hikers, bikers, and horses. Having made my survey, I now see that we should have added another category: urbanites with dogs on leashes. Although these dogs don't vote, they are an important part of their owner's life, and they love the hiking and are not coming for a potty stop as some critics might suggest. One owner said that when she didn't go to work, her dog would get real anxious until she took him to the Preserve. In my survey, I would guess that at Pescadero, one dog comes with every three people. All the dogs have been on leashes and I think they have a minimum impact on wild life keeping out of the core habitat. Living with coyotes for 48 years, I am sure the wily

coyotes have more of an impact. In my own case, I count on the coyotes to limit rats and ground squirrels who are prodigious diggers on hillsides.

UlbrichE-2

I also am part owner of three oil and gas wells in Kansas and this gives me a chance to Compare an oilfield here and in Kansas. This brings me to comments on section 4.14 RECREATION. In this area, many users are exposed to all of the bad things: noise, air pollution, water pollution, upsets, etc. It appears that the Project Plan fences local areas and not the 3 mile long road. This is similar to my oil wells which are primarily fenced to keep stray cattle out. People can walk right up to our horizontal flare if they want. This works because it is private property which is 5 miles away from any people. In the Preserve which is surrounded by 500,000 people, it seems very dangerous to allow any one near machinery, 41 foot retaining walls, caterpillar tractors, diesel engines running 24 hours a day, flares running 24 hours a day, etc. It would seem to me that common sense would say to keep everybody fenced off. When Standard Oil managed this property they had fences and security guards in trucks to keep people out. The risk to Matrix and the City would seem very large especially if the City is self-insuring. The recent accident where a boy broke his arm in Hellman Park hanging from a tree would only be a beginning. The accident on Honolulu Terrace could have hurt innocent people if it wasn't fenced. The big trucks operating in the early phases of the project on narrow roads would also seem hazardous. In summary, where will the fences go? Will you attempt to let people use the Preserve anywhere within a thousand feet of the Project?

UlbrichE-3

My second area to comment on is Section 4.8 HYDROLOGY AND WATER RESURCES. In section 4.8.1.1 it states that the Hills in Whittier are 1800 feet high. I believe this is closer to 1500 feet. The Project site lies on La Canada Verde Arroyo which drains to the South passing near 4 schools and entering Leffingwell drain which goes to Coyote Creek and the ocean. In 48 years, I have never seen running water go this far, but it could in some sort of a cloudburst. They then describe Arroyo San Miguel Creek which is separated by Colima Rd. and is not of much interest. They go on in section 4.8.1.2 to discuss ground water and state that the closest water well is 2.5 miles away; I presume they are talking about the Whittier wells which are in Pico Rivera across the San Gabriel River. In point of fact, they should survey the East Whittier suppliers such as Suburban Water, California Domestic Water, Orchard Dale Water, etc. including La Habra and La Mirada. In addition, in La Canada Verde Creek, there is a water well (currently unused) right in the drainage from the project located north of Catalina and Mar Vista which could allow pollution to get into the local ground water. There are also surface water reservoirs nearby which should be considered. In their description of ground water elevation, they don't seem to know that the ground water elevation is managed by the WRD, (Water Replenishment District since the 1950's) for the 43 cities involved. This brings me to another problem which I also mentioned in my previous comments. The project is on the eastern edge of the Central basin of the groundwater basin as shown in Figure 4.8-2. Any pollution that gets into the ground water will flow to the south and west. The two Super Fund sites in Whittier have both been found as far away as Norwalk and are requiring previous pollution sources to pay millions of dollars for cleansing. This even true for the some of the Whittier wells which use water from the San Gabriel basin polluted by dry cleaning fluids and perchlorates which are run by the City through a federally-purchased, activated charcoal filter system before use. My next comment involves section WR.5 on page 4.8-18 and following. This impact about

the reinjection of produced water lacks a Mitigation Measure which ought to be on page 4.8-33. The planned mitigation is to cement in a double casing to take the water to be reinjected well below the strata where there is potable water. In a flat world with flat strata this would be a very good solution; however, in this case the strata are quite complicated and come to the surface. See the following figure.

Whittier Fault Cross Section

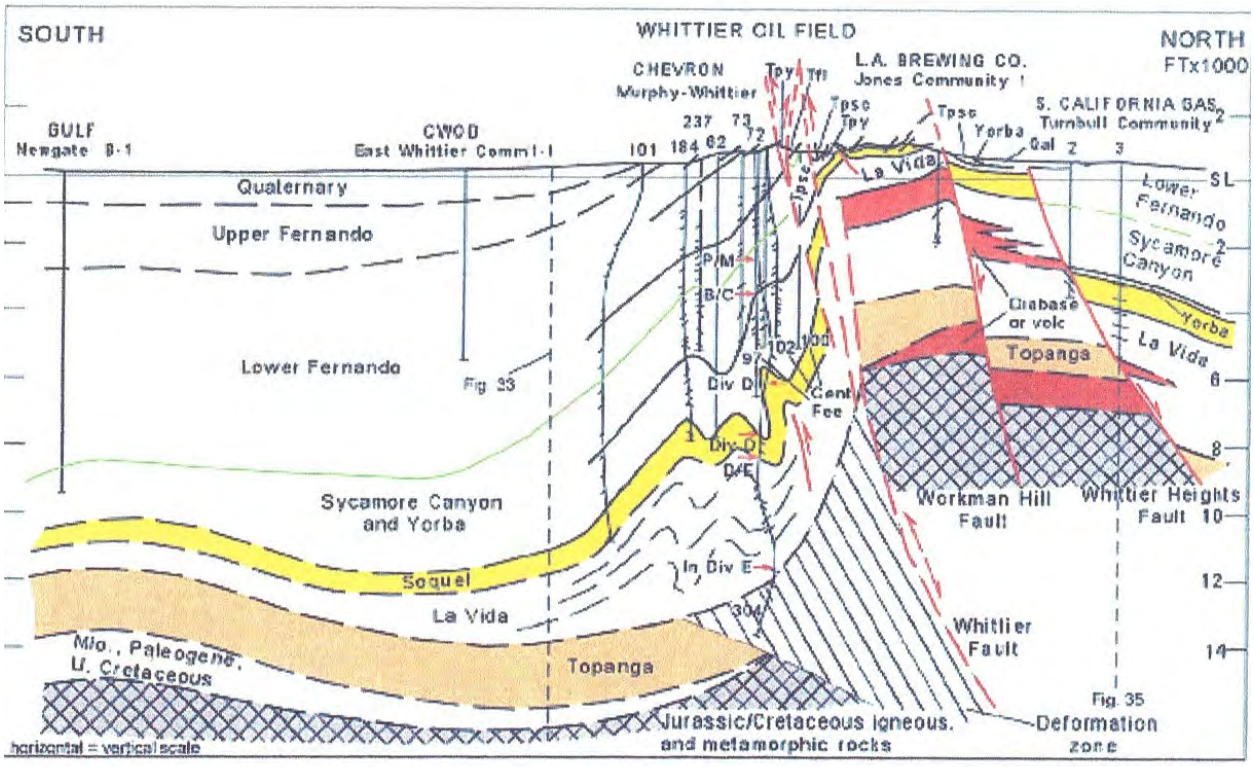


Figure 34. Northwestern segment of the Whittier fault from Whittier oil field to Turnbull oil field. Microfaunal divisions (Division E (E), Division D/Division E contact (D/E), Division D (D) and Division B/Division C contact (B/C)), Yorba Member (Tpy), Sycamore Canyon Member (Tpsc), Pliocene/Miocene contact (P/C), Lower Fernando Member (Tfl). Arrows along the wellbore identify locations of microfaunal data. Modified from Yerkes (1972, cross section C-C') and Herzog (1998, cross section C-C'). Interpretation of hangingwall block based on data from Davless and Woodford (1949). The two volcanic or diabase units are each drilled by a single well (Los Angeles Brewing Jones Community 1 and Conoco Buehler 1). Woodford, et al. (1944) reported Lusian and Relizian foraminifera in the latter well. Since the 3-D shape of these igneous units is not known, the interpretation on the cross section is speculative.

It can be seen that the Soquel strata as an example is 6,000 feet down where the oil is but in a short distance rises to the surface when it gets to the first of the three faults perhaps a thousand feet from the oil well. This means that the cemented casing can put water in which can conceivably rise to the
UlbrichE-3 surface. All of this is because when the San Andreas Fault moved ashore in the last 40 million years, it squeezed out a big plug to an altitude of 6500 feet which were the ancestral Puente Hills. It also built the Transverse Mountain Ranges which dominate our landscape. In the ensuing time, this plug has eroded down to 1500 feet and the remains have become the land on which much of L.A. sits. It also should be noted that there are three faults, not one. The integrity of injection wells is the responsibility of DOGGR, a State Agency. The quality of the ground water is the responsibility of the Regional Water quality Control Board. As mentioned earlier, the Water Replenishment District in which all this sits should also have a say in this because of their program to reuse all the water in the district and eliminate some or all of the use of water from the California Water Project, The Owens River, and the Colorado

UlbrichE-3 River. The WRD is especially sensitive to salt in the used water and oil chemicals. I would like to suggest that the correct mitigation plan for reinjection of produced water be the subject for the Central Coast Water Quality Control Board, the DOGGR, the WRD, and the EPA to have compulsory hearings on the design of the reinjection wells so that all parties can be assured the Central basin water cannot be polluted. A subset of this for DOGGR is what happens to water injected into a hot earthquake fracture zone which we have here which relates a little to the situation where water injected at the Geysers near Santa Rosa caused 2,000 or more small earthquakes and related complaints. In the early part of the 1900s, Whittier had several hot water springs, one causing the spa to be built in Sycamore canyon. In my own house lot, I have the remains of several of these springs which I mined from the earth during the construction of a retaining wall. The hot water deposits do not support plant growth and are corrosive to galvanized pipes. If the City would like a sample to test, I have some. If there is anything I would not like it would be hot, salty, oily water running out of my hillside.

I would also like to point out that many of the mitigation measures described in this section are to be accomplished by the City. Since our safety should be paramount, it seems like a conflict of interest to let the same City to have a financial stake in the outcome of the mitigation. Perhaps an independent State agency would be better like DOGGR.

UlbrichE-4 Finally, the Whittier faults (3) are grinding along at 5 mm / year. This doesn't seem like much but in 30 years, it amounts to 6 inches. How are we protecting the plumbing and pipeline from this growth?

UlbrichE-5 As a post script, I would like to add that if the Oil Field were ever moved to the savage canyon Dump as described in the Habitat Preserve letter, there could be a big problem which is the periodic flooding at the gates of the dump on Penn street being polluted with oil field run-off. I have seen this flood several times and if it comes it impacts ground water and runoff to the West into the San Gabriel River.

UlbrichE-6 The final section I would like to discuss is section 4.1 AIR QUALITY. I would like to say that I found this section to be very comprehensive and detailed. The one thing I didn't find was any discussion of the 2006 explosion and fire at the Honolulu Terrace location. The average citizen thinks of this, not some description of diesel particulates when he thinks of oil well air pollution. What is going to be done to prevent this kind of a thing? I read that the fire was caused by a kick, a basement with inexperienced help, a hard to fight fire, and lots of hydrocarbons. Statistical analysis is all good and well, it is the exceptions that give you problems. People are already complaining in the paper about air pollution at the Sycamore Canyon facility. Let's see the design of an oil field so good that it could go in the Alpha Beta lot surrounded by uptown rather than an approach where we use distance to cover real pollution problems that exist. How about collecting the gas emitted during the initial phases when there is no pipeline instead of flaring like they do in Sycamore Canyon. How about limiting operations to 12 hours per day?

July 15, 2011

Mr. Jeff Adams
Community Development Department

Dear Mr. Adams,

For the record, I have been against the idea of drilling in the Whittier Hills since I first heard about it. Nothing I have read in either the first DEIR released by Marine Research Services in October 2010, or the current DEIR, has convinced me to change my mind. Instead I find I am entirely daunted by the prospect of trying to respond to the many ways in which this project appears to be so ill-advised. I am especially troubled by many of the conclusions reached by MRS, particularly in respect to what does and does not constitute "significant unavoidable impacts", as well as what kinds of mitigation measures would be taken to decrease the inevitable negative impacts that a project of this size would necessarily have. First of all, who decides what is a "less than significant impact", and how is that decided? What criteria is any of this based on? VannucciP-1

On page ES-12 of the June 2011 DEIR it is admitted that by using Penn Street for access to the Project site, there will be an impact to environmental justice that has a "disproportionate impact on minority and low-income populations". These impacts are then immediately dismissed as "less than significant". According to whom, and based on what sort of evaluation? Do the people on Penn, Painter, and Hadley not count as much because many are "minority and low-income"? This is never really explained or spelled out, so one is left wondering how exactly these decisions were made. In fact, one is left with the distinct impression that "environmental justice" is strictly for the wealthy. No one at MRS bothered to poll anyone on the proposed truck route (I guess we're not part of the environment), but believe me, sending an unspecified number of oil tanker trucks through these neighborhoods will definitely have a very significant *negative* impact on property values, infrastructure, and quality of life. VannucciP-2

The paragraphs that I thought truly stood out are located on page ES-18. I have added the bold italics for emphasis and clarity. The words I found troubling refer to why the Loop Trail Road would not be a good option for access to the drilling site, and they are as follows: "***Noise levels would increase for both recreational and residential receptors*** located close to the Loop Trail Road. Noise levels for recreational users would increase by more than the 5dBA threshold ***and would be considered a significant and unavoidable impact***. The roadway and accompanying ***traffic would also be visible from nearby residences and recreational areas*** and trails in close proximity to the Loop Trail Road. ***This would degrade the visual quality for both residences and recreational users and would be considered a significant unavoidable impact."***

These words are not troubling to me because they are false. I believe they are quite true. What baffles me is why MRS considered these impacts to be so significant for the people who live on Lodosa Drive and near Colima and Mar Vista streets, but do not seem to think these **same impacts** are significant for those of us who live on Penn, Painter, and Hadley. In fact, the impacts would be even more invasive on Penn, Painter, and Hadley. MRS seems to be very concerned with the "views of the preserve" that a few of those residents to the east now enjoy. But surely there is no residence within 30 feet of the Loop Trail Road; if they were to see any trucks at all, it would have to be out a second-story window in the backs of their residences, and much further than 30 feet away. My house, however, is within 30 feet of, and faces the street on VannucciP-3

which these three-ton trucks would be driving. Other homes on Penn, Painter, and Hadley are even closer to the road. I assure you that these trucks will be very visible from my residence and that of the hundreds of other people who live on the proposed truck route. These large trucks will definitely "degrade the visual quality" of our surroundings for myself and my neighbors. I believe that if something is considered a "significant unavoidable impact" for the folks on Lodosa Drive, then it is certainly logical that it should be considered a "significant unavoidable impact" for the folks on Penn. I do not understand how MRS came to a different conclusion.

Also, although the MRS folks seem to have overlooked this (has anyone from this company actually ever *been* on upper Penn Street?) we do have a recreational area here on Penn that gets far more use than the Loop Trail Road. Every day, children, seniors, families, and students walk or drive up Penn Street to enjoy Penn Park. These recreational users will be affected by the additional large truck traffic which this drilling project would send down Penn Street. VannucciP-4

Because I live on Penn, obviously I am keenly aware of the nature and amount of traffic that we have on this street. Both MRS, and, I believe, the City Council, seem to be under the impression that since we already have some truck traffic on this street, it won't bother us to have more. They are wrong. The traffic analysis MRS refers to in this second DEIR must be the same one from May of 2010, when Whittier College was a) not in full session and b) not using Penn Street as the entrance for all of its athletic events as well as student use of the gym. At one of the meetings where citizens met with the representative from MRS I did suggest that they do a new traffic analysis at a time when the college was in session, but they couldn't have done that since that meeting was in early May and this new report came out in June. Still, the potential traffic impacts on Penn Street are blithely dismissed on page ES-18 because, according to MRS, Penn Street "currently operates at an acceptable level of service". Do they not think it possible that adding large-truck traffic to a residential street will push it beyond acceptable levels? How much traffic is this residential street supposed to bear? This new DEIR calls for traffic mitigation measures like limiting Project-related traffic to non-peak hours. For the past 10 months the non-peak hours on this street have been roughly 11:00pm to 6:00am, including weekends. I don't know when or if that will ever change, but I certainly don't want Matrix Oil sending tanker trucks down my street between the hours of 11:00pm and 6:00am as a mitigation measure. There has got to be some time on this street when we can have some peace and quiet. VannucciP-5

Other proposed mitigation measures for Penn Street which are listed on page ES-45 of the DEIR include such items as

- Enhanced pedestrian crosswalks and signage (note: the pedestrians aren't really the problem here. Crosswalks are certainly nice, but they won't alleviate the problem of too much car and truck traffic) VannucciP-6
- Limiting hours for Project truck traffic to periods when the landfill is open in order to "avoid congested or impacted periods" (note: when the landfill is open is when there is the most truck traffic on Penn. As one who, in the past, has seen trucks line up and wait to enter the landfill, this idea will neither avoid nor mitigate traffic congestion. I will just be seeing trucks, with engines idling, parked outside my dining room window). VannucciP-7
- Alternative parking locations and routes for Whittier College events (note: where is the exact location of this possible alternative parking? The college is currently building an expanded athletic center to accommodate what they say is a growing number of athletes at the school, but they have not added *any* new parking, nor do they have plans to, as far as I can tell. In fact, according to the college web site, "The parking spaces that once VannucciP-8

faced the building have been removed to make way for offices on the soon-to-be new pool deck." So there is now even *less* event parking, but increased student use of the facilities. The only alternative parking anywhere around here is on Penn and Canyon, and users of the college facilities, visitors to Penn Park, and residents, are already using those "alternative parking locations." This mitigation measure is a fantasy mitigation measure).

According to the June DEIR, Catalina Avenue will also be used for project traffic, and mitigation measures proposed for that residential street include a limit on the number of cars per day as well as a ban on all truck traffic. Those are true mitigation measures. Yet the residents of Penn, Painter, and Hadley are given no such assurances. Instead, it seems that we could possibly have unlimited truck traffic at all hours due to this proposed project. But in truth, there are really no mitigation measures that I can think of that would make additional truck traffic acceptable on Penn Street. VannucciP-9

Penn is a residential street. I must stress that, because I don't feel that the residents here are being treated as if we live on a residential street. Penn Street is just a truck route to MRS and Matrix Oil. They seem to believe that no increase in noise, traffic, pollution, or danger could possibly impact us in any meaningful way. No one – other than the residents on Penn - seems concerned about the decrease in "visual quality" on our street. The June DEIR reads as if Penn is merely the street that leads to the dump, so no thought need be wasted on its many residents. Apparently we deserve no consideration, no real mitigation of the negative environmental and aesthetic impacts that must result from this project and the excess traffic it will generate. VannucciP-10

In addition to my concerns about Penn, Painter, and Hadley streets, I also have a question concerning the "nearby receiving terminal" that is mentioned at the bottom of page ES-4. This is where tanker trucks loaded with oil would be sent during the "rare periods when the pipeline system is shut down", or, one can assume, during the time before the pipelines are built. Where exactly is this nearby terminal? VannucciP-11

Another question is, if the "total impacted area" (ES-4) for this project in the Preserve is 30.6 acres, is that the total amount of land that the city of Whittier will have to come up with to "swap" for the Preserve land. I understood that whatever habitat land the City and Matrix Oil ruin for the sake of oil, the city has to give back an equal amount of land to make up for the loss to the habitat. What is the total amount of land that the city would have to come up with, and where exactly is this land located? VannucciP-12

There is much else to dislike about this project and the "environmentally superior" Penn Street alternative (please lose the title "Savage Canyon Landfill Alternative" – it is dishonest). Is it really so environmentally superior to send trucks miles out of their way, and miles through the Preserve, causing extensive damage to vegetation and wildlife, to get to the project site? Is it environmentally wise to impact *any* of the land in the Preserve, much less 30.6 acres, that I, for one, voted to keep "as is" in perpetuity? Is it environmentally sound to build roads, pipelines, utility poles, and processing facilities in a nature preserve? Is it environmentally smart to install gas pipelines down an extremely busy traffic artery like Colima or to send tanker trucks loaded with oil down residential streets? And after having lived across the street from the construction at Whittier College for the past 8 months, I do not envy any homeowner who lives anywhere VannucciP-13

near where they plan to drill the wells. There is no way to implement this project and not create numerous significantly negative impacts for hundreds of residents of this city.

I still vote for the "No Project Alternative". That is truly the environmentally superior alternative, because it does no harm to residents, wildlife, or the Preserve.

(Author: Paula Vannucci – added by staff)

Jeff Adams

From: Cynthia Velasquez [cynvel@yahoo.com]
Sent: Monday, July 18, 2011 10:13 AM
To: Jeff Adams
Subject: DEIR Comments on Air Quality

AIR QUALITY

"Operational and drilling activities at the Project Site would also create odor events and emit toxic materials." (ES-7)

VelazquezC-1

Q1 - How will you mitigate the air quality impact during the construction phase and thereafter as far as the immediate Penn Street residents are concerned?

Q2 - How will the odor events and toxic material emissions be addresed within 1 mile, 5 mile, 10 mile ranges of the drilling site?

VelazquezC-2

Q3 - What are the detailed risk factors involved and how will they be communicated to the Whittier residents and public at large public?

VelazquezC-3

Please Respond
Ms. Cynthia Velasquez
13808 Penn Street
Whittier, CA 90602

Jeff Adams

From: Cynthia Velasquez [cynvel@yahoo.com]
Sent: Monday, July 18, 2011 10:19 AM
To: Jeff Adams
Subject: DEIR Comments on Aesthetics

Aesthetics

"Significant and unavoidable impacts to area aesthetics would occur during the Project. Specifically, public viewsheds would be impacted by the installation of the oil drilling rig." (ES-8)

Q1 - What public viewsheds would be impacted by the installation of the oil drilling rig? VelazquezC-4

Q2 - What noise/light impact would be realized by Penn Street residents if any? VelazquezC-5

Q3 - What noise/light impact would be realized by Whittier residents if any? VelazquezC-6

Q4 - I read that some of the mitigation measures are berms and native vegetation and nuetral paint colors, but how big will the structures be? How visible and what kind of waste will be produced by the new structure? VelazquezC-7

Please Respond,
Ms. Cynthia Velasquez
13808 Penn Street
Whittier, CA. 90602

Jeff Adams

From: Cynthia Velasquez [cynvel@yahoo.com]
Sent: Monday, July 18, 2011 10:26 AM
To: Jeff Adams
Subject: DEIR Comments on Hydrology

HYDROLOGY

"Impacts to hydrology and water resources that are less than significant with mitigation include a potential increase in erosion, storm runoff, surface runoff, and runoff pollutants." (ES-10)

On Penn Street next to Penn Park alley access there has always been signings warning the public of FLOODING in the area. Based on the ES-10 statement above my questions are: VelazquezC-8

Q1 - Was the environment impact conducted during a storm to realize the true hydrology affects this new oil drilling might produce?

Q2 - if the area was already prone to flooding, how will new construction and oil drilling mitigated the increased threat? VelazquezC-9

Q3 - will Penn street need new sewage construction to support this Matrix Oil project? VelazquezC-10

Please respond,
Cynthia Velasquez
13808 Penn Street
Whittier CA 90602

Jeff Adams

From: Cynthia Velasquez [cynvel@yahoo.com]
Sent: Monday, July 18, 2011 10:44 AM
To: Jeff Adams
Subject: DEIR Comments - Traffic

The report does not adequately represent the HUMAN & TRANSPORTATION TRAFFIC impact that will result if this Matrix project moves forward.

Q1 - What is the maximum number of trucks that will travel residential Penn street? VelazquezC-11

Q2 - what is the weekly/daily schedule of trucks? VelazquezC-12

Q3 - How heavy will the trucks be? VelazquezC-13

Q4 - How will traffic noise be mitigated as far as Penn Street residents are concerned? VelazquezC-14

Q5 - How will the street vibrations from the large trucks impact current Penn Street residents? VelazquezC-15

Q6 - What are the REAL parking limitations that will be put in place for both residents and visitors? VelazquezC-16

Q7 - How will Whittier College Sport Complex visitorvparking be impacted and will there be follow out onto Penn Street and surrounding residential blocks? VelazquezC-17

Q8- How will Penn Park visitor parking be impacted and will there be follow out onto Penn Street and surrounding residential blocks? VelazquezC-18

Q9 - What safety factors are in place in case of collisions, explosions or natural disasters involving the transportation of Matrix oil VelazquezC-19

Q10 - Will Penn Street require further street construction to support the Oil project? VelazquezC-20

Please respond
Cynthia Velasquez
13808 Penn Street
Whittier, CA 90602

Jeff Adams

From: Richard Veyna [richardveyna@charter.net]
Sent: Monday, July 18, 2011 3:05 PM
To: Jeff Adams
Subject: Whittier Main Oil Field Public Comments

Dear Mr. Adams,

My name is Richard Veyna, I have resided at the northwest corner of Carretera and Colima for the past twenty-six years. In that period of time I have watched my property gradually increase in value. Unfortunately, like many others, I witnessed that value plummet along with most all real estate in Southern California. Apart from the loss in property value, over the last quarter century, I have watched as Colima Road has become steadily more congested. I have been subject to the increased pollution and noise as well; which is bound to have a long term effect on mine as well as my family's health.

I would like to clearly state that I am EXTREMELY IN OPPOSITION to continued oil exploration in the Whittier hills and to a pipeline that would cross right in front of my house, for the following reasons; VeynaR-1

1) It would greatly reduce the already diminished value of my personal residence,
2) It would cause an increase in the level of pollution in Whittier and most particularly to the residents along Colima Road,
3) As in San Bruno, CA, there is potential for a catastrophe with potential loss of life, in this case, MINE,
4) There is no direct benefit to the population of Whittier, outside of a better park system. A better park system, that is only if the County of Los Angeles sees fit to share any royalties they are granted from Matrix Oil Co. and Clayton Williams Energy,
5) The practice of water fracturing in the oil fields above us has had historically negative consequences to the residents above or near the area which is being injected with water under extreme pressure.
6) The Whittier Hills were supposed to be PERMINENTLY designated as a wildlife preserve, not temporarily until the land had a better use.

If the general population of the city of Whittier realized they will receive potentially nothing but a huge bill for the needed repairs to our infrastructure in exchange for the congestion and pollution they will be forced to accept, I doubt if this would be a point of discussion at all.

I for one am not willing to accept the 'collateral damages' which are likely to occur for the enrichment of another oil company.

Remember, should a catastrophe occur sometime in the future, should there be a loss of life, those that signed their names to this measure will be on record forever for allowing this to happen.

Richard W. Veyna
15188 Carretera Drive, Whittier, CA 90605

July 20, 2011

Mr. Jeff Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602

Dear Mr. Adams –

Thank you for the opportunity to comment on the Whittier Main Oil Field Development Project Public Draft - Environmental Impact Report. We raised our family in the Friendly Hills neighborhood of Whittier, and I am still a resident of the neighborhood. We have a number of concerns regarding the proposed Project.

Comments

The only City and Matrix Objectives that would be met by the proposed Project are financial objectives and include the following:

- Generate a substantial, long-term income stream for the City;
- Provide long-term resources (financial) to help manage environmental issues associated with the Project within the Puente Hills Landfill Native Habitat Preserve (Preserve);
- Develop the Whittier Main Oil Field, pursuant to the terms of the Oil and Gas Lease with the City of Whittier dated October 28, 2008, utilizing current "slant-drill or high-angle well" technology and other state-of-the-art techniques while maintaining safe and efficient operations;
- Stimulate the local economy by providing opportunities for qualified local businesses to sell goods and services and for qualified workers to apply for jobs;
- Maximize oil and gas production from the field, thereby maximizing royalty payments to the City of Whittier.

The proposed Project would result in significant, unavoidable environmental impacts (impacts that cannot be fully mitigated to less than significant levels) to:

- **Air quality** (construction and emissions of GHG);
- **Aesthetics and visual resources;**
- **Hydrology** (due to the potential for spills).
- **Land use** (views of the drilling rig); and
- **Recreation** (Preserve impacts);

The proposed Project would result in adverse environmental impacts to:

- **Biological resources** -The Puente Hills Landfill Native Habitat Preserve (Preserve) is an integral part of the Puente-Chino Hills Wildlife Corridor, an unbroken zone of natural habitat extending nearly 31 miles from the Cleveland National Forest in Orange County to the west end of the Puente Hills above Whittier Narrows. Development of the area

could interfere with the movement of wildlife species at the site such as resident birds and other small mammals. The development footprint could restrict resident wildlife from moving through the various portions of the permanent open space areas;

- **Safety, risk of upset, and hazardous materials**;
- **Noise and vibration.**

The environmentally preferred alternative is the mitigated proposed Project with the North Access Road and mitigated proposed Project Catalina Avenue Access for accessing the site, and the Lambert Railroad Right-Of-Way for the pipeline route. The environmentally preferred alternative still produces six significant, unavoidable impacts to aesthetics, recreation, land use (views of the drilling rig), air quality (from construction and emissions of GHG), and hydrology (due to the potential for spills).

Comment 1: The only stated **City and Matrix Objectives** that would be met by the proposed Project are financial objectives. With all of the significant unavoidable impacts, how would the proposed Project meet the following **City and Matrix Objectives**?

WeideM-1 • Minimize environmental impacts from the Project on the Preserve;
WeideM-2 • Minimize noise impacts to surrounding areas;
WeideM-3 • Minimize traffic impacts to surrounding areas;
WeideM-4 • Minimize impacts to the functioning of the Core habitat of the Preserve;
WeideM-5 • Minimize impacts to operational, recreational, and educational opportunities of the Preserve;
WeideM-6 • Facilitate the long-term preservation and enhancement of the Preserve's ecological resources and native habitat;
WeideM-7 • Maintain reasonable fire safety levels for the community and open space;
WeideM-1 • Employ current technologies in an effort to reduce environmental impacts to less than significant levels;
WeideM-1 • Minimize and mitigate negative impacts of the Project on the local community

WeideM-8 **Comment 2:** The proposed Project would involve drilling wells and producing oil and gas from the Project Site, which comprises approximately 7 acres of pad area plus additional disturbed and modified areas and roads, owned by the City, which is part of the Puente Hills Landfill Native Habitat Preserve How will goals of the Preserve's Resource Management Plan (RMP) be accommodated? The proposed Project could conflict with the provisions of the RMP."

WeideM-9 **Comment 3:** Are there any long-term benefits to the City of Whittier to off-set the short-term financial benefits? Are the citizens of Whittier and the City of Whittier going to benefit from the project over the long-term? What is the project's planning horizon?

WeideM-10 **Comment 4:** Will CDFG, USFWS, RWQCB, SHPO, and other responsible agencies allow the proposed Project to receive permits? If not, why is Whittier spending city staff time and budget on this environmentally damaging project?

Thank you for the opportunity to comment on this EIR, and based on the adverse impacts to the Puente Hills Landfill Native Habitat Preserve and the overwhelmingly significant unavoidable

adverse environmental impacts associated with the proposed Project, my family would recommend that the City of Whittier deny this Project's application.

Sincerely, Moyra D. Weide

Mrs. Moyra Weide
8260 Davista Drive
Whittier, CA 90602

George and Elizabeth Weide
Chris Weide
Judy and Jeff Burrows
Stephanie and Steve Dahlberg

RECEIVED
JUL 21 2011
Community Development

Written Comments

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: TERI WILKINSON
Address: 8315 CALIFORNIA AVE
City, St., Zip: WHITTIER, CA 90605
Phone #: 562-693-6129
Email:

COMMENTS:

WilkinsonT-1 (1) The city has no right to allow anything on the land in question, which was bought with Prop A money. As a landowner in L.A. County, I and many others "own" that land, and the rules that were set in place at the time of purchase do not allow any commercial ventures.

WilkinsonT-2 (2) I am a cancer survivor of 19 years. My cancer was attributed to the chemicals coming into Whittier from the Santa Fe Springs refinery. I live at the corner of California + La Cearta, too close to the proposed drilling area. I DO NOT WANT TO GET CANCER A SECOND TIME! Benzene is a known carcinogen. A friend of mine who lives at Pickering by Honolulu Terrace is fighting breast cancer for the second time. My husband + I have worked hard on our home since the '87 earthquake, and I don't want to be forced to move because I might get cancer again!

over →

WilkinsonT-3 (3) If you do start drilling, the value of my home will decline, as will all the others in the area. Ours is the nicest area of Whittier, and if we current homeowners move out, the homes will lower in value and the area will end up like South Whittier.

WilkinsonT-4 (4) Why would the city allow something like this? Do you really think the small amount of money the city will actually get is worth exposing your citizens to carcinogenic chemicals, & causing property values to plummet? Somebody - DO THE MATH!! It's not worth it, unless there are other "payments" being made here + there.

WilkinsonT-5 With global warming, we know that clean energy is the future. Don't add to the crap in the air and the ground. Find other methods to save money.

THIS IS JUST NOT WORTH IT!

Jeri Wilkinson

P.S. WilkinsonT-6 Check with Cal Tech regarding the very dangerous earthquake fault we sit next to. The "BIG ONE" is expected to run along this fault.

RECEIVED
JUL 11 2011
Community Development

Mail Copy

Written Comments

RECEIVED
JUL 11 2011
Community Development

Whittier Main Oil Field Public Comments
Monday, July 11, 2011 - 6:00 p.m.

Name: Dr Clyde Williams
Address: 4115 Barrett Rd
City, St., Zip: Los Angeles, CA 90032
Phone #: 323-528 9682
Email: ctwilliams@yahoo.com

COMMENTS:

WilliamsC-1

(1) Sierra Club Angeles Chap has strongly oppose previous and current proposed petroleum production develop 300 000 sq ft or any significant amount of the preserve and its immediate surrounding.

WilliamsC-2

(2) The Environmentally Superior Alternative must be without any loss of preserve to non-wildlife habitat which can be done using directional drilling under the preserve from adjacent urbanized areas

WilliamsC-3

(3) The Environmentally Superior Alternative must included a fully developed "Community Standards District as enforced and updated by the County of Los Angeles for the Baldwin Hills (Inglewood Oil Field) and made specific for the Whittier Main Oil Field.

(4) All money received by the City or other agencies as royalties, fees, etc should be directed to the Full Restoration of the Entire preserve and

WilliamsC-4

only after the Preserve has been preserved and restore, then funds must be allocated for restoration of other "underdeveloped, vacant lands in Whittier with priority given to those closer to the Preserve.

?

2

Whittier Project - DEIR AND CONDITIONAL USE PERMIT ISSUES

0. Format – *Quotes with section and page numbers from DEIR in italics, with emphasis on* ***key word or phrases bolded/unlined*** *subject to* comments given immediately below the relevant quotes without italics, bolding, underlining.

1. City and County Plans and MMRP

Other agencies within the County of Los Angeles have encountered similar conditions and activities and have organized such oil/gas exploration and production projects through the "Community Standards District" (recently completed and implemented for the Inglewood/Baldwin Hills Oil Field and District). WilliamsCT-1

The EIR does not discuss this approach and its importance with the DEIR's Section 8. Therefore the Section 8 must be considered as incomplete and inadequate for the development of an environmentally sound and objective assessment and mitigation of oil/gas development and production within the County of Los Angeles.

2. MMRP

8.0 Summary of Mitigation Measures and Mitigation Monitoring Plan
8.1 Mitigation Monitoring Program
8.2 Monitoring Authority and Enforcement Responsibility
The purpose of a Mitigation Monitoring, Compliance, and ***Reporting*** *Program (MMCRP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. p.8-1*

The entire section is generalized, vague, and does not provide information indicated would be in the Section 8 tables; therefore this Section can be deemed incomplete and inadequate for the DEIR.

The "Mitigation Monitoring and Reporting Plan" (MMRP) as stated in the various documents has not been provided as a brief draft in Section 8 of the Draft Environmental Impact Report (DEIR) and would presumably be updated as part of the Final EIR (FEIR).

The assignment of responsible units does not identify the City, Authority, or County departments responsible for the implementation, assessment of adequacy of mitigation to less than significant, monitoring, and reporting. Although Reporting is mentioned, reports can only be available upon request without knowing what and when any "report" may become available – not by way of Public Record Act requests but within special section of the City Library and web pages.

8.5 Mitigation Monitoring Table
Tables…present a summary of monitoring and ***reporting plan requirements*** *for the mitigation measures…applicable to the proposed Project. The Table provides the following information: p.8-3* WilliamsCT-2

No reporting is indicated in any table sections and no unit is assigned as to receive of requests for reports. All such reporting and other activities of a MMRP are well founded in the Community Standard District approach of the County of Los Angeles.

Furthermore within the Counties of Los Angeles and Orange, numerous gas/oil facilities are operating without visual, odor, noise, and other impacts which were ascribed to the drilling activities of this report, for example in Downtown Los Angeles City, Pico/Wilshire, and Long Beach Harbor.

Therefore the summary tables of mitigation are incomplete and inadequate. If such are inadequate or incomplete, then the underlying Sectional mitigation discussion must be considered as incomplete and inadequate and revised for a fully objective and uptodate assessment of impacts and mitigation as for landuses and air quality.

4.11.4 Project Impacts and Mitigation Measures

Residual Impacts

The residual impacts would be less than significant with mitigation.

Impact #	***Impact Description***	***Phase***	***Residual Impact***
LU.3	*Views of drilling rigs, construction, and potential future operations could be incompatible with adjacent land uses.*	*Drilling, Construction, Operations*	*Significant and Unavoidable*

p.4.11-21

3. Air Quality

Methane gas is a recognized GHG which is considered as more potential in it effects on the climate and warming than simple CO2. South Coast Air Quality Management District (SCAQMD) has and does not control or manage releases of methane for “air pollution” or as “volatile organic carbon” gases and will/may eventually control methane releases via the GHG requirements.

As the venting mitigation measures for well casings and other sources would release unknown quantities of methane to the atmosphere, estimated volumes for an assumed number of vents should have been included and compensated either by incineration treatment of the releases, reducing from methane to CO2, or by other measures (e.g., collection and use) as part of the “Sustainability Plan” for GHGs.

References to “minimal” or “insignificant“ are unreasoned and unreasonable responses to the Public’s comments of concern regarding methane contributions to GHG and the health and safety for occupants and residents of a future project.

“AQMD Plans”

Simple reference to future approved plans does not provide the Public and decision makers with the designated responsibilities, accountabilities, and financial capabilities of the responsible parties for implementing the mitigation and GHG controls to achieve the required levels of reductions or compensations to reduce accepted and recognized mitigation below the levels of “significance”, the monitoring of venting and DOGGR and SCAQMD compliance, and reporting and approvals of reports within the Public participation and information processes. WilliamsCT-3

Undefined "Plan" documents without drafts, outlines, requirements, "scopes of work", etc. do not provide required public participation in the decision making processes and lead to unobjective and arbitrary discretionary decisions.

City, County, and State Responsibilities and Jurisdictions

"Plans" require specific assignment, schedules, and acceptance of responsibilities/jurisdictions and financial supports within the Federal, State, County, and City agencies; as indicated by numerous recent examples, these responsibilities and supports must be specifically and reasonably assigned without unsupported references for success at sometime in the future in light of the ill-defined operations of the petroleum field, as either abandoned, to-be abandoned, idled, or to-be operated. These specific items must be developed, compiled in standard tabular forms, and presented for Public review, considerations, and comments prior to the discretionary decisions being made.

4. Puente Hills Landfill Native Habitat Preservation Authority
1.0 Introduction
"…leases the City's ***mineral rights*** *underlying the Whittier Main Field…subject to a* ***conditional use permit (CUP)*** *and* ***numerous contractual provisions****, Matrix* ***could have certain rights****, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons from the land…"* ***p.1-1*** WilliamsCT-4

Inclusion of the Authority within the discussion even only as the City's operator for the Preserve avoids the clear and objective reasoning of how the Authority and City will establish and implement the conditional use permit requirements and the MMRP.

5. Environmentally Superior Alternatives

An alternative would be considered superior…reduction in impact classification…in the same class as for the proposed Project, differences in severity of the impact are analyzed. p.6-31

An Environmentally Superior Alternative should be considered outside of the existing Preserve Area, in or amongst already developed urban areas, but still within the City of Whittier (large parking areas NE of the corner of MarVista and Colima. The platform would incorporate directionally drilled wells beneath and within the Authorities lease boundaries in the field, such drilling is commonly undertaken throughout southern California (e.g., island oil platforms offshore of Long Beach, Inglewood/Wilmington, Montebello fields, etc.), Such development would focus on existing disturbed areas and preserve the wildlife habitat, while allowing access to the "field". Operating oil/gas facilities can be merged with existing and surrounding facilities as they are done on the offshore islands of Long Beach, in southern portion of the central business district of the City of Los Angeles (Downtown Oil Field), and in the Wilshire/WestSide areas of the South Salt Lake field. WilliamsCT-5

Similarly, well drilling, reworking, and other activities are currently active in the west LA, downtown LA, and Long Beach Harbor areas from distant sites with little or no recognition of what activities are undertaken. Such facilities clearly demonstrate that the proposed project development is not as environmentally superior as those of other operating oil/gas fields in Los Angeles County.

6. Socieconomic Impacts

4.11.4 Project Impacts and Mitigation Measures
Apdx. H Socioeconomics, AECOM, ***August 6, 2010,*** *DRAFT Project Report, Socioeconomic Analysis for Whittier Main Oil Development Project,* ***Prepared for Marine Research Specialists, Ventura, CA***
Potential Level of Project Fiscal Benefit
The potential range of royalty payments paid to the City from Matrix oil will vary greatly based on actual production and the future market value of a barrel of oil (bbl). In this analysis, AECOM has relied on a production curve based on information provided by Matrix that varies from 1,000 to 10,000 barrels per day in year six with production will then declining modestly (less than 10%) throughout the remaining life of the project. p.H-62 WilliamsCT-6

Although the Appendix of the DEIR develops various issues regarding socioeconomic impacts the body of the DEIR does not assessed the economic impacts of natural preserve losses due to ongoing operations, construction, and fuel modifications required for the Project and the preserve support and the uses of the moneys to be derived from extraction of mineral resources of the Preserve.

Therefore the DEIR and several sections need revision and expansion as to what socio-environmental losses and what economic benefits will be realized and used for the Preserve vs the Whittier General Fund and the Authority support. Until such is provided the DEIR must be considered incomplete and inadequate.

7. Geology

4.4.1.3 Geological Resources
Bedrock
*The bedrock across the site consists of Fernando Formation,…with local fossil deposits…**These soils** are not susceptible to hydroconsolidation, but have a mild consolidation potential. p.4.4-6*

Although other sections and geological maps indicate surface outcrops of the Puente Formation the description of Bedrock here only refers to the Fernando and only just on the surface exposures, rather than a full description from the surface formations down to the "Basement" and or the full depth of fault zones stated to be on the surface, but extending well below the field.

Geological or cultural resources should included local fossil deposits which may include marine fishes, sharks, turtle, whales, dolphins, and manatees, in addition to shells and others. Bedrock is not soils and no Structural Geological Description is provided clearly indicating that the section is incomplete and inadequate

4.4.1.4 Geologic Hazards, Faulting and Seismicity, *Regional Seismicity*

The seismicity of southern California…The Project Area is subject to strong seismically induced ground shaking, as several active and potentially active faults are located in the region…blind thrust faults (as described below)…(i.e., reverse faults that have no surface exposure) responsible for the 1987 Whittier Narrows magnitude WilliamsCT-7

5.9 earthquake and the 1994 Northridge magnitude 6.7 earthquake (Shaw and Shearer 1999; Southern California Earthquake Data Center 2007)….overlies the Puente Hills blind thrust system, an active blind thrust fault system…at least three distinct segments…appears to overlie the Coyote Hills segment of the thrust fault…generated the 1987 Whittier Narrows earthquake. p.4.4-6 Surface rupture attributable to these deep seated, blind-thrust seismic sources does not appear to be likely within the Project Area, but the presence of these blind thrust faults will potentially contribute to strong seismically induced ground shaking (Heathcote Geotechnical 2011).

However, surface fault rupture is possible along the active Whittier Fault, located approximately 1,500 feet north of the Project Site and 1,500 feet northeast of the proposed pipeline alignment, at the closest point (California Geological Survey 2010)…Whittier Fault comprises the northernmost segment of the larger Elsinore Fault Zone, which extends across the Santa Fe Springs and Coyote Hills segments of the Puente Hills Thrust Fault…capable of generating a maximum earthquake of magnitude 6.0 to 7.2…No Alquist-Priolo Fault Zones are present within the Project Area.
p.4.4-7

Although as an oil/gas field project one would assume a deep and thorough knowledge of the geological stratigraphy and structure must be available and documented, no such information is provided. The entire section does not provide a thorough discussion of resources and constraints within the field down to its basement limits. Therefore this pivotal section must be considered as incomplete and totally inadequate for a project where activities maybe more than 5000ft below the surface “soils”.

8. Oil/Gas Fields Facilities and Systems

[4.4.3] Earthquakes and Petroleum Facilities
*Worldwide, earthquake performance at various types of petroleum facilities has been excellent from the standpoint of direct damage, but several significant instances of damage have occurred as a result of fire following an earthquake…fire occurred at failed storage tanks following the 1964 Alaska earthquake (magnitude 8.4)…1971 San Fernando earthquake (magnitude 6.4), in the northern Los Angeles area, damage to refineries in the vicinity of the epicenter was limited to internal piping and some storage tanks…**Tank piping often breaks when it does not possess sufficient flexibility.** Historically, while the spillage of oil has sometimes been considerable, these spills have not been serious when contained within dikes and kept free of ignition sources…. p.4.4-7*

The description and assessment of is generalized and not appropriate to the assessment of this field project. Pipelines connected to wellheads, bends/turns, valves, tanks and other dramatic different equipment, pipe vs pumps vs meters/valves and every connection can be restrained and contained but usually are not. Oil Field equipment and pipelines have many bends and connections and each represents a recognized point of failure and release of pressurized gas and toxic liquids. WilliamsCT-8

This whole section is incomplete and inadequate for assessment of risks and consequences of risks realized for this specific field and proposed field operating systems,

>>

The DEIR does not refer to the seismic effects on O&G facilities that may pass across transitions between different lithologies (e.g., shale vs sandstone) or different ground materials (e.g., "bedrock" vs soil vs compacted soils) and thereby may be subject to stronger differential movements.

The DEIR does not refer to subsidence due to production of oil and gas and eventual depressization of the field nor does it provide any information regarding the current O&G pressures, liquid levels, or gas compositions (sour vs sweet) in the field commercial and non-commercial zones (plays) nor the pressures information for anticipated producing zones and water zones.

As indicated above, this whole section is incomplete and inadequate for assessment of risks and consequences of risks realized for this specific field and proposed field operating systems, as the composition of gaseous release has not been characterized from current downhole field information. Similarly the gas composition of previously non-commercial zones has not been provided from any older field records and with higher prices for oil and heavier condensates many of the previously non-commercial zones may now be considered commercial and accessible.

Without characterization of current field conditions and compositions, the entire section regarding Mineral Resources and Health/Safety (and air quality) cannot be considered as complete nor adequate.

9. Mineral Resources

4.4.3

Regulations require well operators to maintain detailed records of abandonment operations and file copies…California Division of Oil, Gas, and Geothermal Resources regulates environmentally sensitive pipelines, which are defined under California Code of Regulations Section 1760 as:

- *A pipeline located within 300 feet of **any public recreational area [recognized on USGS topo map]**,…;*
- *A pipeline located within **200 feet of any officially recognized wildlife preserve or environmentally sensitive habitat**…;*
- *Any pipeline for which the Supervisor determines there may be a **significant potential threat to life, health, property, or natural resources**, in the event of a leak, or that has a history of chronic leaks; and*
- *California Code of Regulations, Title 14, Section 1774 requires a **pipeline management plan for environmentally sensitive** pipelines. p.4.4-17*

WilliamsCT-9

These conditions apply to the proposed project and the Habitat Preserve should be recognized as a "public recreation area" even though it may not have made it yet to a USGS topo map. Absence of clear assessment and mitigative provisions renders the DEIR incomplete or at least inadequate. As the project proponent has not characterized the crude oil and the field gas composition the potential threat remains

real and significant with a more probable sour (H2S) gas component found in most SoCal fields.

10. Public Safety

4.4.3

Regulations require well operators to maintain detailed records of abandonment operations and file copies…California Division of Oil, Gas, and Geothermal Resources regulates… p.4.4-17

The DEIR and mitigation avoids the specific responsibilities of City and County for the health and safety of the Public and environmental protection which can supersede responsibilities of the State (DOGGR) requirements. As indicated in the EIR process, the project area is currently NOT zoned for oil and gas development. The DOGGR oil field map for the area (Map 104) identifies unplugged, presumably idled, wells within or adjacent to the field and preserve area, and the DEIR section for "Mineral Resources" does not specifically state that the Field and all wells are abandoned and plugged.

As owner of the Mineral Rights beneath the Preserve, the City should have acquired all records for the Field at the time the City acquired the rights either through the previous owners and operators and/or DOGGR as part of due diligence. We can assume more than 200 wells were drilled by various means within the WM field, but only DOGGR records are limited to those where records are available of more recent, post 1940 – pre-2000. No affirmative evidence has been provided to demonstrate that the DOGGR requirements have identified and located all wells and therefore DOGGR requirements are not adequate nor complete to avoid adverse effects on the Public Health and Safety, Environmental Quality. No direct current information exists regarding the field and speculations regarding the pressures and sulfur content of oil and gases in the field are not founded in information from previously exploited zones or currently potentially commercial zones.

Historic, current, and potential future mineral development have and will cause risks to Public safety and health as experienced at the Salt Lake, Inglewood, Wilmington, and Montebello Fields

Hazards remain unmitigated and venting of an unknown number of known and unknown wells does not provide adequate hazard reductions and safety provisions in light of the rising commercial aspects for the potential mineral resources within the Project area. WilliamsCT-10

Similarly the fresh/formation water contacts in fields are highly variable and are not typical of those where thick layers of alluvium bury oil fields (e.g., Wilmington and Salt Lake Fields) and plugs may be arbitrarily set at a presumed and DOGGR-accepted depth.

Uniform plugging depths in the WM Field is arbitrary and not reasonable control of the formations and protection of surface development and

Many abandoned wells have "leaked" in the Salt Lake, Inglewood, Montebello, and Playa del Rey fields and thus "abandonment" systems are known to fail and may lead

to serious problems at the surface (e.g., 1985, Ross Dress-for-Less Store explosion and injuries in the Salt Lake Field of LA City and more recent abandonment of houses in Montebello due to Southern California Gas Storage Facilities releases).

Based on the absence of information provided, the Public Safety and Health cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on public safety, health, and environmental quality.

11. DOGGR Requirements for Development

DOGGR's requirements for wells and field abandonment directly relate only to those wells which have been recorded within their data bases, excluding historic information sources of senior citizens/field workers, heirs, and surface and early aerial photography. Due to the antiquity of the WM field, the adequacy of the DOGGR data base and locations of wells cannot be considered complete nor adequate for assessment and mitigation based on some methods of scraping the surface of the ground. Real mitigation requires a full and comprehensive relocation of wells through photographic analysis and interviews of local historian and workers.

Previous environmental documents have not thoroughly and comprehensive reviewed historic information to truly establish the actual locations and numbers of wells drilled before 1945 and DOGGR's earliest records for the field.

Placement of collars/casings over the known wells and extending through the fill earthworks and above the surrounding structures may resolve potential for hydrocarbon and sulfurous gases impacts on the safety of surface development but does not reflect the true nature of the high probability of older wells being left uncontrolled beneath a compacted land fill with structures or the structures themselves. WilliamsCT-11

Furthermore, DOGGR has specific responsibilities for drilling and production of oil and gas but only some ill-defined relationships between the "freshwater" and the "Formation" waters without regard to actual groundwater conditions in the rock and alluvial deposits. DOGGR has few responsibilities and poorly defined requirements for general surface health and safety and environmental protection, and these are generally activated only when spurred by other agencies.

Based on the absence of information provided, the subsurface water quality resources, public Safety and Health cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on public safety, health, and environmental/water quality.

12. Well Abandonment

DOGGR's requirements for "abandoning" wells are established based on very simple elements of geology and do not reflect even typical modern oil field and well practices. Three cement plugs (maximum total length of say 500ft) and intervening drilling mud are standard materials used for abandoning wells of say 4000ft. Thus,

less than 10% of any well may be sealed with cement including the production zone (e.g., 200ft), the bedrock formation water/alluvial fresh groundwater interface (e.g., 200ft), and 50-100ft of plug for the surface. The remainder of the well is left opened but filled with "drilling mud" which may eventually separate and settled out to the tops of the underlying cement plugs.

Current DOGGR plugging practices reflect a "layer-cake" geologic framework which is not found in most Southern Californian fields. The geology of Southern California is far more complicated than those of central California, Texas, and central US where the above abandonment system may be effective. High-angled folded and fractured formations in the WM Field both provided typical traps for accumulation of oil in commercial quantities and more importantly, controlled migration of oils and gases without respect to the typical simple three-part abandonment system. In the oil field, formations may be inclined so that a productive zone for one well may intersect another well at a very different depth and may not be commercially viable in the other well; cement-plugged units of one well may only be plugged with drilling mud in another well.

Although fractures and faults may not be designated as "active" for seismic structural analyses, faults and fractures are widely known to release oil and gas at the surface or into the alluvium overlying a fractured oil bearing formation (e.g., Rancho La Brea, oil seeps along the Ventura Coast, and the McKittrick tar pits/fields/Kern Co.). Oils and gases at the surface have migrated along fracture zones or along somewhat permeable formations from the sources 100s-1000s feet deep below their surface accumulations.

WilliamsCT-12

The WM Oil Field has included many formations which although they contained oil and gas they were not considered of commercial value for the field operator. Where not produced from, their pressures may be very different from those of the commercially producing formations which are sealed by cement plugs during abandonment. Although of no commercial value, such formations can be of safety concern as they would not be abandoned with cement plugs and provide gas migratory pathways.

Based on the absence of information provided, the Public Safety and Health cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on public safety, health, and environmental quality.

13. Risks and Hazards

4.3 Safety, Risk of Upset, and Hazardous Materials

*"The lowest rates are assumed to correlate to facilities that have **less- or non-corrosive** service and the **highest standards of maintenance**. The proposed Project facilities were **assumed** to be new with **less- or non-corrosive** service because they are **associated with relatively sweet gas, rather than very sour gas**. p.4.3-11*

The DEIR preparer failed to provide the typical O&G quantitative characterizations of API, sulfur content, or H2S levels in gas and oils and use of "Assumed to be…less- or

WilliamsCT-13

non-corrosive…relatively sweet gas,…very sour gas." render the statements meaningless at best and could be interpreted as inexperienced or purposefully unobjective.

Based on the absence of quantitative information, the Public Safety and Health cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on public safety, health, and environmental quality.

14. Mineral Resources

The current Mineral Resources of the WM Project area were not fully documented and assessed in environmental documents, but these resources issues relate to the potential for production venting of field gases from the oil and gas bearing formations and potentially through the facilities and the structure overlying wells and fractures of the original deposits.

The field produced considerable oil and released gas throughout its previous commercial operations. As field pressure decreased, secondary field development commenced and continued the life of the commercial plays within the surface area. Increasing oil and perhaps gas prices and new geophysical methods of locating and production methods of recovering stranded and isolated plays has rejuvenated interests in mineral resources of the field and its related pipelines and generated the Project. WilliamsCT-14

Once idled, the relevant formations would be expected to experience in-migration of liquids and gases from surrounding formations and generally be expected to re-pressurize the earlier exhausted formations or plays (at say 500psi) to approximately their original field pressures (e.g., 4000ft depth, about 1600psi).

Based on the absence of quantitative and current information, the Mineral Resources cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on efficient and sustainable use of the WM field and the mineral resources therein.

15. Mineral Development an d Land Use/Local Controls
4.15 Energy and Mineral Resources
4.15.2.3 Local
The City's Zoning Ordinance (Article II, Chapter 18.52, Conditional Use Permits) allows oil and gas exploration and production drilling with a Conditional Use Permit in all zone districts…On November 24, 1970, the City of Whittier adopted Resolution 4302, establishing specific regulations of oil and gas production and exploration facilities in the City. p. 4.15-8

WilliamsCT-15

The County of Los Angeles and Culver City have formed a Community Standard District for the Inglewood/Baldwin Hills Oil Field development and production which has been recognized by the field operator, Plains Exploration and Production (also operator for the Montebello Field, west of the Whittier Narrows and the WM Field. This should be referenced and incorporated into the Whittier DEIR.

16. Sustainable Mineral Development

The significance criteria have been adapted from the CEQA checklist provided as part of CEQA Guidelines. A significant impact would occur if the Project would:
• Decrease the availability of a known energy or mineral resource that would be of value to the region and the residents of the State;
• Use non-renewable energy resources in a wasteful or inefficient manner;… p.4.15-9

Proposed development of 57 production wells and 8 injector wells without further information as to operations and potential enhanced recovery and reserves cannot affirm that the mineral resources will provide the residents of California and Whittier with appropriate value for the decreased availability of the resources. As these resources are finite and not renewable, their production will decrease those available for future generation and thereby appears to impact on this parameter at a significant level. No information is provided regarding the total resources of the area and their potential long-term value to Whittier and Los Angeles County. WilliamsCT-16

Based on the absence of quantitative and current information, the Mineral Resources and potential impacts and their significance cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on efficient and sustainable use of the WM field and the mineral resources therein.

17. Mineral Resources Impacts and Mitigation

4.15.4 Project Impacts and Mitigation
The oil field development treat oil and gas from field wells and then send the treated petroleum materials to the refineries where diesel fuel would be produced along with other oil products. The oil field development would consume only a fraction of the oil produced from the field wells…future development would be a net producer of petroleum-based fuels…The future oil field development would produce and treat natural gas…potential oil field development would result in a net increase in natural gas available the area. p.4.15-10

4.15.6 Cumulative Impacts and Mitigation Measures WilliamsCT-17
The cumulative projects…None of these projects would contribute to unacceptable strains on the energy supply in the area. Therefore, there would be no significant cumulative impacts. p.4.15-10

No information is provided to verify any projections of production for long-term sustainability and depletion of the mineral resources and therefore with the absence of quantitative and current information, the Mineral Resources impacts cannot be affirmed or assessed and thereby current discussion must be deemed incomplete and inadequate with a high potential of as yet ill-defined risks or significant consequences and adverse effects on efficient and sustainable use of the WM field and the mineral resources therein.

18. Impacts and Mitigation Plan

4.15.7 Mitigation Monitoring Plan *No mitigation measures are proposed. p.4.15-10*

Other agencies within the County of Los Angeles have encountered similar conditions and activities for Mineral Resources and have organized such mitigation for oil/gas exploration and production projects through the "Community Standards District" (recently completed and implemented for the Inglewood/Baldwin Hills Oil Field and District). WilliamsCT-18

The DEIR does not discuss this approach and its importance with the DEIR's Sections 4.15 and 8. Therefore the Section 4.15 must be considered as incomplete and inadequate for the development of an environmentally sound and objective assessment and mitigation of oil/gas development and production within the County of Los Angeles.

Jeff Adams

From: Tom Williams [ctwiliams@yahoo.com]
Sent: Thursday, July 21, 2011 4:39 PM
To: Jeff Adams
Subject: Initial Comments for Whittier Main Field DEIR
Attachments: WhittierHillsProjComments0612111.doc

JAmes Adams
City of Whittier

RE: Comments on Whittier Main Field DEIR
Initial Comments

More to come by/before 8am 22 July

Dr. C. T.Williams
NELA Coalition

Whittier Project - DEIR AND CONDITIONAL USE PERMIT ISSUES

0. Format – *Quotes with section and page numbers from DEIR in italics, with emphasis on* ***key word or phrases bolded/unlined*** *subject to* comments given immediately below the relevant quotes without italics, bolding, underlining.

1. City and County Plans and MMRP

WilliamsT-1 Other agencies within the County of Los Angeles have encountered similar conditions and activities and have organized such oil/gas exploration and production projects through the "Community Standards District" (recently completed and implemented for the Inglewood/Baldwin Hills Oil Field and District).

The EIR does not discuss this approach and its importance with the DEIR's Section 8. Therefore the Section 8 must be considered as incomplete and inadequate for the development of an environmentally sound and objective assessment and mitigation of oil/gas development and production within the County of Los Angeles.

2. MMRP

8.0 Summary of Mitigation Measures and Mitigation Monitoring Plan
8.1 Mitigation Monitoring Program
8.2 Monitoring Authority and Enforcement Responsibility

The purpose of a Mitigation Monitoring, Compliance, and ***Reporting*** *Program (MMCRP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. p.8-1*

WilliamsT-2 The entire section is generalized, vague, and does not provide information indicated would be in the Section 8 tables; therefore this Section can be deemed incomplete and inadequate for the DEIR.

The "Mitigation Monitoring and Reporting Plan" (MMRP) as stated in the various documents has not been provided as a brief draft in Section 8 of the Draft Environmental Impact Report (DEIR) and would presumably be updated as part of the Final EIR (FEIR).

The assignment of responsible units does not identify the City, Authority, or County departments responsible for the implementation, assessment of adequacy of mitigation to less than significant, monitoring, and reporting. Although Reporting is mentioned, reports can only be available upon request without knowing what and when any "report" may become available – not by way of Public Record Act requests but within special section of the City Library and web pages.

8.5 Mitigation Monitoring Table

Tables…present a summary of monitoring and ***reporting plan requirements*** *for the mitigation measures…applicable to the proposed Project. The Table provides the following information: p.8-3*

No reporting is indicated in any table sections and no unit is assigned as to receive of requests for reports. All such reporting and other activities of a MMRP are well founded in the Community Standard District approach of the County of Los Angeles.

Furthermore within the Counties of Los Angeles and Orange, numerous gas/oil facilities are operating without visual, odor, noise, and other impacts which were ascribed to the drilling activities of this report, for example in Downtown Los Angeles City, Pico/Wilshire, and Long Beach Harbor.

Therefore the summary tables of mitigation are incomplete and inadequate. If such are inadequate or incomplete, then the underlying Sectional mitigation discussion must be considered as incomplete and inadequate and revised for a fully objective and uptodate assessment of impacts and mitigation as for landuses and air quality.

4.11.4 Project Impacts and Mitigation Measures
Residual Impacts
WilliamsT-3 *The residual impacts would be less than significant with mitigation.*

Impact #	***Impact Description***	***Phase***	***Residual Impact***
LU.3	*Views of drilling rigs, construction, and potential future operations could be incompatible with adjacent land uses.*	*Drilling, Construction, Operations*	*Significant and Unavoidable*

p.4.11-21

Indirect Issues

3. Air Quality

Methane gas is a recognized GHG which is considered as more potential in it effects on the climate and warming than simple CO2. South Coast Air Quality Management District (SCAQMD) has and does not control or manage releases of methane for "air pollution" or as "volatile organic carbon" gases and will/may eventually control methane releases via the GHG requirements.

WilliamsT-4 As the venting mitigation measures for well casings and other sources would release unknown quantities of methane to the atmosphere, estimated volumes for an assumed number of vents should have been included and compensated either by incineration treatment of the releases, reducing from methane to CO2, or by other measures (e.g., collection and use) as part of the "Sustainability Plan" for GHGs.

References to "minimal" or "insignificant" are unreasoned and unreasonable responses to the Public's comments of concern regarding methane contributions to GHG and the health and safety for occupants and residents of a future project.

"AQMD Plans"
Simple reference to future approved plans does not provide the Public and decision makers with the designated responsibilities, accountabilities, and financial capabilities of the responsible parties for implementing the mitigation and GHG controls to achieve the required levels of reductions or compensations to reduce accepted and recognized mitigation below the levels of "significance", the monitoring of venting and DOGGR and SCAQMD compliance, and reporting and approvals of reports within the Public participation and information processes.

Undefined "Plan" documents without drafts, outlines, requirements, "scopes of work", etc. do not provide required public participation in the decision making processes and lead to unobjective and arbitrary discretionary decisions.

City, County, and State Responsibilities and Jurisdictions

"Plans" require specific assignment, schedules, and acceptance of responsibilities/jurisdictions and financial supports within the Federal, State, County, and City agencies; as indicated by numerous recent examples, these responsibilities and supports must be specifically and reasonably assigned without unsupported references for success at sometime in the future in light of the ill-defined operations of the petroleum field, as either abandoned, to-be abandoned, idled, or to-be operated. These specific items must be developed, compiled in standard tabular forms, and presented for Public review, considerations, and comments prior to the discretionary decisions being made.

4. Puente Hills Landfill Native Habitat Preservation Authority

1.0 Introduction

WilliamsT-5 *"...leases the City's **mineral rights** underlying the Whittier Main Field...subject to a **conditional use permit (CUP)** and **numerous contractual provisions**, Matrix **could have certain rights**, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons from the land..." **p.1-1***

Inclusion of the Authority within the discussion even only as the City's operator for the Preserve avoids the clear and objective reasoning of how the Authority and City will establish and implement the conditional use permit requirements and the MMRP.

5. Environmentally Superior Alternatives

An alternative would be considered superior...reduction in impact classification...in the same class as for the proposed Project, differences in severity of the impact are analyzed. p.6-31

An Environmentally Superior Alternative should be considered outside of the existing Preserve Area, in or amongst already developed urban areas, but still within the City of Whittier (large parking areas NE of the corner of MarVista and Colima. The platform would incorporate directionally drilled
WilliamsT-6 wells beneath and within the Authorities lease boundaries in the field, such drilling is commonly undertaken throughout southern California (e.g., island oil platforms offshore of Long Beach, Inglewood/Wilmington, Montebello fields, etc.), Such development would focus on existing disturbed areas and preserve the wildlife habitat, while allowing access to the "field". Operating oil/gas facilities can be merged with existing and surrounding facilities as they are done on the offshore islands of Long Beach, in southern portion of the central business district of the City of Los Angeles (Downtown Oil Field), and in the Wilshire/WestSide areas of the South Salt Lake field.

Similarly, well drilling, reworking, and other activities are currently active in the west LA, downtown LA, and Long Beach Harbor areas from distant sites with little or no recognition of what activities are undertaken. Such facilities clearly demonstrate that the proposed project development is not as environmentally superior as those of other operating oil/gas fields in Los Angeles County.

6. Socieconomic Impacts

4.11.4 Project Impacts and Mitigation Measures

WilliamsT-7 *Apdx. H Socioeconomics, AECOM, **August 6, 2010,** DRAFT Project Report, Socioeconomic Analysis for Whittier Main Oil Development Project, **Prepared for Marine Research Specialists, Ventura, CA***

Potential Level of Project Fiscal Benefit

The potential range of royalty payments paid to the City from Matrix oil will vary greatly based on actual production and the future market value of a barrel of oil (bbl). In this analysis, AECOM has relied on a production curve based on information provided by Matrix that varies from 1,000 to

10,000 barrels per day in year six with production will then declining modestly (less than 10%) throughout the remaining life of the project. p.H-62

Although the Appendix of the DEIR develops various issues regarding socioeconomic impacts the body of the DEIR does not assessed the economic impacts of natural preserve losses due to ongoing operations, construction, and fuel modifications required for the Project and the preserve support and the uses of the moneys to be derived from extraction of mineral resources of the Preserve.

Therefore the DEIR and several sections need revision and expansion as to what socio-environmental losses and what economic benefits will be realized and used for the Preserve vs the Whittier General Fund and the Authority support. Until such is provided the DEIR must be considered incomplete and inadequate.

7. Geology

4.4.1.3 Geological Resources
Bedrock
*The bedrock across the site consists of Fernando Formation,...with local fossil deposits...**These soils** are not susceptible to hydroconsolidation, but have a mild consolidation potential. p.4.4-6*

WilliamsT-8 Although other sections and geological maps indicate surface outcrops of the Puente Formation the description of Bedrock here only refers to the Fernando and only just on the surface exposures, rather than a full description from the surface formations down to the "Basement" and or the full depth of fault zones stated to be on the surface, but extending well below the field.

Geological or cultural resources should included local fossil deposits which may include marine fishes, sharks, turtle, whales, dolphins, and manatees, in addition to shells and others. Bedrock is not soils and no Structural Geological Description is provided clearly indicating that the section is incomplete and inadequate

4.4.1.4 Geologic Hazards, Faulting and Seismicity, *Regional Seismicity*

The seismicity of southern California...The Project Area is subject to strong seismically induced ground shaking, as several active and potentially active faults are located in the region...blind thrust faults (as described below)...(i.e., reverse faults that have no surface exposure) responsible for the 1987 Whittier Narrows magnitude 5.9 earthquake and the 1994 Northridge magnitude 6.7 earthquake (Shaw and Shearer 1999; Southern California Earthquake Data Center 2007)....overlies the Puente Hills blind thrust system, an active blind thrust fault system...at least three distinct segments...appears to overlie the Coyote Hills segment of the thrust fault...generated the 1987 Whittier Narrows earthquake. p.4.4-6 Surface rupture attributable to these deep seated, blind-thrust seismic sources does not appear to be likely within the Project Area, but the presence of these blind thrust faults will potentially contribute to strong seismically induced ground shaking (Heathcote Geotechnical 2011).

WilliamsT-9

However, surface fault rupture is possible along the active Whittier Fault, located approximately 1,500 feet north of the Project Site and 1,500 feet northeast of the proposed pipeline alignment, at the closest point (California Geological Survey 2010)...Whittier Fault comprises the northernmost segment of the larger Elsinore Fault Zone, which extends across the Santa Fe Springs and Coyote Hills segments of the Puente Hills Thrust Fault...capable of generating a maximum earthquake of magnitude 6.0 to 7.2...No Alquist-Priolo Fault Zones are present within the Project Area. p.4.4-7

Although as an oil/gas field project one would assume a deep and thorough knowledge of the geological stratigraphy and structure must be available and documented, no such information is provided. The entire section does not provide a thorough discussion of resources and constraints within the field down to its basement limits. Therefore this pivotal section must be considered as incomplete and totally inadequate for a project where activities maybe more than 5000ft below the surface "soils".

8. Oil/Gas Fields Facilities and Systems

[4.4.3] Earthquakes and Petroleum Facilities
Worldwide, earthquake performance at various types of petroleum facilities has been excellent from the standpoint of direct damage, but several significant instances of damage have occurred as a result of fire following an earthquake…fire occurred at failed storage tanks following the 1964
WilliamsT-10 *Alaska earthquake (magnitude 8.4)…1971 San Fernando earthquake (magnitude 6.4), in the northern Los Angeles area, damage to refineries in the vicinity of the epicenter was limited to internal piping and some storage tanks…**Tank piping often breaks when it does not possess sufficient flexibility.** Historically, while the spillage of oil has sometimes been considerable, these spills have not been serious when contained within dikes and kept free of ignition sources…. p.4.4-7*

The description and assessment of is generalized and not appropriate to the assessment of this field project. Pipelines connected to wellheads, bends/turns, valves, tanks and other dramatic different equipment, pipe vs pumps vs meters/valves and every connection can be restrained and contained but usually are not. Oil Field equipment and pipelines have many bends and connections and each represents a recognized point of failure and release of pressurized gas and toxic liquids.

This whole section is incomplete and inadequate for assessment of risks and consequences of risks realized for this specific field and proposed field operating systems,

MORE to come before opening of business Friday July 22

Appendix M

Responses to Individuals' Comments

Whittier Main Oil Field Development Project
Revised Environmental Impact Report
Public Draft Comments
Individuals

Elise Abrego

Comment #	Response
AbregoE-1	No specific comment is included on the Draft EIR and, therefore, no response is provided. While revenue allocation is an objective of the Project, how the funds would be used is outside the scope of the EIR.
AbregoE-2	All drilling would occur at one drilling pad on top of three well cellars on the same drilling pad, and all impacts would occur at this one location. The Draft EIR analyzes these impacts, which includes the clustering referenced in the comment.
AbregoE-3	The comment is not specific to the Draft EIR and, therefore, no response is provided.
AbregoE-4	The cost of mitigation measure oversight is outside the scope of the Draft EIR. However, it should be noted that typically compliance costs are covered by the Applicant.

Daniel Aldama

Comment #	Response
AldamaD-1	The SCAQMD would issue permits for the Project. The Draft EIR was provided to the SCAQMD along with the spreadsheets and modeling files. The SCAQMD has provided comments on the air quality analysis and these have been incorporated into the Final EIR.
AldamaD-2	Chemicals injected into the well bore would not be reported to the SCAQMD. Chemicals proposed to be used by Matrix are listed in the Project Description, Section 2.
AldamaD-3	The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project Site or within the Landfill. Penn Street would only be utilized for through traffic from and to the Landfill. There is no plan for tree removal. There would be some impacts to street congestion, but Section 4.7, Transportation and Circulation, determined that the levels of congestion would be below the significance criteria and that the level of service would be acceptable. Section 4.1 discusses air quality issues related to the park and mitigation measures proposed to reduce impacts.
AldamaD-4	The traffic counts were conducted along Penn Street and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR. Mitigation measure T-1f requires the development of a longer term traffic monitoring plan in order to assess the levels of traffic that could be generated by events at the College or the park and thereby coordinate with the Project construction traffic. Note that operational traffic would only be a small fraction of the traffic along Penn Street.

Comment #	Response
	This is standard method for estimating traffic impacts. Limited time periods of observation are used because a typical time period is used for measurement and gives sufficient general information to extrapolate impacts for analysis.
AldamaD-5	Although the Project could have negative impacts on the Preserve, there is no evidence that the damages done by the Project would be irreversible. In fact, for many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling, in a small area, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter. In addition, funds would be available from the Project which would go towards future Preserve support and maintenance.
AldamaD-6	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.

Patricia and Raul Almada

Comment #	Response
AlmadaPR-1	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest

Comment #	Response
	volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.
AlmadaPR-2	Appendix H, Socioeconomics, discusses property values and finds that property values for the nearest residents to the Project would only be marginally affected if at all. In addition, other cities, such as Beverly Hills, that have benefitted from oil royalties typically see an increase in property values due to higher expenditures on City services, landscaping and beautification projects that drive up the desirability of an area.

Lonny Anthony

Comment #	Response
AnthonyL-1	Comment in opposition of the proposed Project is acknowledged. No specific comment is provided on the Draft EIR and no additional response is provided.

James Arehart

Comment #	Response
ArehartJ-1	Section 4.5, Noise and Vibration, examines noise levels that could be generated by construction, drilling and operations. During periods of the proposed Project, noise levels would not exceed the thresholds with mitigation. However, even noise levels below the thresholds would still be heard at nearby residences and the school. The effects of the terrain have been included in the noise modeling, as exemplified by the noise contours shown in Section 4.5. The noise models have been extensive field-verified with drilling projects, including the current drilling ongoing at the Baldwin Hills Oilfield.
ArehartJ-2	Section 4.6, Aesthetics and Visual Resources, discusses aesthetics and includes several photo simulations of the Project appearance from various locations. The drilling rig would be the most visible Project component; the rig would be in operation for 3 months during testing, for 5 years during development drilling, and periodically for 3 months per year thereafter. The drilling rig would be visible to some residences, but most other equipment would not be visible from residences. However, the drilling rig and facilities would be more clearly visible from trails within the Preserve. The flare would be enclosed so no open flame would be visible. During normal operations, the flare would not burn.

Comment #	Response
	Visual impacts are determined to be significant and unavoidable in the Draft EIR. The EIR takes into account all of this information, particularly the impact on the entire community, not any particular residence. For Holmes Circle, the drilling rig and equipment would not be visible. However, as discussed in Section 4.6, traffic would be visible along the North Access Roadway.
ArehartJ-3	The Final EIR analyzes the risks of cancer or exposure to acute or chronic toxins from Project drilling and operations according to established requirements of the South Coast Air Quality Management District for determining impacts. With the mitigation measures in Section 4.1, Air Quality, risk levels would be less than significant. Oil drilling can produce unpleasant odors if appropriate mitigation measures are not implemented. Drilling at the Baldwin Hills Oil Field created offsite odors that generated several mitigation measures through a special Community Services District. Lessons learned from that experience are included in mitigation measures, which require ambient air monitoring and engineering controls, such as systems to route odors to flares and monitor tank relief valves. The SCAQMD considers a facility to create a "nuisance" and therefore be a significant impact, if it generates more than six odor events per year. With mitigation, the facility would produces less than six events per year, which would thus be less than significant. Noise impacts are discussed in section 4.7 of the DEIR and, with mitigation, impacts would be less than significant. Appendix H, Socioeconomics, examines real estate values for homes proximate to the Honolulu Terrace Drilling Project and the impacts on property values were considered to be marginal or nonexistent.
ArehartJ-4	The flare would be enclosed so no open flame would be visible. During normal operations, after the testing and construction phases, the flare would not burn regularly as the gas would be processed and sold instead of burned in the flare.
ArehartJ-5	The Project would have an effect on the area's ecosystem. However, impacts to biological resources, including those species mentioned in this comment, would be reduced to less than significant with the implementation of proposed mitigation and the resources in the valley would not be irreversibly damaged. Please note that 30 years ago when the commenter moved to the area, there was substantial oil and gas drilling and production activities at the site. Far more than what is contemplated under the proposed Project.

Marilyn Avila

Comment #	Response
AvilaM-1	The last paragraph of the discussion of impact GR.1 acknowledges the comment by stating, "As discovered during the 1971 San Fernando earthquake and the 1994 Northridge earthquake, existing building codes are often inadequate to completely protect engineered structures from hazards associated with large ground accelerations. Therefore, potential seismic impacts and associated damage to structures from a major earthquake on the nearby Whittier Fault, Puente Hills thrust fault, or any other regional fault, would be considered significant." Mitigation measures GR-1a through GR-1g would reduce these significant impacts to less than significant levels.

AvilaM-2	Comment in opposition of the proposed Project is acknowledged. No specific comment is provided on the Draft EIR and no additional response is provided.

David Ayala

Comment #	Response
AyalaD-1	The comment in opposition to the proposed Project is acknowledged. No specific comment is provided on the Draft EIR and no additional response is provided. Additionally, Appendix H, Socioeconomics provides an analysis of the proposed Project's impact on property values and finds the impacts on property values to be marginal or nonexistent.
AyalaD-2	The Project would have an effect on the area's wildlife. The Draft EIR clearly states that wildlife would be affected by the Project. However, impacts to biological resources, including the wildlife mentioned in this comment, would be reduced to less than significant with the implementation of proposed mitigation measures.

Jesse Ayala

Comment #	Response
AyalaJ-1	Comment in opposition of proposed Project is acknowledged. No specific comment is provided on the Draft EIR and no additional response is provided.
AyalaJ-2	The Project would have an effect on the area's wildlife. The Draft EIR clearly states that wildlife would be affected by the Project. However, impacts to biological resources, including the wildlife mentioned in this comment, would be reduced to less than significant with the implementation of proposed mitigation measures.
AyalaJ-3	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant as per the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site comes primarily from diesel exhaust from trucks on area roadways, as per the MATES studies; the cancer risk total 810 cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.

Raymond Ayala

Comment #	Response
AyalaR-1	The Project would be disruptive on the area's wildlife. The Draft EIR clearly states that wildlife would be affected by the Project. However, impacts to biological resources including the wildlife mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation.
AyalaR-2	Trucks would primarily access the site through Penn Street, which currently has truck traffic related to the Landfill. After the construction phase, truck traffic would average two to six trucks per day along Penn Street, which was found to be less than significant and would increase noise only marginally and would not generate significant impacts.

AyalaR-3	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the Project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. Localized air impacts and air impacts related to health risk would be mitigated to less than significant. With respect to the "lost acres" referenced, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the \Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District. The Project would be disruptive on the area's wildlife. The Draft EIR clearly states that wildlife would be affected by the Project. However, impacts to biological resources including the wildlife mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation.

Ben Baeder

Comment #	Response
BaederB-1	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The traffic counts were conducted along Penn and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained directly from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR. Mitigation measure T-1f, requiring coordination with Whittier College, would only apply during the construction period as there could be a substantial increase in trucks during the construction period. During operations, truck trips would only be a small fraction of the total trips on Penn Street and impacts would be less than significant. The existence of special events, referenced in the comment, at Penn Park would not change this conclusion.

Comment #	Response
BaederB-2	Section 4.3 discusses impacts due to truck accidents and subsequent spills. Crude oil would create primarily an environmental impact, similar to a diesel fuel spill. Additional mitigation has been added to address driver spill response training and the availability of spill kits to ensure proper driver preparedness and ensure impacts are less than significant.
BaederB-3	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the Project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. Construction noise is generally excluded from noise codes. The noise section of the DEIR includes more conservative criteria for assessing noise than the City Code and there is no basis for any claim of bias by reference to the City's noise requirements in the DEIR, which is not used for analysis and is applied equally to all in the City. The noise analysis in the DEIR accounts for increases in noise levels of 3-5 dBA. However, along Penn Street during operations, there would only be two to six trucks per day and this would minimally increase the noise level in the area and impacts would be less than significant.
Baeder-4	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. In addition, the impact to this route is insignificant.

Mary Ellen Basulto

Comment #	Response
BasultoME-1	Comment in opposition of the proposed Project is acknowledged. Mitigation Measures designed to reduce potential negative impacts are identified and discussed in the individual sections within the EIR. No specific comment is provided on the Draft EIR and no additional response is provided.

Shannon Bonner

Comment #	Response
BonnerS-1	The comment is not relevant to the scope of the Draft EIR and, therefore, a response is not provided.
BonnerS-2	The Draft EIR discusses the procedure that would take place if the test wells are found to be not productive. Page 2-17 of the Draft EIR states "If the Project delineation and exploratory phases do not produce the level of production that the applicant deems economically feasible, then decommissioning of the installed equipment would take place. Decommissioning would involve removal of the temporary test equipment and the drilling equipment, if not previously removed. The number of truck trips and associated level of effort would be approximately equal to those required to install the equipment. Decommissioning would include abandonment of wells according to DOGGR requirements. Matrix, under its lease with the City, is required to restore the site to its original condition, including filling sumps, remediation of contamination, regrading, and revegetation."

Comment #	Response
BonnerS-3	The comment is not relevant to the scope of the Draft EIR and, therefore, a response is not provided. There is a requirement in the lease agreement for remediation at Matrix's expense if Matrix were to abandon the wells. In addition, the lease requires establishment of a remediation fund or provision of a bond to ensure that funds are available to provide for well abandonment or remediation.
BonnerS-4	No trees would be removed and parking would not be affected along Penn Street. Penn Street would only be utilized for through traffic from and to the Landfill. There would be some impacts to street congestion, but Section 4.7, Transportation and Circulation, determined that the levels of congestion would be below the significance criteria and that the level of service would remain acceptable.
BonnerS-5	Please see response to comment BonnerA-4.
BonnerS-6	The cost of road improvement would be the responsibility of the City Public Works Department, whose funding is tax based. The proposed Project would contribute taxes and revenue, part of which would be directed to Public Works Department for road repair. The Applicant would pay for some improvements as part of the mitigation program, for example, mitigation measures related to impact T-1 that include improving the intersection of Catalina Avenue and Mar Vista Street and monitoring and improvement of roadway conditions.
BonnerS-7	In general, any discussion of a seismic event should first consider the magnitude of the earthquake and the proximal distance to the event to consider the effects of ground rupture and the direct and secondary effects of groundshaking. Loma Prieta (1989) and Northridge (1994) illustrated the adverse effects of other conditions such as basins, topography, microzonation, and site amplification. Section 4.4.1.4, Geologic Hazards, summarizes the potential effects in the area observed from other strong to severe seismic events, including the Whittier Narrows earthquake. Oil spills are a risk from earthquakes and seismic events. Existing regulations require the Applicant to develop oil spill plans. Spill amounts are quantified in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. Pipelines crossing the site or crude oil storage tanks at the Processing Site could release crude oil. Some Project equipment would be within berms that would contain a spill. However, pipelines crossing the site would not be within berms and spills from those pipelines could impact the Preserve. Section 4.8, Hydrology and Water Resources, discusses this risk of an oil spill and identifies impact WR-5 as significant and unavoidable.
BonnerS-8	Existing regulations require the Applicant to develop oil spill plans. Spill amounts are quantified in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. Pipelines crossing the site or crude oil storage tanks at the Processing Site could release crude oil. Some Project equipment would be within berms that would contain a spill. However, pipelines crossing the site would not be within berms and spills from those pipelines could impact the Preserve. Section 4.8, Hydrology and Water Resources, discusses this risk of an oil spill and identifies impact WR-5 as significant and unavoidable.
BonnerS-9	Section 4.1, Air Quality, discusses particulate emissions, from combustion sources and fugitive dust (vehicle travel and grading and construction activities on dirt areas), utilizing South Coast Air Quality Management District and Environmental Protection Agency methods for estimating emissions. Mitigation measures AQ-1a through AQ-1c would reduce fugitive dust emissions. The HARP model estimates emissions from combustion sources and health impacts.

Comment #	Response
	Cancer risk levels due to diesel particulate matter were determined to be significant, but mitigation measures AQ-5a and AQ-5b would reduce them to less than significant. The proposed Project is limited to drilling a maximum of 60 wells. Section 4.1, Air Quality, discusses particulate emissions, from combustion sources and fugitive dust (vehicle travel and grading and construction activities on dirt areas), utilizing South Coast Air Quality Management District and Environmental Protection Agency methods for estimating emissions. Mitigation measures AQ-1a through AQ-1c would reduce fugitive dust emissions. Mitigation measures N-1a through N-1c, N-2a through N-2c, and N-4 would reduce noise during construction, drilling, and operations. However, noise levels at the East Well Site and at the Central Well Site during drilling and processing could still exceed thresholds and create significant and unavoidable impacts. Implementing an alternative that places the drilling activities farther from receptors would reduce these impacts. With these measures and alternatives, impacts would be less than significant, although noise from Project-related activities could still be heard. Drilling will not interfere with the groundwater aquifer drinking supply. The targeted oil sands layer is approximately 1,000 to 10,000 feet deep, which is far below the groundwater aquifer. Although a hole will be drilled through the aquifer to reach the oil sands layer, cemented steel casing will fill the drill hole to prevent inadvertent permeation. Oil that is brought to the surface from the oil sands will contain water; that water will be separated from the oil and then re-injected into the oil sands layer
BonnerS-10	Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet its goals and objectives. The proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City and City programs benefitting residents. It is anticipated that much of these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat. With respect to the loss of open space referenced, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the \Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement.
BonnerS-11	Section 2, Project Description, describes the details of the proposed Project, as presented in the application from Matrix. The application indicates that a maximum of 60 wells would be drilled. Emissions of particulate matter are described in Section 4.1, Air Quality, and could be reduced to less than significant with mitigation. Noise levels are described in Section 4.5, Noise and Vibration, and are considered to be significant, but mitigable.
BonnerS-12	Traffic is always a concern when directed through residential neighborhoods. The proposed Project includes use of a North Access Road into the Preserve, which would direct traffic onto Penn Street instead of using Catalina Avenue. However, other impacts would be realized with this approach, including impacts to biology. Measures to enhance safety along Catalina Avenue would include

Comment #	Response
	limiting parking on the east side of Catalina Avenue to ensure proper width for trucks and intersection enhancements as well as posting and enforcing speed limits.
BonnerS-13	Vehicle traffic to and from the Project site is detailed in Section 2, Project Description, Table 2-13 in the Draft EIR. These trucks would utilize various access routes. During operations, the peak day would generate up to six trucks per day. Section 4.1, Air Quality, includes an analysis of the particulate emissions from diesel trucks as well as the resulting health risks associated with diesel combustion, including a health risk of traffic along area streets. Risk levels were found to be within the acceptable criteria established by the SCAQMD.
BonnerS-14	The Proposed Project's access is currently proposed to be Penn Street to the Landfill and the North Access Road into the Preserve; the Draft EIR analysis of impacts to wildlife along the access road already takes the Landfill Road into consideration of impacts. Please see Section 2.0, Project Description and Section 4.2, Biological Resources.
BonnerS-15	The Draft EIR examines several issues that affect "quality of life", including noise, air quality, aesthetics, recreation, and traffic. Most of these issue areas have numerous mitigation measures applied, which would reduce the impacts substantially, and many to a level of insignificance. However, some impacts remain significant and unavoidable. These impacts are listed and discussed in the executive summary as well as Section 6 of the Final EIR. Impacts on socioeconomics are discussed in Appendix H separately.

Marta Borbon

Comment #	Response
BorbonM-1	Comment in opposition of the proposed Project is acknowledged. No specific comment is provided on the Draft EIR and no additional response is provided.

Lori Breitman

Comment #	Response
BreitmanL-1	The Upper Colima Road site is examined in the Draft EIR as an alternative site where the Applicant might be able to place the equipment instead of the proposed location. However, this alternative site was discarded for several reasons and would not be developed in the future under the plans that are addressed in this Draft EIR.
BreitmanL-2	At a minimum, the Loop Trail Road would be improved (slightly widened and most likely gravel laid down) and used only in the event of an emergency; under normal operations, it would never be used. However, it is identified in the Draft EIR as an alternative access route that might be selected for use by the City Council instead of using the North Access Road (through the Preserve to the Landfill) or Catalina Avenue. The use of the Loop Trail Road was found in the Draft EIR to have more impacts than the proposed roadways and was not selected in the Draft EIR as the preferred access route, but it could still be selected for the final configuration.
BreitmanL-3	Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance if the Project is approved should be addressed at the time of decision-maker consideration by the City. However, the EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process.

Comment #	Response
	Monitoring of air quality would be performed by the City and other agencies during the drilling activities. There are no plans for monitoring of groundwater as there is no specific risk to water from the normal operations of the Project.
BreitmanL-4	Up to 6 wells could be drilled at the proposed Project Site, as per the lease agreement, located about 1/3 of a mile into the Preserve from the Catalina Avenue gate. The comment erroneously refers to 600 wells.

Jeff Bucholz

Comment #	Response
BuchJ-1	Drilling operations should be placed 700 to 1,000 feet away from receptors, including homes and business and public areas. Drilling occasionally occurs in heavily urban areas, such as Beverly Hills High School. Wells will be placed with adequate distance from homes, businesses, and public areas. Other locations farther away from the proposed site may not be able to reach the projected oil reservoirs and would not be feasibly considered to economically recover the resources.

Brad Campbell

Comment #	Response
CampbellB-1	All comments by DMEC have been responded to in a separate part of this document.
CampbellB-2	Notices and time period for comment have been given as required by CEQA. Otherwise, no specific comment is included on the Draft EIR and, therefore, no response is provided.
CampbellB-3	The traffic analysis assumes a traffic distribution beyond Penn Street or beyond Catalina Avenue that causes impacts on many roadways and intersections, as identified. Section 4.7 of the Draft EIR examined 26 roadways and intersections throughout the City.
CampbellB-4	The Project's impact on the area's microclimate is expected to occur as to the affect on flora or fauna of the immediate area. Impacts to the area are discussed in the DEIR in relation to noise, loss of habitat, and disturbances to sensitive resources. These impacts generated mitigation measures for noise levels above 60 dBA, to control lighting spillover effects and to re-vegetate other areas within the Preserve to offset the habitat lost due to the facilities, fuel modification zones and graded areas. The impacts would be less than significant with mitigation.
CampbellB-5	The power poles and above-ground water pipelines would be utilized only during the testing and construction phases of the Project, which would be short-term and would have only temporary visual impacts. The Aesthetic Section examines impacts that would be longer-term, associated with 5 years of drilling and operations and drilling (for up to 3 months per year) for 20+ years. Therefore, impacts associated with power poles and other temporary equipment would be less than significant.
CampbellB-6	The alternatives included in the Draft EIR for full analysis included the No Project Alternative suggested by the comment, which is required by CEQA, and an alternative which would allow for access of the site from Colima Road (The Loop Trail Road alternative). The Loop Trail Road Alternative produced more significant and unavoidable impacts than the proposed Project, primarily due to the recreational resources located near Colima Road (hiking trails, etc).

Comment #	Response
	However, the decision makers could utilize the information in the EIR, and make a finding of overriding consideration to require the use of the Loop Trail Road or the use of Catalina Avenue only, even with the significant and unavoidable impacts. A reduced drilling alternative would still require drilling within the Preserve, the same amount of oil and gas processing equipment, the same period of construction activities and the same footprint of impacted habitat. The duration of drilling would be shorter, but peak noise levels, peak air emissions, peak traffic levels, and aesthetic impacts would all remain the same as the proposed Project. As levels of significance are based primarily on peak impacts, a reduced drilling alternative would produce the same number of significant and unavoidable impacts as the proposed Project and the same number of mitigation measures and would provide minimal advantages without achieving the objectives of the Applicant.
CampbellB-7	Appendix A of the Draft EIR and Table 2-13 include details on the number and types of vehicles that would access the site for the Project. Load weights would vary depending on the size and loads of trucks, but are regulated by CalTRANS. Truck weights and lengths could range up to the levels allowed by CalTRANS, or 80,000 lbs gross vehicle weight and lengths of up to 75 feet.
CampbellB-8	Mitigation is included in Section 4.7, Transportation and Circulation, to monitor and repair streets if impacts are determined to be attributable to the Project traffic paid for in part by revenue the City receives from the Project and in part from the Applicant.
CampbellB-9	Multiple alternative routes have been included in the Draft EIR, including the exclusive use of Catalina Avenue and the use of the Loop Trail Road.
CampbellB-10	The Draft EIR indicates that, according to CalTrans, if roadways are properly maintained, that vibration levels from vehicles would not cause disturbance. Mitigation measures have been included to monitor street condition, thereby reducing the potential for vibration impacts from vehicles. Other impacts from passing trucks, such as falling debris, is possible, particularly if haul trucks moving soil from the site are required to take Penn Street and not deposit their soil at the Landfill. Soil loads would be required to be covered by air and traffic regulations. Other trucks, such as tanker trucks, are fully enclosed and are not expected to have the potential for falling debris. This is an existing problem along Penn Street due to the level of trash trucks and other debris-laden vehicles that pass through Penn Street to the Landfill. No specific mitigation has been proposed to allow for compensation and the occurrence is not expected to increase to a level of significance above existing impacts from current use of these streets by trucks.
CampbellB-11	The air quality analysis developed in Section 4.1, Air Quality, includes the use of air quality modeling to assess the impacts of emissions on nearby residences (localized impacts and health risk impacts), according to AQMD procedures and requirements. This analysis indicates that impacts, with mitigation, would be less than significant.
CampbellB-12	A more detailed odor analysis, according to comments from the AQMD, has been added to the Final EIR. This analysis indicates that upset scenarios could cause impacts to area residences, but can be mitigated to below the AQMD threshold of six events per year. Routine odor emissions associated with fugitive emissions was shown to not produce odor impacts beyond a few hundred feet. The models used for this analysis used a year's worth of hourly wind data to assess the impacts on the worst-case wind hour (the calmest periods)

Comment #	Response
CampbellB-13	The AQMD would be involved in permitting and monitoring at the site, including inspections. The City, according to odor mitigation measures listed in the Draft EIR, would require additional air monitoring at the drilling site to ensure that odoriferous compounds do not exceed given thresholds.
CampbellB-14	The proposed Project does not propose any future expansion. Any analysis of an expansion would be speculative and is outside the scope of CEQA and the EIR. If the Applicant proposes expansion, it would require additional CEQA analysis and a separate permitting process.
CampbellB-15	Section 4.1, Safety and Risk, identifies the risks associated with hydrocarbon releases that could impact people. Section 4.8, Hydrology, examines the risk of oil spills to the environment and addresses requirements/mitigation for disposal procedures of water used for processing. DOGGR imposes requirements related to casing and abandonment of wells that reduces the risks of groundwater contamination.
CampbellB-16	Health risk impacts, as discussed in Section 4.1.4, were determined using the methods defined by CAPCOA and, CARB and the SCAQMD. These thresholds are based on the Project contribution to health risk. Other community-wide studies address health risk from the emissions of toxics, including the MATES study performed by the SCAQMD. An epidemiological study on the effects of past oil development in the Whittier Hills is outside the scope of the EIR.
CampbellB-17	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. The traffic counts were conducted along Penn and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained directly from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR and impacts were determined to be less than significant.
CampbellB-18	An effective method to reduce the threat of wildlife coming into contact with harmful substances is to reduce the threat of spills and to reduce attractive nuisances such as basins with water and possible contaminants. The potential for oil spills and associated impacts to biological resources is limited by mitigation measures developed in Section 4.3, Risk of Upset, Hazards, and Hazardous

Comment #	Response
	Materials, and Section 4.8, Hydrology and Water Resources. Mitigation developed in Section 4.8 includes secondary containment around tanks; design of retention basins; Spill Prevention, Control and Countermeasure Plan; a Pipeline Management Plan; and the requirement of an Emergency Response Action Plan; all of which would act to limit the potential for onsite spills and associated significant impacts. No ecological risk assessment has been conducted for this site. Section 4.2.4 discusses biological resources issues related to the Project and mitigation measures proposed to reduce impacts, including migratory and reproductive nesting impacts and related mitigation measures.
CampbellB-19	The Public Services and Utilities Section provides information on the amounts and sources of water to be used by the Project. It was determined that the current water providers can satisfy the water needs of the Project as proposed and impacts on water resources were found to be less than significant.
CampbellB-20	Produced water is slated to be re-injected back into the reservoir where it came from. Wastewater is described in Section 4.10 of the EIR and no significant and unavoidable impacts were identified associated with hydrology.
CampbellB-21	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations, with 30 compounds examined including BTEX. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.
CampbellB-22	Waste disposal is analyzed in various sections of the document , including Section 2, Project Description; Section 4.3, Safety, Risk of Upset and Hazardous Materials; Section 4.10, Wastewater; and Section 4.13, Public Services and Utilities. No specific comment is provided as to what waste disposal information is insufficient according to the commentor, and no additional response can be given.
CampbellB-23	The Emergency Response Plan requirements include provisions for public notification ion the event of an emergency as suggested in the comment.
CampbellB-24	As stated in Section 2.3.6, at the end of the economic life of the Project, estimated to last at least 25 years, a separate permit process and environmental review would evaluate decommissioning the entire site when the owner applies to abandon the facility. Since the timing of the decommissioning is unknown and the Applicant has not submitted a detailed decommissioning plan, any assessment of the decommissioning activities would be speculative at this time.

Irma Cardenas

Comment #	Response
CardenasI-1	The thresholds utilized for noise, air quality, and traffic are based on codes, regulations, guidelines and standards established by various agencies, including the City of Whittier and the SCAQMD. In some areas, such as noise, the thresholds are additionally quantified. The Draft EIR identifies numerous significant impacts, some of which are specifically identified as being able to be mitigated to a level of insignificance by required mitigation measures, but makes no decision on whether the Project should be approved. Project approval is the responsibility of the public through their elected representatives. No specific comment is provided on the Draft EIR and no additional response is provided.

Marc Casado

Comment #	Response
CasadoM-1	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities as per mitigation measures under impact N.1.
CasadoM-2	The comment is speculative and outside the scope of the Final EIR and, therefore, no response is provided. The DEIR discusses vibration impacts (in section 4.5, Noise and Vibration) associated with roadways and studies by CalTRANS that indicate minimal impacts from vibrations if roadways are maintained.
CasadoM-3	Air modeling along Penn Street indicates that diesel exhaust would not produce cancer risk levels above the SCAQMD thresholds during operations. Operational air emissions are discussed in Section 4.1.4.2. During construction, trucking would be temporary, and the thresholds would also not be exceeded, even though there could be a relatively large number of trucks for a short duration.

Diane Cassidy

Comment #	Response
CassidyD-1	The Draft EIR requires audits and monitoring of facility pipelines. It also identifies oil spills and impacts to waterways as a significant and unavoidable impact. This will have to be evaluated by the City. Under CEQA, the Project may still be approved, but only if the City makes a finding of overriding considerations.
CassidyD-2	The Applicant could change their Project, but if the new project does not fit within what has been examined and approved in a certified EIR, then a new EIR (or an amended EIR) would need to be completed to cover the new project. A CEQA analysis is required to be performed for all project components before a permit can be issued, and no changes may be made to a project without going through the EIR process all over again.
CassidyD-3	The majority of the comment does not specifically relate to the contents of the Draft EIR and, therefore, no response is provided. However, with regard to Proposition A, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to comply with the requirement of Proposition A by either reimbursing the Los Angeles County Proposition A District for the 7 acres or providing a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to

Comment #	Response
	comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District the Project property.

HP Chin

Comment #	Response
ChinH-1	The comment alludes to Proposition A. As such, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.
ChinH-2	Comment in opposition of proposed Project is acknowledged. No specific comment is provided on the Draft EIR and no additional response is provided. Each of the general categories referenced in the comment are fully analyzed in the DEIR.
ChinH-3	The comment is speculative and outside the scope of the Final EIR and, therefore, no response is provided.

Bill Daniels

Comment #	Response
DanielsB-1	The Draft EIR requires, under mitigation measure FP-1c and SR-1b, audits of the facility to ensure compliance with applicable codes and standards.
DanielsB-2	Section 4.12 discusses these issues related to firewater design and also determines that the firewater supply, as designed by the Applicant, is not sufficient, but is required to be improved by mitigation measure FP-1a).
DanielsB-3	The lack of availability of fire protection drawing necessitated the mitigation measure FP-1c, which requires audits of the fire protection systems. In addition, the fire department conducts a review of the design drawings before issuing a permit.

Martha Davila

Comment #	Response
DavilaM-1	Comment in opposition of the proposed Project is acknowledged. Mitigation measures designed to reduce potential negative impacts are identified and discussed in the individual sections within the EIR. No specific comment is provided on the Draft EIR and no additional response is provided

David Cowardin & Gina Natoli

Comment #	Response
DC&GN-1	The EIR uses the existing condition on the ground at the time the NOP was issued as the appropriate baseline to conduct environmental review. The previous oilfield was not used as the baseline. Discussions of the old oil field are only included as examples of the potential impact and recovery of oil fields on habitats.

Comment #	Response
DC&GN-2	The comment is mistaken; the Draft EIR analyzes the impacts that are occurring to the Habitat Preserve, not to an industrial area.
DC&GN-3	The Biology Section, 4.2, contains thresholds of significance and standards that are used to evaluate the impacts of the Project as required by CEQA on wildlife.
DC&GN-4	Commenter's opinion on the land us consistency analysis is acknowledged. Specific comments on policies are responded to individually bellow.
DC&GN-5	The correction to the FMX discussion has been added to the Final EIR.
DC&GN-6	Stockpiled material would only be placed in previously disturbed areas as suggested in the comment. Limits of disturbed areas would be defined in permits as described in section 2 of the DEIR.
DC&GN-7	The Applicant has provided this information as part of the Project Description. Detailed mitigation is included in the noise and aesthetic sections.
DC&GN-8	The Applicant has provided this information as part of the Project Description. Detailed mitigation is included in the noise and aesthetic sections.
DC&GN-9	The FMZ zones around the meter building have been included in the impacted vegetative areas tabulated in Section 4.2 and used to determine areas that would need to be offset for biological mitigation.
DC&GN-10	Temporary is only used to define issues related to the testing and construction phase. Drilling would continue for 5 years, then for 3 months per year every year thereafter.
DC&GN-11	Staging and parking areas are defined within the Preserve inside the Catalina Avenue entrance gate. Impacts of these areas are included in Section 4.2, Biological Resources.
DC&GN-12	NOx emissions from combustion are a continuous problem in heavily urbanized areas. The SCAQMD addresses NOx emissions and addresses numerous requirements to help reduce NOx emissions. This issue is analyzed in the DEIR and mitigation measures address the issue to a level of insignificance.
DC&GN-13	The Draft EIR utilized the thresholds for the air district in the Los Angeles Area, which are defined by the SCAQMD.
DC&GN-14	These mitigation measures are defined by the SCAQMD and have been inserted at their request. The mitigation has been amended to allow the Habitat Authority to ensure plantings are appropriate.
DC&GN-15	The 15 mph speed limit is prescribed by the SCAQMD as part of their fugitive dust mitigation program. However, biological mitigation require reductions of speed down to 10 mph.
DC&GN-16	These mitigation measures are defined by the SCAQMD and have been inserted at their request. The mitigation has been amended to allow the Habitat Authority to ensure soil binders are appropriate.
DC&GN-17	The availability of alternative fueled construction equipment is doubtful at best. Electric construction equipment is currently limited to bucket trucks, small cranes, forklifts, and other small equipment. Replacing larger diesel equipment that produces most of the construction emissions with electric equipment is not

Comment #	Response
	feasible in the near term; the authors are unaware of any available electric equivalents. However, other measures to reduce emissions have been incorporated into the DEIR.
DC&GN-18	Mitigation measures have been expanded to include the use of tier 4 diesel engines or electric drilling rigs to achieve NOx reductions.
DC&GN-19	Some electrification of equipment is possible, but the use of electric heaters to produce the level of heat required to run the gas plant is inefficient and would most likely generate more NOx emissions through the required generation of electricity. Note that CNG and electricity both produce NOx as well. The mitigation measures are written to allow for a range of technologies to achieve the emissions thresholds.
DC&GN-20	This terminology related to the oilfield property has been modified to be clearer.
DC&GN-21	The following data supports the 60 dBA noise contour to determine area of impact: "In Irvine, Orange County, LSA Associates conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: Although it is difficult to directly relate the effects of noise on breeding birds, <u>no adverse effects were observed during periods of noise levels higher than 60dBA</u> Leq (i.e., during periods of construction activity) as evidenced by the number of California gnatcatchers and least Bell's vireos remaining in this area." If sensitive birds were found not to react to noise levels higher than 60dBA than levels below that sound threshold would also it stands to reason that birds would not react to noise levels below that level.
DC&GN-22	All restoration efforts including the location of restoration efforts would be coordinated with the City and the Habitat Authority. The five year maintenance period specified is a minimum, but may be longer if necessary.
DC&GN-23	Text has been modified to require a mandatory alternative or auxiliary mitigation plan in the Final EIR.
DC&GN-24	All components of any restoration plan prepared for this mitigation measure would be reviewed and approved by the Habitat Authority prior to implementation; annual dates for reporting would be determined at this plan review.
DC&GN-25	Truck traffic would substantially increase on the North Access Road and this element of the Project would occur in or near occupied California gnatcatcher habitat. However, the Draft EIR has provided mitigation measures restricting the timing of vegetation removal to avoid this species' nesting season BIO-4e) and has demonstrated that this species has shown resilience to the level of noise anticipated from ongoing hauling activities anticipated near or within the occupied habitat. In addition, the Project proponent is required to consult with the USFWS to ensure compliance with the federal Endangered Species Act. If, during the required consultation, the USFWS were to determine that additional

Comment #	Response
	mitigation would be required to achieve compliance with federal law, based upon new information, the Project proponent would be required to provide such mitigation in order to comply with both federal law and CEQA.
DC&GN-26	The reference to "temporary" noise impacts has been removed. It was the intent of the 1:1 habitat replacement to account for ongoing operational noise impacts which was used for the noise contour and habitat loss calculation.
DC&GN-27	There would be a temporal loss of functioning habitat while restoration is occurring. The Draft EIR already accounts for this loss and therefore has required more than a 1:1 replacement ratio.
DC&GN-28	The reference to "temporary" noise impacts has been removed. However, much of the functions of the habitat (i.e., cover and foraging habitat) would not be lost due to noise and therefore a 3:1 replacement would not be necessary. The level of impact for many wildlife species is not well understood and this area is expected to still provide many of the same functions to many of the same wildlife species that it would prior to drilling and operating. Therefore, a 1:1 replacement ratio would be more appropriate level of replacement for noise-related impacts.
DC&GN-29	A "timely re-establishment of vegetation" as required in the Emergency Response Plan would be governed by the same Habitat Authority guidelines required for all restoration efforts resulting from Project impacts. These efforts would require a Plan that would be reviewed by the City and the Habitat Authority and timeframes and success criteria would be determined at the time of plan submittals.
DC&GN-30	Although the final geotechnical report has not been completed, mitigation measure BIO-1 restricts any new grading along the North Access Road beyond the current grading boundaries (as depicted in the Road Improvement Plan including in Appendix A). The habitat disturbance values included in Table 4.2-3 and habitat disturbance depicted in Figure 4.2-9 already include an anticipated 20-foot setback for retaining wall installation; no additional grading or vegetation removal beyond this 20-foot setback (and 10-foot fuel modification zone) would be permitted. In addition, the habitat replacement ratios would apply to all impacts to protected sensitive habitats and therefore, would increase if the drainage plan requires additional impacts to riparian habitat or drainages. In addition, the retaining walls are being placed in areas where the road cuts already exist and these road cuts already pose wildlife movement restrictions. The Draft EIR has been changed to require that no permanent solid walls or k-rails walls longer than 20 feet be placed along the North Access Road. The use of k-rails in this area would require wildlife passages placed every 20 feet to allow wildlife to move freely off the road. Implementing the proposed mitigation which includes speed limits of 10 mph, traffic calming devices, and restricting traffic to daylight hours would reduce impacts to less than significant. Although the number of truck trips would increase during the construction phase, the Draft EIR biologists believe that the 6-month window of heavier truck trips on the North Access Road would be mitigated to less than significant by implementing mitigation measures described in the Draft EIR.
DC&GN-31	Although the final geotechnical report has not been completed, no new grading would be permitted along the North Access Road beyond the current grading boundaries (as depicted in the Road Improvement Plan including in Appendix A). The habitat disturbance values included in Table 4.2-3 and habitat disturbance depicted in Figure 4.2-9 already include an anticipated 20-foot setback for retaining wall installation; no additional grading or vegetation removal beyond this 20-foot setback (and 10-foot fuel modification zone) would be permitted. In addition, the habitat replacement ratios would apply to all

Comment #	Response
	impacts to protected sensitive habitats and therefore, would increase if the drainage plan requires additional impacts to riparian habitat or drainages. In addition, the City would review the final grading plans prior to issuing permits to determine if there are any additional impacts to habitat resulting from final road, pipelines, and drainage plans. Specifics of how to implement conditions of approval, responsible parties, funding and ensuring compliance once the grading plans are reviewed and approved would be addressed at the time the City issues permits. The Draft EIR contains a Mitigation Monitoring Program in Section 8.0 that covers recommended mitigation and responsibilities that the City can amend during the approval process. The mitigation already states that all "revegetation efforts shall comply with the Habitat Authority's Restoration Guidelines" and the Mitigation Monitoring Plan (page 4.2-76) already states that the Agency review must be reviewed and approved prior to the City issuing any permits for work allowing for agency review of final grading. Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including: (1) a Section 404 Permit from the U.S. Army Corps of Engineers; (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality; and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. That permitting process would only occur with the final grading elements based on the results of the geotechnical study. Together, BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that cannot be avoided, the Project's potentially significant adverse effects would remain at a level less than significant.
DC&GN-32	The Draft EIR found that "increased levels of drilling operations and human activities in the Core Habitat, which currently has minimal disturbances, would result in substantial impacts to wildlife movement." As a result, the EIR attempts to identify all feasible and appropriate measures that would allow wildlife to continue to move safely through the Project area. It is widely recognized that the Service Tunnel is a critically important linkage and "choke point" for wildlife moving through the Project vicinity. Data from the Habitat Authority's 2010 movement study suggest that recreational use of the tunnel may be reducing use of the tunnel by bobcats and other terrestrial species in the existing condition. The Draft EIR biologists view removal of recreational pressure on wildlife use of the tunnel during periods of construction and drilling as a viable means of increasing the tunnel's attractiveness as a linkage, thereby helping to avoid any possible increase in wildlife crossing Colima Road at grade farther north. The Draft EIR biologists do not agree with the assertion that "Animals diverted north by activity in the Core Habitat [i.e., La Cañada Verde watershed] would most logically try to cross Colima Road to the north." The upper Arroyo Pescadero is a densely vegetated watershed, with no established pathways or topographic features that encourage east/west movement of terrestrial wildlife. This is not to say that such movement does not occur anyway – roadkill data for Colima Road clearly show that it does. Assuming that terrestrial movement in the La Cañada Verde watershed tends to be shifted north of the Well Pad Site, the question is whether bobcats and other terrestrial species are likely to consider northerly at-grade crossings as more attractive than use of the Service Tunnel.

Comment #	Response
	Given that both the topography and trail system encourage wildlife moving east and west to cross the Arroyo Pescadero on the existing road that leads to/from the Service Tunnel, and given other measures identified in the Draft EIR to improve the tunnel's attractiveness to wildlife, the Draft EIR biologists consider it likely that terrestrial wildlife would continue to use the Service Tunnel as the primary means of crossing Colima Road.
DC&GN-33	Traffic calming devices include speed bumps, speed reduction dips, and electronic radar speed displays.
DC&GN-34	Mitigation measure BIO-4k already states that the biological monitor would have the authority to halt activities if any permit requirements and conditions (which would include impacts to nesting birds) are not being met.
DC&GN-35	The first reference to "other native birds" has been removed.
DC&GN-36	The text has been changed as recommended in the Final EIR.
DC&GN-37	BIO-4b already states as comment requests: "*All Project lighting shall be designed and shielded with the intent of preventing spillage of light into adjacent preserved open space areas*."
DC&GN-38	The exact location of signs would be located at the direction of the Habitat Authority in the vicinity of the Service Tunnel.
DC&GN-39	The Habitat Authority would be consulted in the general approach of wildlife salvaging. However, it would be up the Habitat Authority-approved biologist to make field decisions.
DC&GN-40	The recommended change has been made to the Draft EIR requiring Habitat Authority approval to the environmental training program.
DC&GN-41	CEQA requires that the Draft EIR preparer focus on evaluating the existing conditions. The high-value conditions for wildlife that exist in the Project area now have come about in the wake of previous oil operations in the area that were much more extensive than what is now being proposed. This is a valid point in the context of evaluating what the future conditions of the area are likely to be once oil operations cease again after the 30-year life of the Project. The current high wildlife values have come to be, in part, due to the Habitat Authority's extensive restoration of previously degraded habitats and other measures designed to facilitate recovery of wildlife populations. Similarly, the Draft EIR identifies an extensive array of habitat restoration and other mitigation measures that are known to have positive effects upon native wildlife populations. This is not to suggest that the effects of project implementation are likely to be generally positive, at least during the 30-year life of the project, and the Draft EIR has not indicated otherwise. All wildlife populations that exist in the Project area now are very likely to persist there for the life of the project, and to fully recover from any adverse short-term or medium-term effects of the Project once oil operations again come to an end as far as three decades into the future. The mitigation measures identified in the Draft EIR, together with additional measures identified in the Final EIR, represent the appropriate level of mitigation to reduce all impacts to biological resources to a level less than significant under CEQA.

Comment #	Response
DC&GN-42	Although some of the noise-related mitigation measures proposed in Section 4.5, Noise and Vibration, are designed to protect humans they would also protect wildlife by reducing noise impacts. For example, most of the larger mammals move through the area at night and eliminating most activities at night would reduce the threat of wildlife species being struck by vehicles.
DC&GN-43	Balancing resource protection is necessary when considering resource production. The City of Whittier is the ultimate determinant of consistency issues regarding the oil and gas development within the City's owned land that is part of the Preserve, and balancing interests and policy determinations for a final decision on the Project.
DC&GN-44	No comment on the Draft EIR is provided and no additional response is merited.
DC&GN-45	The lease agreement contemplates payments to the Preserve for restoration efforts. In addition, restoration activities would have to be undertaken within the Preserve as part of mitigation measures identified to diminish environmental impacts. Mitigation measures in section 2, Biological Resources, define the required amounts of restoration. Other funding for the continued activities at the Preserve would be determined by the City.
DC&GN-46	There is not strong support in the literature for the idea that Project implementation, including all required mitigation measures, is likely to result in significant adverse effects on biological resources. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations. This is one reason that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter.
DC&GN-47	Although some of the Exterior Noise Standards described in Section 4.5, Noise and Vibration, are designed to protect humans they would reduce noise levels, which would benefit wildlife.
DC&GN-48	Noise-sensitive areas would be areas that support sensitive resources such as nesting bird habitat, riparian habitat, and wildlife corridor habitat. All of these habitats are present in the Preserve in proximity to the Sycamore Canyon facilities.
DC&GN-49	The property boundary refers to the edge of the Sycamore Canyon facilities property boundary, which would also coincide with the Preserve's boundary.
DC&GN-50	Watershed is defined as that portion of the Preserve that drains into one specific valley. Although there are not necessarily flowing streams in that particular part of the watershed, it is still defined by where the water would flow after a rainstorm.
DC&GN-51	The temporal loss of habitat is already considered in the requirement of a 3:1 habitat replacement (as opposed to a smaller ratio but requiring earlier restoration) and therefore, there is no additional requirement to complete restoration efforts prior to construction disturbances. The Habitat Authority and permitting agencies may require in their permitting process additional timing to reduce the temporal loss of habitat.
DC&GN-52	The temporal loss of habitat is already considered in the requirement of a 3:1 habitat replacement (as opposed to a smaller ratio but requiring earlier restoration) and therefore, there is no additional requirement to complete restoration efforts prior to construction disturbances including any site grading. The Habitat Authority and permitting agencies may require in their permitting process additional timing to reduce the temporal loss of habitat.

Comment #	Response
DC&GN-53	"Ecologically vulnerable habitats" has been changed to "environmentally sensitive habitat" as described in the mitigation measure.
DC&GN-54	The requirements have been changed to "Seasonal restrictions for construction and surveys to protect bats" in the Final EIR.
DC&GN-55	The requirements have been changed to "Biological monitor" in the Final EIR.
DC&GN-56	The text has been revised in response to the comment indicating the topography of the pipeline route more accurately.
DC&GN-57	The Ground Shaking section has been re-inserted in response to the comment. In addition, text regarding vertical ground accelerations has been re-inserted in response to the comment.
DC&GN-58	As indicated in the Probabilistic Ground Acceleration Analysis section, Project site-specific acceleration values of 0.4861 g to 0.475 g were calculated, which are consistent with 2011 California Geological Survey maps. Therefore, assuming a 1.6 multiplier for horizontal to vertical ground accelerations, vertical ground accelerations of 1.6 g would not be expected. Mitigation measures GR-1a and GR-1c have been edited mandating that peak vertical ground accelerations be estimated during the final design process.
DC&GN-59	In the event that the existing fill requires excavation and compaction, such a procedure could be completed in stages such that only the disturbed areas are used for temporary stockpiling of soil. Although not specified in the Project Description, it is reasonable to assume that such a methodology would be employed.
DC&GN-60	Various slope stabilization methods could be utilized to reduce the amounts of soil removal. The proposed project includes an analysis using conservative slope "lay-backs", generating a worst case disturbed area. This worst-case area was analyzed in the DEIR and found to not produce significant and unavoidable impacts.
DC&GN-61	Mitigation GR-6d has been edited to include a pipeline management plan.
DC&GN-62	As indicated in comment response DC&GN-58, vertical ground accelerations of 1.6 g would not be expected. The Impact GR.1 discussion concludes by saying "potential seismic impacts and associated damage to structures from a major earthquake on the nearby Whittier Fault, Puente Hills thrust fault, or any other regional fault, would be considered significant". Therefore, the significant criteria have been directly addressed. Whether or not the significant impact can be reduced to less than significant levels through the mitigation measures provided is subjective. Because seismic risks are omnipresent throughout southern California, it doesn't seem reasonable to conclude that all new construction projects subject to CEQA would have significant and unavoidable seismic impacts. Therefore, it was concluded that the impacts could be reduced to less than significant levels through incorporation of standard building codes and seismic design, which use the probabilistic ground acceleration analysis established by the California Geological Survey (2011), as well as recently developed seismic attenuation relationships.

Comment #	Response
DC&GN-63	As indicated in comment response DC&GN-58, vertical ground accelerations of 1.6 g would not be expected.
DC&GN-64	The text has been modified in the Final EIR to indicate that streets are located to the east and south of the Project Site and only a portion of the area is divided by surface streets.
DC&GN-65	The allowable noise levels according to the General Plan are based on the categories defined therein. As there is not a category for Preserves, the designation for Parks was used. A more stringent standard may be applicable in other jurisdictions, but the City of Whittier does not have a designation for a Preserve. However, the Draft EIR recognizes this issue and proposes a second set of threshold criteria based on increases over baseline levels. These are limited to increases of 5 dBA over the minimum 24 hour average hour, which is in the mid 40s for the Preserve area. Baseline levels were measured at six locations around the Project area.
DC&GN-66	SoundPlan is one of principally two high end noise modeling software programs that are considered industry standards. It was developed in Germany and is utilized for exterior and interior noise modeling and regulatory compliance.
DC&GN-67	The text has been modified in the Draft EIR to indicate that the noise mitigation would mitigate any drilling activity, whether urban or rural. The use of the urban term indicates that, without the urban setting, noise mitigation is generally not applied. The proposed Project would be located in an urban area with residences relatively close to the development.
DC&GN-68	The east side of the gas plant area would have a 25 foot retaining wall, which would act as a noise barrier, so additional noise protection is not necessary. Please see Appendix A for details of the site arrangement.
DC&GN-69	Section 2, Project Description, lists sensitive receptors and the distance to them in Table 2-4.
DC&GN-70	The text has been updated in the Final EIR to indicate that the closest sensitive receptor would be the Ocean View residences.
DC&GN-71	Section 4.5, Noise and Vibration, addresses impacts to humans and only human receptors are identified in section 4.5 as sensitive receptors. Section 4.2, Biological Resources, addresses noise and vibration impacts to flora and fauna located within the core habitat including an assessment of the areas that could be exposed to noise levels above 60 dBA.
DC&GN-72	The 30-foot sound walls are proposed as mitigation and are therefore not included in the assessment of the proposed Project configuration. However, at the end of the Aesthetics section, the impacts of other issue area mitigations (i.e. the sound walls) are discussed.
DC&GN-73	Views of the drilling rig and processing equipment are not considered to be desirable views. Numerous eucalyptus trees would be removed as part of the proposed Project and landscaping could to make up for the loss of visual screening, particularly from the Preserve trail areas, such as along Deer Loop Trail.
DC&GN-74	The Habitat Authority is included in the mitigation for landscaping for approval of plant selection.
DC&GN-75	The mitigation measure requires that the lumens outside of the Project Site be maintained at a certain level, and the Applicant can utilize whatever means they feel appropriate to achieve this level of luminosity.

Comment #	Response
DC&GN-76	Specific comments on land use plan consistency are responded to below as appropriate.
DC&GN-77	Land Use and Policy Consistency Analysis Section 4.11.3 identifies significance criteria in determining whether the proposed Project would result in significant impacts.
DC&GN-78	The commenter's disagreement with the EIR consistency analysis is acknowledged. That said, as stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, much of these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat. These combined efforts would enhance the City as a desirable community.
DC&GN-79	The commenter's disagreement with the EIR consistency analysis is acknowledged. To note, the City owns approximately 1,290 acres of former oil fields in the Preserve that was commonly known as the Whittier Main Field, an active oil field that produced oil for more than 100 years with approximately 500 drilled wells until the early 1990s.
DC&GN-80	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-81	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-82	As stated in Section 4.11.5.1, the proposed Project would maintain personnel, between 15 and 40 people, during each of the three main phases of the Project, increasing the levels of employment in the City. Therefore, the proposed Project would be consistent with this policy. The policy does not address residency of those employed in the City.
DC&GN-83	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-84	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-85	The disagreement with the EIR consistency analysis is acknowledged.
DC&GN-86	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-87	The disagreement with the Draft EIR consistency analysis is acknowledged. That said, as stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, much of these long-term proceeds would be directed toward the

Comment #	Response
	preservation and enhancement of the Preserve's ecological resources and native habitat.
DC&GN-88	The disagreement with the Draft EIR consistency analysis is acknowledged. That said, as stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, much of these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat.
DC&GN-89	The disagreement with the Draft EIR consistency analysis is acknowledged. That said, as stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, much of these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat, which would provide a positive impact to passive and active recreation users.
DC&GN-90	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-91	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, much of these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat. These combined efforts would enhance the City and its neighborhoods as a desirable community.
DC&GN-92	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-93	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-94	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-95	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-96	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-97	The disagreement with the Draft EIR consistency analysis is acknowledged. The Preserve land is owned by the City of Whittier, therefore, this policy analysis applies to the roads within the Preserve.
DC&GN-98	The agreement with the Draft EIR consistency analysis is acknowledged.

Comment #	Response
DC&GN-99	The consistency analysis in the Draft EIR related to this policy focuses on the proposed Project.
DC&GN-100	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-101	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-102	Mitigation measures in Section 4.7 Transportation and Circulation identify improvements to existing roadways to improve circulation.
DC&GN-103	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-104	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-105	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-106	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-107	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-108	The disagreement with the Draft EIR consistency analysis is acknowledged. Mitigation measures included in the DEIR in section 4.2, Biological Resources, would require the restoration of areas that exceed the areas disturbed and would retain a natural balance in the Preserve. Impacts are determined to be less than significant.
DC&GN-109	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-110	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-111	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-112	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-113	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-114	The disagreement with the Draft EIR consistency analysis is acknowledged.

Comment #	Response
DC&GN-115	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-116	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, much of these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat.
DC&GN-117	Comment and disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-118	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-119	Comment and disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-120	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-121	The disagreement with the Draft EIR consistency analysis is acknowledged. Further, in addition to the consistency analysis in the Draft EIR, it is important to state the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site.
DC&GN-122	Associated mitigation measures for Impacts Rec.1 and Rec.2 in Section 4.14 Recreation are designed to reduce the impacts to recreation to a less than significant level, thereby remaining consistent with Goal 5.
DC&GN-123	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-124	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-125	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-126	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-127	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-128	The disagreement with the Draft EIR consistency analysis is acknowledged.

Comment #	Response
DC&GN-129	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-130	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-131	The disagreement with the Draft EIR consistency analysis is acknowledged. Further, in addition to the consistency analysis in the Draft EIR, it is important to state the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site.
DC&GN-132	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-133	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-134	As stated in Section 4.11.5.1, the Applicant has been coordinating with the City to develop plans for the proposed Project that meet the requisite development standards, including those for the Hillside area, which have a high sensitivity for ecological resources. Therefore, the proposed Project would be found consistent with this policy.
DC&GN-135	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-136	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-137	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-138	The disagreement with the Draft EIR consistency analysis is acknowledged. The Preserve land is owned by the City of Whittier, therefore, this policy analysis applies to the roads within the Preserve.
DC&GN-139	Mitigation measures identified in Section 4.2, Biological Resources, are designed to reduce the impact to wildlife. Therefore, the proposed Project could be found consistent with this policy.
DC&GN-140	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-141	As stated in Section 4.11.5.1, a visitor parking facility off of Colima Road currently provides angled parking and the proposed Project would not include modifications to this parking area. The proposed Project would include development of a Truck Loading Facility at the Project Site. Truck queuing would be discouraged through scheduling practices. Therefore, the proposed Project could be found consistent with this policy.
DC&GN-142	A Landscape Plan is required as a mitigation measure in the Draft EIR. Since the Landscape Plan has yet to be prepared, it is unclear how the commenter knows its contents.

Comment #	Response
DC&GN-143	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-144	The comment is acknowledged. The Applicant is required to comply with and obtain all applicable SCAQMD permits and regulations prior to development. Therefore, the proposed Project would be consistent with this policy.
DC&GN-145	As stated in the Draft EIR, the proposed Project Applicant is required to comply with and obtain all applicable SCAQMD permits and regulations prior to development. Therefore, the proposed Project would be consistent with this policy.
DC&GN-146	Comment and disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-147	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-148	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-149	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-150	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-151	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-152	There is no specific comment on the Draft EIR and no additional response is merited.
DC&GN-153	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-154	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-155	The disagreement with the Draft EIR consistency analysis is acknowledged. As stated in Section 4.11.5.1, the mitigation measures in Section 4.5 Noise and Vibration are aimed at avoiding future problems through design measures.
DC&GN-156	The Draft EIR consistency analyses addresses issues related to goals through the more specific policies that fall within each goal. The consistency analyses for Policies 2.1, 2.2, 2.4, and 2.5 relate to Goal 2.
DC&GN-157	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-158	The agreement with the Draft EIR consistency analysis is acknowledged.

Comment #	Response
DC&GN-159	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-160	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-161	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-162	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-163	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-164	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-165	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-166	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-167	As stated in Section 4.11.5.3, while the reintroduction of oil production would disturb a portion of the Whittier Main Oil Field, Project implementation would contribute funding to the Habitat Authority's management and restoration activities which could include cultural preservation and education activities. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, “The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans.” Therefore, the proposed Project would be consistent with this goal.
DC&GN-168	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-169	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-170	The disagreement with the Draft EIR consistency analysis is acknowledged. As stated in Section 4.11.5.3, Project implementation would contribute funding to the Habitat Authority's management and restoration activities as noted above. Therefore, the proposed Project would be consistent with this goal.
DC&GN-171	The disagreement with the Draft EIR consistency analysis is acknowledged. Note that the proposed Project would not eliminate trails; rather, certain portions of trails would be temporarily closed during certain phases of the Project.

Comment #	Response
DC&GN-172	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-173	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-174	As stated in Section 4.11.5.4, portions of the proposed Project's oil and gas pipeline fall within Los Angeles County jurisdiction. Therefore, the goals of the Los Angeles County General Plan identified in the Draft EIR would be applicable to those portions of the proposed Project.
DC&GN-175	As stated in Section 4.11.5.4, portions of the proposed Project's oil and gas pipeline fall within Los Angeles County jurisdiction. Therefore, the goals of the Los Angeles County General Plan identified in the Draft EIR would be applicable to those portions of the proposed Project.
DC&GN-176	As stated in Section 4.11.5.4, portions of the proposed Project's oil and gas pipeline fall within Los Angeles County jurisdiction. Therefore, the goals of the Los Angeles County General Plan identified in the Draft EIR would be applicable to those portions of the proposed Project.
DC&GN-177	As stated in Section 4.11.5.4, portions of the proposed Project's oil and gas pipeline fall within Los Angeles County jurisdiction. Therefore, the goals of the Los Angeles County General Plan identified in the Draft EIR would be applicable to those portions of the proposed Project.
DC&GN-178	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-179	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-180	No specific comment on the Draft EIR is included and, therefore, no response is provided.
DC&GN-181	The disagreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-182	As stated in Section 4.11.5.4, Section 4.3, Safety, Risk of Upset and Hazardous Materials, and Section 4.12, Fire Protection and Emergency Services, discuss potential impacts of the proposed Project to these issue areas. Mitigation measures developed for these two sections would minimize these impacts. Therefore, the proposed Project would be consistent with these policies.
DC&GN-183	As stated in Section 4.11.5.4, portions of the proposed Project's oil and gas pipeline fall within Los Angeles County jurisdiction. Therefore, the goals of the Los Angeles County General Plan identified in the Draft EIR would be applicable to those portions of the proposed Project.
DC&GN-184	The agreement with the Draft EIR consistency analysis is acknowledged.
DC&GN-185	The disagreement with the Draft EIR consistency analysis is acknowledged.

Comment #	Response
DC&GN-186	No specific comment on the Draft EIR is included and, therefore, no response is provided.
DC&GN-187	Many of the comments included on consistency made by the commenter failed to state the reasons why the commenter feels they are inconsistent. The commenter's opinion of the consistency analysis is acknowledged.
DC&GN-188	Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
DC&GN-189	The comments included on consistency made by the commenter failed to state the reasons why the commenter feels they are inconsistent. The commenter's opinion of the consistency analysis is acknowledged.

David Dickerson

Comment #	Response
DickersonD-1	The choice of alternatives is a balance between impacts on humans via traffic and recreation, and impacts on biology. The Landfill Alternative or the use of Catalina Avenue exclusively would result in the least impacts to biological resources. The decision makers could utilize the information in the Draft EIR, and make an overriding consideration to require the use of one of the alternatives, even with the significant and unavoidable impacts during construction. The Draft EIR does not attempt to weight the issue areas and assigns equal value to each impact, which may not reflect the concerns of the community. The alternative access road identified as the Loop Trail Road in Section 5.0, Alternatives, as an alternative access route in the Draft EIR, would also move impacts away from residences along Penn Street, but would produce impacts to the recreational resources in the area. It is considered as a fire road access for the proposed Project.

Comment #	Response
DickersonD-2	Section 4.14, Recreation, discusses the addition of signage explaining the oil drilling and extraction process.
DickersonD-3	The noise models were re-run with the new Project configuration and show, as indicated by the commenter, that noise levels would be reduced because operations would be farther from residences. The Draft EIR also examines a receptor along the Deer Loop Trail, relatively close to the facilities.
DickersonD-4	The use of the Loop Trail Road would potentially reduce impacts in the Core Area of the Preserve, but it also would impact wildlife movements and recreational areas. Route B, in Figure 5-1, would require the use of Catalina Avenue, which would produce significant and unavoidable impacts during the construction phase of the Project.
DickersonD-5	Route B, in Figure 5-1, would require the use of Catalina Avenue, which would produce significant and unavoidable impacts during the construction phase of the Project, but it would produce the lowest impacts on biology of the prospective routes.
DickersonD-6	Section 4.14, Recreation, discusses the addition of signage explaining the oil drilling and extraction process. Mitigation measures in section 4.2, Biological resources, address the issues related to the wildlife corridor.
DickersonD-7	The choice of roadways is clearly a balance between traffic and recreation impacts on humans and impacts on biology. Although the Draft EIR finds that the North Access Road would produce the fewest significant and unavoidable impacts, the decision makers could utilize the information in the Draft EIR, and make an overriding consideration to require the use of Catalina Avenue only, even with the significant and unavoidable impacts during construction. The Draft EIR does not attempt to weight the issue areas and assigns equal value to each impact, which may not reflect the concerns of the community. After construction, all vehicles except trucks would utilize Catalina Avenue and only an average of two trucks per day would utilize the North Access Road, or up to six average round trips during the operational drilling phase.

Teri Duncan

Comment #	Response
DuncanT-1	Comment in opposition to the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.

Daniel Duran

Comment #	Response
DuranD-1	The mechanism to receive comments from the potentially affected members of the community and to provide input into the environmental review process is for the interested parties to come to public hearings and provide input. Input opportunities included the Notice of Preparation Public Hearing, the Draft EIR Workshop and the Meeting to receive public comments on the Draft EIR. Members of the public can also provide comments in writing as to the issues they wanted addressed in the EIR and areas where they felt impacts would occur. One on one meetings with all potentially affected members of the public is not a feasible or customary way to conduct environmental review. Otherwise, the comment is acknowledged, but no specific comment on the Draft EIR is included and, therefore, no further response is provided.

Comment #	Response
DuranD-2	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov. This information analyzes the health considerations applicable to all people, including those who reside in close proximity to the Project. Appendix H, Socioeconomics, provides an analysis of the proposed Project's impact on property values.
DuranD-3	The currently proposed Project addresses the impacts to Catalina Avenue and Mar Vista Street traffic by proposing to improve an old dirt road and route a majority of the construction traffic north through the Preserve, through the Landfill to Penn Street, via the North Access Route.
DuranD-4	The mechanism to receive comments from the potentially affected members of the community and to provide input into the environmental review process is for the interested parties to come to public hearings and provide input. Input opportunities included the Notice of Preparation Public Hearing, the Draft EIR Workshop and the Meeting to receive public comments on the Draft EIR. Members of the public can also provide comments in writing as to the issues they wanted addressed in the EIR and areas where they felt impacts would occur. One on one meetings with all potentially affected members of the public is not a feasible or customary way to conduct environmental review.
DuranD-5	The mechanism to receive comments from the potentially affected members of the community and to provide input into the environmental review process is for the interested parties to come to public hearings and provide input. Input opportunities included the Notice of Preparation Public Hearing, the Draft EIR Workshop and the Meeting to receive public comments on the Draft EIR. Members of the public can also provide comments in writing as to the issues they wanted addressed in the EIR and areas where they felt impacts would occur. One on one meetings with all potentially affected members of the public is not a feasible or customary way to conduct environmental review.

Margot Eiser

Comment #	Response
EiserM-1	Socioeconomic impacts are discussed in Appendix H of the Draft EIR.
EiserM-2	Environmental Justice impacts are discussed as part of Section 4.16 in the Draft EIR.

Comment #	Response
EiserM-3	Comment in opposition of the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.
EiserM-4	Support for the Savage Canyon Landfill Alternative is acknowledged.
EiserM-5	The comment is outside the scope of the Draft EIR and, therefore, no response is provided.
EiserM-6	Analysis of Impacts of construction and operation of pipelines within the Preserve is included in the Draft EIR.

Janet Fattahi

Comment #	Response
FattahiJ-1	Comment in opposition of proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.
FattahiJ-2	In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. Negotiations regarding refunding Proposition A between the City of Whittier and Los Angeles County are separate and distinct from the EIR. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.
FattahiJ-3	The comment is unclear. However, no hydraulic fracking is proposed as part of the Project as suggested in the comment.
FattahiJ-4	The Draft EIR examines fire, spills and the risks that could potentially lead to serious injuries or fatalities. Historical information on releases has been used to determine the types of scenarios that could occur and the extent to which they could impacts nearby areas. These have been incorporated in Section 4.3, Safety, Risk of Upset, and Hazardous Materials.
FattahiJ-5	No specific comment is included on the Draft EIR and, therefore, no response is provided.
FattahiJ-6	The comments questions the terms of the lease. However, this matter is outside the scope of the Draft EIR and, therefore, no response is provided. To the extent the comment suggest that the lease may be changed in any manner the parties to that agreement desire, the Project will remain bound by the mitigation measures and analysis of CEQA, notwithstanding any changes the parties might make to the lease.
FattahiJ-7	No specific comment is included on the Draft EIR and, therefore, no response is provided.
FattahiJ-8	No specific comment is included on the Draft EIR and, therefore, no response is provided. Existing conditions were taken into account in the CEQA analysis, and borings would be done by the Applicant and the Applicant/City would be bound by state and federal regulations relating to any past environmental contamination. Also, lease requires that if contamination is discovered, Matrix has to clean it up.

Comment #	Response
FattahiJ-9	Section 4.4. Geological Resources discusses project impacts with regard to fault lines. Mitigation measures GR-1a through GR-1g would reduce the impact to less than significant.
FattahiJ-10	No drilling is proposed under residences as suggested in the comment. All drilling would occur within the Preserve land owned by the City of Whittier.

Faith Fischer

Comment #	Response
FischerF-1	Comment in opposition of the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.
FischerF-2	The Applicant proposes to place an underground pipeline along Colima Avenue. There are currently numerous underground pipelines placed along streets in urban areas. Although the construction periods would inconvenience traffic, mitigation has been included and the City would require plans to mitigate these impacts. Construction is temporary and street construction is performed frequently along streets in urban areas for various purposes.
FischerF-3	The Applicant proposes to place an underground pipeline along Colima Avenue. There are currently numerous underground pipelines placed along streets in urban areas. Although the construction periods would inconvenience traffic, mitigation has been included and the City would require plans to mitigate these impacts. Construction is temporary and street construction is performed frequently along streets in urban areas.
FischerF-4	Pipeline ruptures do occur, although they occur less frequently than any other form of oil transportation. Maintenance and inspection criteria for the pipelines, as well as design criteria to minimize impacts if a release were to occur, have been included as mitigation in Section 4.3, Safety, Risk of Upset, and Hazardous Materials and section 4.8, Hydrology. However, even with mitigation, impacts would remain significant and unavoidable
FischerF-5	Current pipeline regulations promulgated by the Federal DOT require liability coverage by pipeline operators.

Peter Fischer

Comment #	Response
FischerP-1	Specific comments provided under separate cover are responded to separately. No specific comment is included on the Draft EIR and no additional response is provided.

James Flournoy

Comment #	Response
FlournoyJ-1	The access road as proposed by the Applicant would utilize both Catalina Avenue and the North Access Road that connects to the Landfill and Penn Street. The pipelines, within the Preserve, would follow the Loop Trail Road to connect to Colima. The use of the Loop Trail Road was included as an alternative to the Applicants proposal. It was found to have more significant and unavoidable impacts than the North Access Road due to the use of the Loop area by recreational users.
FlournoyJ-2	The text was intended to provide a general description of the physiographic features in the area, with no implications as to amount of uplift vs. strike-slip. However, the text has been revised in response to the comment. In addition, the

Comment #	Response
	Puente Hills and associated earthquake potential were subsequently discussed in Section 4.4.1.4 Faulting and Seismicity.
FlournoyJ-3	Figure 4.4.4 is not a faulting map and there is no Figure 4.4.5. Assuming the commenter is referring to Figures 4.4.2 and 4.4.3, these maps are from the California Geological Survey year 2010.
FlournoyJ-4	The Puente Hills fault is a blind thrust fault, which indicates that the fault does not reach the surface. Therefore, surface traces delineated on a map would be misleading. Figure 1 of the 2010 Yeats and Verdugo paper provide a Puente Hills fault location, but provide no reference points, as this fault location is very approximate and schematic, in order to show the approximate location of the underlying fault. (http://earthconsultants.com/cms/pdf/Yeats2010_10066AnnualReport_sm.pdf). The faults located within the oil field are inactive and irrelevant to the EIR.
FlournoyJ-5	Please see response to FlournoyJ-4 above.
FlournoyJ-6	As indicated on page 2-36 of the Project Description, Matrix will not be utilizing fracking techniques.
FlournoyJ-7	The text has been changed to reflect a maximum earthquake of magnitude 7.5 and data has been updated as appropriate.
FlournoyJ-8	Maximum anticipated earthquake magnitudes and associated ground acceleration was provided in the paragraphs following the text in question.
FlournoyJ-9	Without being able to review the URS and LACODPW reports, the Southern California Earthquake Data Center (2011) is assumed to be a reputable source regarding the maximum anticipated earthquake. However, text has been added indicating that Dolan et al. (2001) have postulated that the fault connects with the Montebello fault to the north, based on data from the Whittier Narrows 1987 earthquake.
FlournoyJ-10	SCEC references were provided in App. J, References.
FlournoyJ-11	The data in Table 4.4-1 is based on EQFAULT, Southern California Earthquake Data Center, and USGS, as indicated as a footnote to the table. These are the standards by which geologic-seismic assessments for proposed developments are used, as approved by local and state regulatory agencies. The table title has been changed to specify surface faults only.
FlournoyJ-12	As indicated in the text and based on the California Geological Survey (2011), the 10% probability maps are standard maps used in designing buildings in high seismic areas and are therefore appropriate for the project.
FlournoyJ-13	See response to J-12. The proposed additional sources are not standards typically used for new construction.
FlournoyJ-14	This EIR is not intended to be a design level geotechnical and/or structural engineering document. A preliminary geotechnical report (Heathcote Geotechnical 2011) has identified the geologic hazards associated with the project and provided recommendations for construction. However, as mandated by mitigation measures in Section 4.4.5, project construction would be completed in accordance with UBC requirements, including anticipated ground accelerations based on the most current and applicable seismic attenuation methods that are available.
FlournoyJ-15	See response to comment FlournoyJ-14.
FlournoyJ-16	A liquefaction assessment of the both the Project Site and associate pipeline were included in Section 4.4.1.4, Secondary Seismic Hazards. In addition, see response to comment FlournoyJ-14.
FlournoyJ-17	As indicated in Section 4.4.1.4, Secondary Seismic Hazards, liquefaction induced settlement is expected to be 0 inches at the Project Site. Differential settlement has been addressed in the same section of the document. With regard to the

Comment #	Response
	amount of differential settlement, see response to comment FlournoyJ-14.
FlournoyJ-18	See response to comment FlournoyJ-14. The seismic stability of the tanks would be evaluated during the final structural design of the facility.
FlournoyJ-19	See response to comment FlournoyJ-14.
FlournoyJ-20	See response to comment FlournoyJ-14.
FlournoyJ-21	See response to comment FlournoyJ-14.
FlournoyJ-22	The text has been deleted in response to the comment.
FlournoyJ-23	The text and reference list have been updated with references to the 2008 version of the document.
FlournoyJ-24	As indicated in Section 4.4.1.4, Faulting and Seismicity, the Whittier Fault is located as close as 1,500 feet north of the Project Site. Although the exact well configurations have not been determined, some wells may be drilled more than 1,500 feet north of the drill pad. Based on Figure 2 of a 2010 paper by Yeats and Verdugo (http://earthconsultants.com/cms/pdf/Yeats2010_10066AnnualReport_sm.pdf), the blind thrust faults of the Los Angeles Basin extend to as shallow as 5,000 feet. Some of the proposed wells may extend to that depth. Minor, inactive faults are irrelevant to the seismic hazard at the facility. The site-specific anticipated ground accelerations were completed by Heathcote Geotechnical (2011). The report was prepared by a California Registered Professional Engineer and California Certified Engineering Geologist, who are qualified to evaluate the anticipated ground accelerations.
FlournoyJ-25	Comment restating Draft EIR language is noted. No specific comment on the Draft EIR is included and, therefore, no response is provided.
FlournoyJ-26	Comment restating Draft EIR language is noted. No specific comment on the Draft EIR is included and, therefore, no response is provided.
FlournoyJ-27	Comment restating Draft EIR language is noted. No specific comment on the Draft EIR is included and, therefore, no response is provided.
FlournoyJ-28	Calculated design base ground motions and shaking were summarized, as indicated in the second paragraph of Section 4.4.1.4, Probabilistic Ground Acceleration Analysis. The preliminary geotechnical investigation, completed by Heathcote Geotechnical (2011) has demonstrated that the project is feasible. In addition, see response to comment FlournoyJ-14.
FlournoyJ-29	See response to comment FlournoyJ-28.
FlournoyJ-30	See response to comment FlournoyJ-14.
FlournoyJ-31	The text regarding the 2011 Los Angeles County Building Code has been revised in response to the comment.
FlournoyJ-32	As indicated in Section 4.8.1.1, neither of the creeks located adjacent to the Project Site and associated pipeline route are included as a 100-year flood zone on maps prepared by the Federal Emergency Management Agency (2011). However, Impact WR.7 has been added in response to the comment.
FlournoyJ-33	The comment about the commenter's desire to remove all flammable eucalyptus trees from the site is acknowledged. Removal of all eucalyptus trees on the site is not part of the Project Description, and it is not part of any mitigation measure, and as such, its analysis is outside the scope of this environmental review. The Applicant proposes removing some eucalyptus trees and implementing a fuel modification zone, as per Fire Department requirements, thereby ensuring that risks of wildfire are less than significant with mitigation.
FlournoyJ-34	Water supply issues are addressed in Section 4.12, Fire Protection. Section 4.3, Safety, Risk of Upset, and Hazardous Materials, addresses seismic design standards and audits of the tanks to ensure that they could withstand a seismic event. However, the Applicant does not propose a fire water tank and current codes and fire department requirements do not require a firewater tank. A water

Comment #	Response
	main would provide access to sufficient supplies, which complies with all codes and requirements.
FlournoyJ-35	References to tank failure following seismic events were discussed in Section 4.4.1.4, Earthquakes and Petroleum Facilities. In addition, see response to comment FlournoyJ-28.
FlournoyJ-36	See response to comment FlournoyJ-28. Detailed analysis of roadway drainage would be conducted as part of the permitting phase with the Public Works Department. The EIR presents access roads and the decision makers can select the one most palatable, with statements of overriding considerations as applicable.

Lori Frear

Comment #	Response
FrearL-1	The Draft EIR identifies visual, air quality and potential oil spill impacts to hydrology as significant and unavoidable impacts. Impacts related to noise and vibration can be mitigated to less than significant.
FrearL-2	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.
FrearL-3	Noise impacts could be mitigated to less than significant with a range of mitigation measures detailed in the Draft EIR Section 4.5.
FrearL-4	Section 4.6, Aesthetics and Visual Resources, discusses aesthetics and includes several photo simulations of the Project appearance from various locations. The drilling rig would be the most visible Project component; the rig would be in operation for 3 months during testing, for 5 years during development drilling, and periodically for 3 months per year thereafter. Most other equipment would not be visible from residences. However, the drilling rig and facilities would be visible from trails within the Preserve and from some areas through existing vegetation. The flare would be enclosed so no open flame would be visible. During normal operations, the flare would not burn. Visual impacts are determined to be significant and unavoidable in the Draft EIR. Impacts to water are discussed in Section 4.8, Hydrology and found to be less than significant with mitigation. Impacts to air quality would be significant and unavoidable for construction and GHG, but operational emissions of criteria or toxic pollutants was found to be less than significant with mitigation.
FrearL-5	Wildfire risks are addressed in Section 4.12 of the Draft EIR. Mitigation measure would reduce these impacts to less than significant.

Fuschia1919@aol.com

Comment #	Response
Fuchsia191-1	Comment in opposition to the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.

Jamie Garcia

Comment #	Response
GarciaJ-1	Section 4.3 discusses impacts due to truck accidents and subsequent potential spills. Crude oil would create primarily an environmental impact, similar to a diesel fuel spill. Additional mitigation measures have been added related to driver spill response training and the availability of spill kits. Impacts related to accidents along Penn Street are addressed in mitigation measure T-1f in section 4.7, Transportation and Circulation, and include a number of measures such as limiting time of day of truck travel, enhancement of pedestrian crosswalks, coordination with events, etc.
GarciaJ-2	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant as per the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, as per the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.
GarciaJ-3	Comment is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.
GarciaJ-4	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill.

Comment #	Response
	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc. Crude oil trucks would only use Penn Street during the initial testing phase and for a portion of the construction phase. After that time, crude oil would be transported by pipeline.

Robby Gardner

Comment #	Response
GardnerR-1	Comment in opposition to the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided. However, this response will generally note that, as to the procedure for consideration of the Project, comments from the potentially affected members of the community, including as part of the environmental review process, has been received both at public hearings and by way of written input. Input opportunities included the Notice of Preparation Public Hearing, the Draft EIR Workshop and the Meeting to receive public comments on the Draft EIR. Members of the public also provided comments in writing as to the issues they wanted addressed in the EIR and areas where they felt impacts would occur.

Rebekah Gilbert

Comment #	Response
GilbertR-1	Section 4.7, Transportation and Circulation, in the Draft EIR addresses traffic generated by the construction phase and determines that impacts to traffic levels of service along Penn Street and at the Penn Street and Painter Avenue intersection would be less than significant. Impacts to health risk from diesel pollution were also determined to be less than the SCAQMD thresholds, as discussed in Section 4.1.4. As discussed in Section 4.5.3, noise during operations would increase only minimally and noise levels along Penn Street during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. Appendix H, Socioeconomics, provides an analysis of the proposed Project's impact on property values.
GilbertR-2	The Draft EIR determined that, during the construction phase, traffic issues may arise on Penn Street when other events are also occurring. Mitigation measure T-1f includes several measures that would improve safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, and coordination with Whittier College.

Emma Gotthardt

Comment #	Response
GotthardtE-1	Comment in opposition to the proposed Project is acknowledged. Sections 4.5.3 and 4.7.4.7 provide analyses of the proposed Project's noise and traffic impacts and mitigation measures proposed to reduce those impacts.

Lawrence Gotthardt

Comment #	Response
GotthardtL-1	Comment in opposition to the proposed Project is acknowledged. Section 4.7.4.7 provides an analysis of the proposed Project's traffic impacts and mitigation measures proposed to reduce those impacts. Appendix H, Socioeconomics, provides an analysis of the proposed Project's impact on property values.

Diana Gruber

Comment #	Response
GruberD-1	The Applicant's proposed Project would drill up to 60 wells in one location, where they would be clustered together. The Draft EIR analyzes this Project.

Sandi Gutierrez

Comment #	Response
GutierrezS-1	Comment in opposition to the proposed Project is acknowledged. Sections 4.1.4, 4.5.3, and 4.7.4.7 provide analyses of the proposed Project's air quality, noise and traffic impacts and mitigation measures proposed to reduce those impacts.

Olivia Hamud

Comment #	Response
HamudO-1	Oil drilling can produce unpleasant odors if appropriate measures are not followed. Experiences at the Baldwin Hills Oil Field with offsite odors generated several measures through a special Community Services District. These measures have been applied to the proposed Project with mitigation measures AQ-3, which require ambient air monitoring, engineering controls such as systems to route odors to flares and monitor tank relief valves. As detailed in the air quality Appendix, Appendix B, the implementation of cleaner engines would reduce the construction emissions of NOx, but these emissions would still be above the thresholds. Therefore, the impacts would remain significant. Additional mitigation measures have been proposed by the South Coast Air Quality Management District and these have also been incorporated into the construction mitigation measures. However, due to uncertainties associated with the availability of new truck engines and/or the need for fill dirt at the Landfill, the construction impacts remain significant. A Project can have significant impacts, if the City issues a "statement of overriding considerations".
HamudO-2	Section 4.12, Fire Protection and Emergency Response, addresses emergency response plans in impact FP.1. Mitigation measure FP-1d requires preparation of an emergency response plan in accordance with codes and standards and requires the implementation of fire detection, fire foam, and fire water capabilities.

Comment #	Response
	The LACoFD has a hazmat response team located in Compton and in the City of Industry (5 miles from the project site). However, local stations have several foam tenders which are used for responding to oil well or pipeline fires which could be deployed rapidly in the area. Battalion 8 has indicated that minimal response requirements have been associated with the Honolulu Terrace or Sycamore Canyon facilities since the 2005 Honolulu Terrace fire (according to Section 4.12 in the Draft EIR).
HamudO-3	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov. Acute and chronic risks from the proposed project would be less than significant.
HamudO-4	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A.
HamudO-5	The main impact along Penn Street would be during construction. However, after construction, trucks along the North Access Road and Penn Street would average 2-6 per day. The distances that vehicles would travel to access the site would be dependent on the origin of the trip. For vehicles approaching the site from the west, Penn Street and access through the Landfill Road could be a shorter route. Sections 4.1.4, 4.5.3, and 4.7.4.7 provide analyses of the proposed Project's air quality, noise and traffic impacts and mitigation measures proposed to reduce those impacts.
HamudO-6	The commenter reproduces elements of Appendix H Socioeconomics, but does not provide any additional comment or question; therefore, no response is provided.

Tamara Hardy

Comment #	Response
HardyT-1	The decision makers, the elected representatives of the people of Whittier, will have the final say on whether the Project moves forward. The Draft EIR purpose is to provide information to the public so that an informed decision can be made. Comment in opposition to the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.

Alexandra Heinemann

Comment #	Response
HeinemannA-1	Comment in opposition to the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.

Mary Helfrey

Comment #	Response
HelfreyM-1	Mitigation measure T-1d has been modified in the Final EIR to prohibit parking only during the specified hours.

Larry and Mary Holt

Comment #	Response
HoltLM-1	Comment in opposition of proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided. Risks of oil field operations, including crude oil and gas extraction and processing, are addressed in section 4.3, Safety and Risk. Impacts with mitigation were found to be less than significant.
HoltLM-2	Penn Street would be used by oil tankers only during the test phase (up to 7 trucks per day) and the first part of the construction phase (also 7 trucks per day). After testing and construction, crude oil would be transported by pipeline. Residences purchased their properties along Penn Street with the knowledge that the Savage Canyon Landfill was located at the end of Penn Street and that trucks would utilize Penn Street, at a level averaging more than 60 per day with peaks up to more than 250 (over the last year). After construction, trucks along Penn Street would number from two to six per day (depending on if drilling is ongoing). Construction trips would be much higher, but would be temporary.
HoltLM-3	Traffic levels were measured on the same day in 26 locations, some monitored for 24 hours along roadways. Noise monitoring was also assessed over a period consisting of daytime, evening and nighttime. This is a standard method for analysis in environmental documents; detailed, exact studies are unnecessary and beyond the scope of the DEIR. Air quality utilized the closest monitoring station and extensive modeling of toxic emissions, localized impacts, etc. However, understanding the limits of these studies, the Draft EIR recommends several mitigation measures which would refine the findings by assessing traffic over a longer period and requiring monitoring of noise levels during drilling and operational activities.
HoltLM-4	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project

Comment #	Response
	site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.

GS Hurtado

Comment #	Response
HurtadoGS-1	Comment in opposition to the proposed Project is acknowledged. No specific comment on the Draft EIR is included and, therefore, no response is provided.

Ronald Johnson

Comment #	Response
JohnsonR-1	Penn Street currently has trucks that access the Landfill traveling along the roadway to the rate of an average of 62 trucks round trips per day. Penn Street has experienced, with the Community Church Project, up to 259 round truck trips per day hauling soils. Residents in this area are well aware of the impacts of trucks on residential streets. The Draft EIR does not argue that there are no impacts; only that construction traffic would be temporary, as the Church Project was, and that operational traffic would have impacts that are less than significant. In addition, the standard method for assessing and analyzing traffic impacts for environmental documents does not require detailed, exact studies or extended simulations for sufficient analysis and assessment of environmental impacts.
JohnsonR-2	The AQMD has portable air pollution monitors that could be deployed if residents are concerned about local air quality. However, many streets in Whittier and the area experience truck traffic and pollution in much greater levels and monitoring along all streets is not feasible. Colima Road, for example, experiences traffic levels of an average of about 35,000 vehicles per day. Whittier Blvd also experiences high levels of traffic, as well as trucks. This is not to say that there is no health risk from the traffic along Penn Street; only that, in perspective, it is less than risks presented by other activities in the area. For example, risk levels are estimated to be substantially less than 10 in one million (the AQMD threshold for cancer) due to the Project truck traffic along Penn Street. The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from existing trucks on area roadways, according to the MATES studies, total 810 cancer cases per million, much higher than any risks presented by the project. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.
JohnsonR-3	Truck speeds would be limited by posted speed limits and safe operations along Penn Street.
JohnsonR-4	The contents of the tanker trucks would be crude oil and water, as discussed in the Draft EIR. This mixture would not produce explosions and would most likely just be messy, producing an environmental impact relating to proper cleanup if spilled. There would be greater risk to the public from tanker trucks delivering gasoline or propane in the community, or from gasoline in automobile tanks, which have the potential for explosions.

Comment #	Response
JohnsonR-5	Prohibiting parking along Penn Street has been added to mitigation measure T-1f. Commercial vehicles are already prohibited from parking along residential streets by the City Municipal Code.
JohnsonR-6	Mitigation measures in the Draft EIR limit truck traffic to daylight hours and additional mitigation limits truck traffic on Penn Street to the landfill and no-parking hours of 8am-3pm. The size of the trucks would vary, but the largest trucks would be the crude oil tanker trucks, which would be similar in size to gasoline delivery trucks that deliver gasoline to service stations (gross 10,000-gallon capacity), as indicated in the Draft EIR.
JohnsonR-7	The LACoFD has a hazmat response team located in Compton and in the City of Industry (5 miles from the project site). However, they have several foam tenders which are used for responding to oil well or pipeline fires which could be deployed rapidly in the area. Battalion 8 has indicated that minimal response requirements have been associated with the Honolulu Terrace or Sycamore Canyon facilities since the 2005 Honolulu Terrace fire (according to Section 4.12 in the Draft EIR).
JohnsonR-8	Schools and Whittier College currently have emergency response plans to be implemented in the event of earthquakes, fires or other emergencies. Coordination with area schools would be a part of the emergency response plans and community notification system required under mitigation measures in the Draft EIR.
JohnsonR-9	Initial response to spills and fires would be handled by the local LACoFD, which is fully capable of a range of response activities, including foam teams. DOT requirements related to the transportation of crude oil by tanker truck also requires driver training in Hazmat and spill response (29 CFR 172). Additional mitigation has been added ensuring that all crude oil truck drivers are trained in HAZMAT spill response and each truck has a spill response kit.
JohnsonR-10	Mitigation measure BIO-3a requires the development of an emergency action plan that addresses potential environmental impacts associated with responding to an emergency. Foam teams are located in closer proximity than Compton, according to discussion with Battalion 8 personnel.
JohnsonR-11	Mitigation measures in Section 4.12, Fire Protection and Emergency response, require the development of a community alert system. A five mile radius is probably too large considering that impacts would not extend nearly that far and could give rise to more problems than the actual event.
JohnsonR-12	Police have training in place for the evacuation of residences in the vent of wildfires, as this area is in a very high fire hazard area. These evacuation planning systems would be utilized for evacuation of the more limited scale necessary for an oil well-type fire.
JohnsonR-13	The site would be equipped with fire detection monitors and hydrocarbon monitors. During drilling, monitors in place would detect H2S and hydrocarbons near the drilling site. The results of this monitoring would be reported to the City periodically.
JohnsonR-14	Although some level of disturbance of normal wildlife behavior is expected due to the increased human presence and drilling activities in the Project area, coyote, deer, and other wildlife species are not expected to increase in abundance nor substantially change their behavior so as to avoid one disturbance (drilling and operations) by moving into closer contact with other disturbances (i.e., traffic and even increased human presence). The change in wildlife behavior along the urban edge is expected to be negligible.
JohnsonR-15	The traffic analysis did not identify any issues with trucks making a turn at the Painter Avenue-Penn Street intersection.

Comment #	Response
JohnsonR-16	Penn Park is currently fenced along most of the boundary with the street parking area. Additional fencing is not planned as part of the proposed Project or warranted as part of the mitigation measures.
JohnsonR-17	Air quality impacts along Penn Street were modeled in the Draft EIR and found to be less than significant. Noise impacts from additional traffic were also assessed. Note that the impacts along Penn Street would be due to passing trucks only along an existing roadway that currently has traffic, whereas the impacts to areas near the facility would be continuous, with emissions and noise occurring 24 hours per day from an area that is accustomed to a quiet, non-emitting Preserve.
JohnsonR-18	Trucks traversing Penn Street would utilize the same methods as trash trucks, as they are of similar width.
JohnsonR-19	Impacts to Penn Street would be primarily during the construction phase, which is temporary. During operations and drilling, trucks would traverse Penn Street on the average of once per hour and, when not drilling, only 2 round trip trucks would pass per day. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A.
JohnsonR-20	Additional mitigation has been added to T-1f to direct policies and procedures related to truck speeds, yielding and other issues.
JohnsonR-21	This issue is outside the scope of the EIR.
JohnsonR-22	Not all aspects of the 2010 census data were available at the time of the Draft EIR preparation; therefore, 2000 information was utilized. Changes that would cause differences in environmental justice impacts related to poverty and income distribution would not be expected to change substantially in that timeframe for purposes of the analysis and conclusions in the DEIR.
JohnsonR-23	Not all aspects of the 2010 census data were available at the time of the Draft EIR preparation; therefore, 2000 information was utilized. Changes that would cause differences in environmental justice impacts related to poverty and income distribution would not be expected to change substantially in that timeframe.
JohnsonR-24	The analysis of traffic along Penn Street and Painter Avenue has been updated with additional analysis estimating the maximum levels of traffic that could be generated at the College. The analysis conducted in the Draft EIR included manual counts of traffic levels at intersections during the peak am and pm hours, as well as electronic counts of hourly traffic over a 24 hour period. There are periods, usually on the weekends, when the sports facilities are used, that could cause increased impacts. Therefore, mitigation measure T-1f was applied in the Draft EIR, which requires coordination with Whittier College on events and longer term traffic studies.
JohnsonR-25	Information was obtained directly from Whittier College on the number of sports events and concerts at the College and this information was added to the Draft EIR.

Comment #	Response
JohnsonR-26	The Draft EIR included the Painter Avenue/Penn Street intersection as well as the Penn Street east of Painter Avenue as a roadway segment for traffic counts.
JohnsonR-27	Mitigation measure T-1f requires that the hours of truck traffic on Penn street could be limited to the Landfill operating hours to reduce potential conflicts with evening hour activities at Penn park or Whittier College. The Draft EIR limits truck traffic on the North Access Road to daylight hours only. Mitigation measure T-1f requires developing better crosswalk systems.
JohnsonR-28	It is not possible to mitigate a person wandering to the street and getting injured by a traffic accident. Penn Park is fenced along the parking area to ensure that children do not meander into the street. Police monitoring of Penn Street did not identify existing truck traffic as the cause of excessive speeding. The project would add two to six round truck trips during the operational phase to an existing baseline traffic level of more than 60 trucks per day. Note that oil trucks would only utilize Penn Street until the oil pipeline is constructed. Mitigation measure T-1f attempts to solve many of the existing issues along Penn Street, which will require the positive input and participation of area residents, as well as the City and the College.
JohnsonR-29	Notices are issued in Spanish to areas residences and are available online in Spanish. MRS is capable of providing a Spanish only meeting of so desired by the City. This comment is not a specific comment to the DEIR and so no other response is provided.
JohnsonR-30	Trucks would have many different origins that service the site and exact truck routes could not be prescribed. However, for the period when crude oil is transported by trucks, specific routes could be identified. This has been added to the mitigation.
JohnsonR-31	Mitigation measure T-1f prescribes an extended traffic study for the Penn Street area. The initial analysis conducted in the DEIR is sufficient to determine levels of significance.
JohnsonR-32	The location for parking for the carpool has not been determined at this time. It would depend upon the origin of carpool participants in order to minimize employee driving as well as areas that are available for parking. This would be developed in coordination with the City traffic engineer.
JohnsonR-33	A review of utility rates is outside the scope of the Draft EIR.
JohnsonR-34	The 80+ trucks per day would be for the construction period only and would be temporary. Note that this is less than the 200 trucks per day associated with the Community Church Project that took place in the recent past. In addition, there is no significant impact associated with vibrations from truck traffic, as analyzed in the DEIR.
JohnsonR-35	Section 4.3, Safety, Risk of Upset, and Hazardous Materials Analysis, does not indicate that hundreds of people could be injured and hospitalized by an incident at the facility. A spill from a truck would cause similar impacts as a diesel fuel spill and would be primarily environmental.
JohnsonR-36	Appendix H, Socioeconomics, addresses potential impacts on property values.
JohnsonR-37	Mitigation measure T-1f requires that the hours of truck traffic on Penn street could be limited to the Landfill operating hours to reduce potential conflicts with evening hour activities at Penn park or Whittier College. The Draft EIR limits truck traffic on the North Access Road to daylight hours only.

Comment #	Response
JohnsonR-38	The number of truck trips is not the number of different trucks, but the number of times that a truck accesses the site. Any truck. It could be just the same truck traveling up and back 80 times. It would still be 80 truck trips. These peak trips occur during the construction phase only. Truck trips during the operational phase would average two to six, depending on if drilling is occurring. The gas and crude plant would operate 24 hours per day.
JohnsonR-39	DOT regulations require MSDS to be carried on the trucks. MSDS for crude oil are available online.

Gary D. Jones

Comment #	Response
JonesG-1	Potential losses of property values are estimations by realtors in the area. However, the Socioeconomics Appendix also points out that the case studies in the community where oil and gas facilities are located in close proximity to houses shows no home value depreciation related to that proximity. It should be noted that in other areas that have benefitted from oil development, such as Beverly Hills, home values have improved as a result of investments by the jurisdiction in landscaping, parks and other amenities that overall make the community more desirable.

Katherine Jones

Comment #	Response
JonesK-1	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two trucks per day, or up to six average round trips during the operational drilling phase. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Vibration from trucks is addressed in section 4.5, Noise and Vibration, utilizing studies by CalTRANS indicating that truck vibrations do not produce significant impacts on nearby buildings if roadways are maintained. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road

	operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, safety issues may arise on Penn Street when other events are also occurring. Mitigation measure T-1f includes several measures that would improve safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, and coordination with Whittier College.

John Joyce

Comment #	Response
JoyceJ-1	The visual simulations include removal of a large number of eucalyptus trees. However, as there are no specific plans at this time, according to discussions with the Habitat Authority, to remove additional eucalyptus trees in the area of the Project, additional removal of the trees in the visual simulations was not included.
JoyceJ-2	The Draft EIR states that there would not be any hydraulic fracturing, according to indications by the Applicant. This could be a condition in the permit as it is described in the Project Description.

Harvey and Julie Kahn

Comment #	Response
KahnHJ-1	Weight limits are not applicable for construction-related traffic and traffic destined for residential areas, although trucks must comply with CalTRANS weight limits. The roadways are designed for a limited amount of heavy traffic as per discussions with the Public Works Department. Mitigation measure T-1d requires a pavement monitoring program for all surface streets, which would ensure that damage is addressed and repaired.
KahnHJ-2	Water and gas pipelines are buried at a depth such that passage of vehicles on roadways would not impact the pipelines, as per discussions with the City Public Works. Passage of heavy vehicles would primarily cause damage to roadways: hence mitigation measure T-1d to monitor and repair roadways.
KahnHJ-3	Removal of the calming circles was not included as a mitigation measure as it was determined to be too disruptive to existing traffic. Limits on Project related traffic were determined to be less disruptive to area traffic and are considered feasible and enforceable.
KahnHJ-4	There are currently no plans to widen Mar Vista Street for pedestrian access. The crude oil trucks would utilize Mar Vista Street for a period of about 1 year until the North Access Road and subsequent pipeline is installed. A total of about seven trucks would pass per day, or less than one per hour. Note that trucks utilized Mar Vista Street during the Community Church Construction Project with peak traffic levels of up to 17 round trip trucks per hour. Mar Vista, west and east from Catalina Ave, to Enramada, is currently equipped with sidewalks and pedestrian access.

Lorry Kennedy

Comment #	Response
KennedyL-1	Comment in opposition of the proposed Project is acknowledged. No specific comment to the DEIR is made, and so no response is provided.
KennedyL-2	Impacts associated with air quality are quantified in the Draft EIR. After construction, the only area that has significant and unavoidable impacts would be GHG emissions, which might not be able to be reduced to below the SCAQMD thresholds. Hydrology also identifies the potential for oil spills reaching water resources as a significant and unavoidable impact.

Malan and Alicia Lai

Comment #	Response
LaiMA-1	Penn Street would be used by oil tankers only during the test phase (up to 7 trucks per day) and the first part of the construction phase (also 7 trucks per day). This would last for about 1.5 years. After testing and construction, crude oil would be transported by pipeline. Residences purchased their properties along Penn Street with the knowledge that the Savage Canyon Landfill was located at the end of Penn Street and that trucks would utilize Penn Street, at a level averaging more than 60 per day with peaks up to more than 250 (over the last year). After construction, trucks along Penn Street would number from two to six truck trips per day (depending on if drilling is ongoing). No oil trucks would use Penn Street after the first 1.5 years. Sections 4.1.4, 4.5.3, and 4.7.4.7 provide analyses of the proposed Project's air quality, noise and traffic impacts and mitigation measures proposed to reduce those impacts.
LaiMA-2	No trees would be removed and parking would not be affected along Penn Street. Penn Street would only be utilized for through traffic from and to the Landfill. There would be some impacts to street congestion, but Section 4.7, Transportation and Circulation, determined that the levels of congestion would be below the significance criteria and that the level of service would be acceptable.
LaiMA-3	No trees would be removed and parking would not be affected along Penn Street. Penn Street would only be utilized for through traffic from and to the Landfill. There would be some impacts to street congestion, but Section 4.7, Transportation and Circulation, determined that the levels of congestion would be below the significance criteria and that the level of service would be acceptable.
LaiMA-4	Mitigation measure T-1f requires the development of a longer-term traffic study in order to assess potential conflicts between construction traffic and events at the College and the Park.
LaiMA-5	The choice of using the Landfill North Road for access has been a balance between impacts on humans via traffic and recreation, and impacts on biology. The Draft EIR biologists agree that using the southern access road (Catalina Avenue) would result in the least impacts to biological resources. The decision makers could utilize the information in the Draft EIR, and make an overriding consideration to require the use of other alternative routes, even with the significant and unavoidable impacts during construction. The Draft EIR does not attempt to weigh the issue areas and assigns equal value to each impact, which may not reflect the concerns of the community.

Comment #	Response
LaiMA-6	Potential compensation of homeowners is not within the scope of the Draft EIR and, therefore, no response is provided.
LaiMA-7	Mitigation measures require the monitoring of traffic routes for impacts to street maintenance that may require repairs.
LaiMA-8	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service on Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact.
LaiMA-9	No specific comment is included on the EIR and, therefore, no response is provided. Comment in opposition to the proposed Project is acknowledged.

Bruce LaMarche

Comment #	Response
LaMarcheB-1	The 2006 University of Southern California User Survey is the most recent and comprehensive survey taken regarding visitor use at the Preserve. Recreational levels have most likely not changed substantially since this timeframe. As stated in Section 4.14 Recreation, Mitigation Measures REC-1 and REC-2, AQ-3a through AQ-3e, N-1a and N-1b, N-2a through N-2c and N-4, AE-1a and AE-1b are designed to reduce to the greatest possible extent the impacts to recreation use. The decision makers will determine whether additional, as yet unidentified, mitigation measures can be implemented to further reduce potential impacts.
LaMarcheB-2	None of the three trails within the Arroyo Pescadero Trailhead would be permanently closed. Section 4.14.4, REC.1 discussion has been modified to include the closure of a portion of the Arroyo San Miguel Trail for up to eight years and the related mitigation measure (BIO-4n) that may be implemented to reduce the impact to recreational use of this closure. Mitigation measure REC-2 has also been added regarding the temporary closure of portions of the Arroyo Pescadero Trailhead affected by construction of the secondary access route and underground pipeline installation.
LaMarcheB-3	The Draft EIR indicates the impacts on views due to the drilling rig would be significant and unavoidable. This is a decision for the City to balance and means that the City cannot approve the environmental document without a statement of overriding considerations.
LaMarcheB-4	The pad area, where crude oil processing, storage and shipping; gas processing and drilling, would take place, would encompass 6.9 acres. Additional areas, as indicated in the Project Description, would be required for roads, fuel modification and fire access. Also, additional areas would be temporarily disturbed and then re-vegetated.

Comment #	Response
LaMarcheB-5	Trucks would have many different origins that service the site and exact truck routes could not be prescribed. However, for the period when crude oil is transported by trucks, specific routes could be identified. This has been added to the mitigation. The removal of traffic calming devices has not been included as a mitigation measure in the DEIR as it was determined to be too disruptive to the traffic on Mar Vista.
LaMarcheB-6	Vibration modeling is conducted to assess impacts from potential vibrations at the pad sites and drilling. Vibrations from vehicle traffic are assessed using literature from Caltrans. Vibration from vehicles would be minimal if speeds and roadway maintenance are maintained. These two issues have been added as mitigation measures in the Final EIR. According to discussions with the City Public Works Department, the 3 ton weight limit is allowed by the State requirement (Vehicle Code Section 35701) and the City Municipal Code for residential areas and is allowed to be exceeded if the destination is located within the residential area
LaMarcheB-7	The use of the North Access Road would allow for the reduction in significant and unavoidable impacts along Mar Vista Street during the construction phase of the Project associated with traffic and circulation. This would reduce the number of significant and unavoidable impacts that the Project would generate. However, the decision makers could utilize the information in the EIR, and make an overriding consideration to require the use of Catalina Avenue only, even with the significant and unavoidable impacts. Note that, after construction, all vehicles except trucks would utilize Catalina Avenue and only an average of two trucks per day would utilize the North Access Road, or up to six average round trips during the operational drilling phase. Impacts to the habitat along the North Access Road was assessed based on noise levels generated by trucks and a required revegetation amount of over 8 acres was identified (see mitigation measure BIO-1b in section 4.2, Biological Resources.

Peggy Luna

Comment #	Response
LunaP-1	Penn Street currently has trucks that access the Landfill traveling along the roadway to the rate of an average of 62 trucks round trips per day. Penn Street has experienced, with the Community Church Project, up to 259 round truck trips per day hauling soils. Residents in this area are well aware of the impacts of trucks on residential streets. The Draft EIR does not argue that there are no impacts; only that construction traffic would be temporary, as the Church Project was, and that operational traffic would have impacts that are less than significant.
LunaP-2	The AQMD has portable air pollution monitors that could be deployed if residents are concerned about local air quality. However, many streets in Whittier and the area experience truck traffic and pollution in much greater levels and monitoring along all streets is not feasible. Colima Road, for example, experiences traffic levels of an average of about 35,000 vehicles per day. Whittier Blvd also experiences high levels of traffic, as well as trucks. This is not to say that there is no health risk from the traffic along Penn Street; only that, in perspective, it is less than risks presented by other activities in the area. For example, risk levels are estimated to be substantially less than 10 in one million (the AQMD threshold for cancer) due to the Project truck traffic along Penn Street. The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project Site from primarily diesel exhaust from existing trucks on area roadways, according to the MATES studies, total 810 cancer cases per

Comment #	Response
	million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.
LunaP-3	Truck speeds would be limited by posted speed limits and safe operations along Penn Street.
LunaP-4	The contents of the tanker trucks would be crude oil and water, as discussed in the Draft EIR. This mixture would not produce explosions and would most likely just be messy, producing an environmental impact if spilled. There would be greater risk to the public from tanker trucks delivering gasoline or propane in the community, or from gasoline in automobile tanks, which have the potential for explosions.
LunaP-5	Prohibiting parking along Penn Street has been added to mitigation measure T-1f. Note that commercial vehicles are prohibited from parking along residential streets by the City Municipal Code.
LunaP-6	Mitigation measures in the Draft EIR limit truck traffic to daylight hours. The size of the trucks would vary, but the largest trucks would be the crude oil tanker trucks, which would be similar in size to gasoline delivery trucks that deliver gasoline to service stations (gross 10,000-gallon capacity), as indicated in the Draft EIR.
LunaP-7	The LACoFD has a hazmat response team located in Compton and in the City of Industry (5 miles from the project site). However, they have several foam tenders which are used for responding to oil well or pipeline fires which could be deployed rapidly in the area. Battalion 8 has indicated that minimal response requirements have been associated with the Honolulu Terrace or Sycamore Canyon facilities since the 2005 Honolulu Terrace fire (according to Section 4.12 in the Draft EIR).
LunaP-8	Schools and Whittier College currently have emergency response plans to be implemented in the event of earthquakes, fires or other emergencies. Coordination with area schools would be a part of the emergency response plans and community notification system required under mitigations in the Draft EIR.
LunaP-9	Initial response to spills and fires would be handled by the local LACoFD, which is fully capable of a range of response activities, including foam teams. DOT requirements related to the transportation of crude oil by tanker truck also requires driver training in Hazmat and spill response (29 CFR 172). Additional mitigation has been added ensuring that all crude oil truck drivers are trained in HAZMAT spill response and each truck has a spill response kit.
LunaP-10	Mitigation measure BIO-3a requires the development of an emergency action plan that addresses potential environmental impacts associated with responding to an emergency. Foam teams are located in closer proximity than Compton, according to discussion with battalion 8 personnel.
LunaP-11	Mitigation measures in Section 4.12, Fire Protection and Emergency response, require the development of a community alert system. A 5 mile radius is probably too large considering that impacts would not extend nearly that far and could give rise to more problems than the actual event.
LunaP-12	Police have training in place for the evacuation of residences in the vent of wildfires, as this area is in a very high fire hazard area. These evacuation planning systems would be utilized for evacuation of the more limited scale necessary for an oil well-type fire.
LunaP-13	The site would be equipped with fire detection monitors and hydrocarbon monitors. During drilling, monitors in place would detect H2S and hydrocarbons near the drilling site. The results of this monitoring would be reported to the City periodically.

Comment #	Response
LunaP-14	Although some level of disturbance of normal wildlife behavior is expected due to the increased human presence and drilling activities in the Project area, coyote, deer, and other wildlife species are not expected to increase in abundance nor substantially change their behavior so as to avoid one disturbance (drilling and operations) by moving into closer contact with other disturbances (i.e., traffic and even increased human presence). The change in wildlife behavior along the urban edge is expected to be negligible.
LunaP-15	The traffic analysis did not identify any issues with trucks making a turn at the Painter Avenue-Penn Street intersection.
LunaP-16	Penn Park is currently fenced along most of the boundary with the street parking area. Additional fencing is not planned.
LunaP-17	Air quality impacts along Penn Street were modeled in the Draft EIR and found to be less than significant. Noise impacts from additional traffic were also assessed. Note that the impacts along Penn Street would be due to passing trucks only along an existing roadway that currently has traffic, whereas the impacts to areas near the facility would be continuous, with emissions and noise occurring 24 hours per day from an area that is accustomed to a quiet, non-emitting Preserve.
LunaP-18	Trucks traversing Penn Street would utilize the same methods as trash trucks, since they are of similar width.
LunaP-19	Impacts to Penn Street would be primarily during the construction phase, which is temporary. During operations and drilling, trucks would traverse Penn Street on the average of once per hour and, when not drilling, only two round trip trucks would pass per day. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A.
LunaP-20	Additional mitigation has been added to T-1f to direct policies and procedures related to truck speeds, yielding and other issues.
LunaP-21	No specific comment on the Draft EIR is included and, therefore, no response is provided.
LunaP-22	Not all aspects of the 2010 census data were available at the time of the Draft EIR preparation; therefore, 2000 information was utilized. Changes that would cause differences in environmental justice impacts related to poverty and income distribution would not be expected to change substantially in that timeframe.
LunaP-23	Not all aspects of the 2010 census data were available at the time of the Draft EIR preparation; therefore, 2000 information was utilized. Changes that would cause differences in environmental justice impacts related to poverty and income distribution would not be expected to change substantially in that timeframe.
LunaP-24	The analysis of traffic along Penn and Painter Avenue has been updated with additional analysis estimating the maximum levels of traffic that could be generated at the College. The analysis conducted in the Draft EIR included manual counts of traffic levels at intersections during the peak am and pm hours, as well as electronic counts of hourly traffic over a 24 hour period. There are

Comment #	Response
	periods, usually on the weekends, when the sports facilities are used, that could cause increased impacts. Therefore, mitigation measure T-1f was applied in the Draft EIR, which requires coordination with Whittier College on events and longer term traffic studies.
LunaP-25	Information was obtained from Whittier College on the number of sports events and concerts at the College and this information was added to the Draft EIR.
LunaP-26	The Draft EIR included the intersection of Painter Avenue and Penn Street as well as the segment of Penn Street east of Painter Avenue for traffic counts.
LunaP-27	Mitigation measure T-1f requires that the hours of truck traffic on Penn street could be limited to the Landfill operating hours to reduce potential conflicts with evening hour activities at Penn park or Whittier College. The Draft EIR limits truck traffic on the North Access Road to daylight hours only. Mitigation measure T-1f requires developing better crosswalk systems.
LunaP-28	It is not possible to mitigate a person wandering to the street and getting injured by a traffic accident. Penn Park is fenced along the parking area to ensure that children do not meander into the street. Police monitoring of Penn Street did not identify existing truck traffic as the cause of excessive speeding. The Project would add two to six trucks during the operational phase to an existing baseline traffic level of more than 60 per day. Note that oil trucks would only utilize Penn Street during the construction period. Mitigation measure T-1f attempts to solve many of the existing issues along Penn Street, which will require the positive input and participation of area residents, as well as the City and the College.
LunaP-29	Notices are issued in Spanish to area residences and are available online in Spanish. MRS is capable of providing a Spanish-only meeting if the City chooses to do so.
LunaP-30	Trucks would have many different origins that service the site and exact truck routes could not be prescribed. However, for the period when crude oil is transported by trucks, specific routes could be identified. This has been added to the mitigation.
LunaP-31	Mitigation measure T-1f prescribes an extended traffic study for the Penn Street area.
LunaP-32	The location for parking for the carpool has not been determined at this time. It would depend upon the origin of carpool participants in order to minimize employee driving as well as area that are available for parking. This would be developed in coordination with the City traffic engineer.
LunaP-33	A review of utility rates is outside the scope of the Draft EIR.
LunaP-34	The 80+ trucks per day would be for the construction period only and would be temporary. This is less than the 200 trucks per day associated with the Community Church Project.
LunaP-35	Section 4.3, Safety, Risk of Upset, and Hazardous Materials Analysis, does not indicate that hundreds of people could be injured and hospitalized by an incident at the facility. A spill from a truck would cause similar impacts as a diesel fuel spill and would be primarily environmental.
LunaP-36	Appendix H, Socioeconomics, addresses potential impacts on property values.

Comment #	Response
LunaP-37	Mitigation measure T-1f requires that the hours of truck traffic on Penn street could be limited to the Landfill operating hours to reduce potential conflicts with evening hour activities at Penn park or Whittier College. The Draft EIR limits truck traffic on the North Access Road to daylight hours only.
LunaP-38	The number of truck trips is not the number of different trucks, but the number of times that a truck accesses the site. Any truck. It could be just the same truck traveling up and back 80 times. It would still be 80 truck trips. These peak trips occur during the construction phase only. Truck trips during the operational phase would average two to six truck trips, depending on if drilling is occurring. The gas and crude plant would operate 24 hours per day.
LunaP-39	DOT regulations require MSDS to be carried on the trucks. MSDS for crude oil are available online.

Anthony Martinez

Comment #	Response
MartinezA-1	Noise and pollution are addressed in sections 4.1 and 4.5 in the DEIR. Impacts from pollution are found to be significant and unavoidable for air pollution associated with construction and GHG emissions. Impacts associated with noise were determined to be less than significant with mitigation. As part of the SCAQMD authority to approve construction permit, the fugitive dust plan would be submitted to the SCAQMD. At this point, the details of the plan would be finalized. Inspections would be performed by both the City and the SCAQMD. It is standard procedure for such a plan to be prepared after environmental review, based on a requirement that such plan be approved. Such plan will include necessary measures for dust control, monitoring and enforcement, as mandated by the SCAQMD, and will be available to the public.
MartinezA-2	The SCAQMD would require the use of binders or other methods and would determine if they are sufficient to mitigate the dust levels. Opacity measurements taken by a registered fugitive dust technician would be utilized to ensure that offsite fugitive dust is not allowed. Soil binders would have to be approved by the Habitat Authority in order to ensure habitat compatibility.
MartinezA-3	Construction emissions could be reduced to below the SCAQMD thresholds with mitigation, although the feasibility and availability of some of the mitigation measures are not known, the impacts remain significant and unavoidable. Therefore, the Project may only be approved if the City adopts a statement of overriding considerations. Please see comment MartinezA-1 for fugitive dust.
MartinezA-4	GHG reduction strategies are varied and in a rapidly evolving state. The most effective methods for reducing GHG emissions would be to reduce the GHG emissions at the Project Site through efficiency and other methods. However, as the specifics of the Project design are not developed at this stage, including the model and type of heaters or motors used, the exact levels of potential GHG reductions cannot be determined. By requiring the Applicant to quantify GHG emissions and to reduce them, this is an incentive for the Applicant to utilize more efficient systems when it chooses the specifics of implementation of the Project. If onsite reduction cannot be achieved, there are numerous community-wide projects that could be developed that would allow for a substantial reduction in GHG that could more than offset the Project emissions. However, it is premature at this point to develop relationships and commitments with other agencies, such as MTD, related to this project as would be required in order to ensure the level of GHG reductions.

Comment #	Response
MartinezA-5	Mitigation measure BIO-4a defines impacts related to noise what is required to reduce noise impacts. Mitigation measures in section 4.5, Noise and Vibration, also address numerous mitigation measures that would be required to reduce noise levels. The City would be responsible for oversight and compliance, as detailed in section 8 of the DEIR.
MartinezA-6	The compliance verification that would ensure that the applicant's lighting plan includes the prescribed lighting described in mitigation measure BIO-4b would occur by the City and the Habitat Authority, and would occur prior to issuance of grading permits as detailed in the Mitigation Monitoring Plan (page 4.2-76).
MartinezA-7	Mitigation measure BIO-4k requires a biological monitor to be present during the initial groundwork who would be able to halt work if permit requirements are not being met. A monitor would be hired by the City to monitor all permit conditions associated with the permit, including monitoring of vehicle speeds.
MartinezA-8	Comment in support of the 100-foot buffer is acknowledged.
MartinezA-9	Neither CDFG nor Whittier Audubon made any comment on the 300-foot buffer and, the buffer distance remains unchanged and appropriate.
MartinezA-10	Mitigation measures BIO-4e and 4f provide sufficient detail for the biological monitor to protect potential nesting raptors and songbirds, such as distance requirements, etc.
MartinezA-11	Language in mitigation measure BIO-4i has been changed as recommended in the Final EIR.
MartinezA-12	Signs would alert construction workers to avoid sensitive resources and are typically effective at reducing some impacts to biological resources.
MartinezA-13	Risk levels are not identified as being a significant and unavoidable impact primarily because the facilities would be located far enough away from receptors that impacts would be limited. However, site security and vandalism can contribute to releases and risk levels at facilities. In addition, audits against applicable codes and standards ensure appropriate fire and release detection as well as appropriate maintenance and training. Mitigation measure SSR-1b requires audits against codes and standards.
MartinezA-14	Vibration impacts on biology are discussed in Section 4.2, Biological Resources. Vibration levels are not expected to impact residences as they are located too far away. Vibration impacts on wildlife would be infrequent and is also not expected to be significant. A Project with less drilling activity, by drilling fewer wells, would have the potential for fewer high-vibration events, but impacts would remain less than significant.
MartinezA-15	The application of noise mitigation would reduce the noise impacts from drilling and operations to less than significant. Less than significant impacts are listed in Table ES-3.
MartinezA-16	The Habitat Authority is designated as the reviewer and provides approval for the landscaping plan.
MartinezA-17	"Less obtrusive" has been utilized to describe the use of painting for facility components.

Comment #	Response
MartinezA-18	The comment is outside the scope of the Draft EIR and, therefore, no response is provided. The EIR cannot impose requirements on the make-up of City staff.
MartinezA-19	The comment appears to be a relic of the previous draft as the impact WR.4 discussion includes all pipelines, storage tanks, and processing equipment. DOGGR was also cited in the discussion.
MartinezA-20	See response to comment MartinezA-19. All appropriate standards are included in the assessment.
MartinezA-21	Monitoring and release reporting requirements have been included in mitigation WR-4a and WR-4b. A leak detection system has been mandated in mitigation WR-4c and secondary containment around drilling areas as per WR-3b.
MartinezA-22	Impact LU.2 would be Less Than Significant with Mitigation. LU.3 would be Significant and Unavoidable. Referencing relevant mitigation measures from other EIR sections (N-1a through N-1c, N-2a through N-4, and AE-1a and AE-1b) is sufficient to prevent the document from becoming cumbersome and unduly repetitious.
MartinezA-23	Impact REC.2 would be Less Than Significant with Mitigation. There is not an Impact REC.4. REC.3 would be Significant and Unavoidable. Referencing relevant mitigation measures from other EIR sections is sufficient to prevent the document from becoming cumbersome and unduly repetitious.
MartinezA-24	Localized impacts are determined to be less than significant. Emissions produce the exceedances of the regional thresholds, not the localized thresholds.
MartinezA-25	Air quality standards promulgated by the State and the Federal EPA are health-based standards used to measure the impacts of emission on local and regional receptors. Mitigation measures proposed in section 4.1, Air Quality, reduce emissions levels to below the standards (except for the construction regional NOx emissions thresholds).
MartinezA-26	Storage tanks can be equipped with vapor recovery and blanketing systems, such as the tanks in the proposed Project, which are used to reduce the emissions to the air. This method also reduces odor events as it reduces emissions of tank vapors to the air and is frequently required by the South Coast Air Quality Management District. However, one aspect of these systems, which is not addressed in “standard oil operations,” is that, in some instances, the vapor recovery and blanketing systems are not sufficient to process all of the tank vapors. In this case, tank vapors build up in the tank vapor space and can subsequently be released to the air through release valve systems, installed to prevent over pressuring the tanks, producing an odor event. Normally this event occurs if tank levels rise quickly or the vapor recovery system is overloaded. In “standard oil operations,” this release would go undetected. Mitigation measure AQ-3b would require tank vapor space monitoring to ensure that these scenarios are monitored for and reduces the frequency of tank vapor space releases (even with a vapor recovery system). This requirement was developed though an engineering evaluation of more than 50 tanks at the Baldwin Hills Oil Field and required as part of the Baldwin Hills regulatory framework.
MartinezA-27	Storage tanks can be equipped with vapor recovery and blanketing systems, such as the tanks in the proposed Project, which are used to reduce the emissions to the air. This method also reduces odor events as it reduces emissions of tank vapors to the air and is frequently required by the South Coast Air Quality Management District. However, one aspect of these systems, which is not addressed in “standard oil operations,” is that, in some instances, the vapor recovery and blanketing systems are not sufficient to process all of the tank

Comment #	Response
	vapors. In this case, tank vapors build up in the tank vapor space and can subsequently be released to the air through release valve systems, installed to prevent over pressuring the tanks, producing an odor event. Normally this event occurs if tank levels rise quickly or the vapor recovery system is overloaded. In "standard oil operations", this release would go undetected. Mitigation measure AQ-3b would require tank vapor space monitoring to ensure that these scenarios are monitored for and reduces the frequency of tank vapor space releases (even with a vapor recovery system). This requirement was developed though an engineering evaluation of more than 50 tanks at the Baldwin Hills Oil Field and required as part of the Baldwin Hills regulatory framework.
MartinezA-28	The odor minimization plan would be developed in coordination with the City and the South Coast Air Quality Management District and would be a requirement of obtaining permits. It is standard for this type of plan to be developed as part of the permitting process, rather than as part of the EIR environmental review process. All complaints, reported either to the City or to the South Coast Air Quality Management District, are required to maintain documentation on follow-up and resolution, as is the case with the current complaint systems.
MartinezA-29	Section 4.12, Fire Protection and Emergency Response, includes mitigation measure FB-1b to establish a community notification system.
MartinezA-30	The edge of the oil field property would be where residences are located or where recreational trails are available to the public.
MartinezA-31	A detailed analysis of emissions from all components of the Project was conducted in the Draft EIR and included tanks, flares, combustion equipment, and fugitive emissions from wells, valves, etc. This analysis was performed utilizing the HARP model and following the procedures defined by the South Coast Air Quality Management District for health risk assessments. Of the sources of toxic emissions, diesel emissions generate the vast majority of the risk. By mitigating the largest source of risk, diesel emissions, the emissions of toxic materials are below the threshold levels. Note that during operations, most of the processing equipment operates on electricity. Only occasional flaring and the heater are combustion sources (aside from diesel combustion during drilling).
MartinezA-32	This mitigation measure has been removed from the Draft EIR since it was related to the previous facility configuration.
MartinezA-33	Impact BIO.3 has been changed in the Final EIR to reflect the comment. Cleanup of spills in all areas are regulated by the State and Federal agencies.
MartinezA-34	Mitigation measure GR-5b has been updated to include that any contaminated soil shall be excavated under a work plan approved by the City of Whittier per MM SR-3 and other applicable agencies, such as the DTSC and RWQCB. Section 4.2, Safety and Risk, address the recent assessment of ground contamination in the project vicinity. Section 2 describes the environmental remediation program that was completed in 1997.
MartinezA-35	In the event that the existing fill requires excavation and compaction, such a procedure could be completed in stages such that only the disturbed areas are used for temporary stockpiling of soil. Although not specified in the Project Description, it is reasonable to assume that such a methodology would be employed. Any contamination found during excavation will be treated and remediated in accordance with the work plan referenced in response to comment MartinezA-34.

Comment #	Response
MartinezA-36	The Draft EIR did not consider the requirement for secondary containment for the proposed pipelines. The current standards and pipeline construction coupled with the detection systems provide adequate construction and protection, without the need for the measures suggested in the comment.
MartinezA-37	The application of noise mitigation, as detailed in mitigation measures N-2a, b would reduce the drilling noise levels to less than significant. Mitigation measures would reduce the operational noise levels to less than significant with mitigation. Table ES-2 only lists the impacts that remain significant and unavoidable after mitigation. Table ES-3 lists the impacts that would be less than significant after mitigation.
MartinezA-38	The EIR preparers concur with the commenter that the Applicant has to comply with the Regional Water Quality Control Board storm water requirements as described in mitigation measure SR-3.
MartinezA-39	The disagreement by the commenter on the classification of land use impacts in the Draft EIR is acknowledged. The EIR analysis finds the proposed mitigation measures for Impacts LU.1, and LU.4 through LU.6 to reduce the impacts to a less than significant level.
MartinezA-40	The discussion of 7 acres has been removed from the Project Description and the executive summary.
MartinezA-41	As indicated in the section heading, Section 2.1.1 City Objectives, identifies the City's objectives. It would be inappropriate to state objective outcomes within this section or to evaluate feasibility or value of City's objectives.
MartinezA-42	As indicated in the section heading, Section 2.1.2 Matrix Objectives, identifies the Applicant's objectives. It would be inappropriate to state objective outcomes within this section.
MartinezA-43	The issue of the use of local businesses in the project implementation is unrelated to preparation of the environmental document itself, and thus no additional response needs to be provided. Moreover, in any comprehensive environmental analysis, experts in particular fields must be used, regardless of their location.
MartinezA-44	The comment is outside the scope of the Final EIR and, therefore, no response is provided. The comment does not relate to environmental issues and may not be legally enforceable in any event.
MartinezA-45	The EIR preparers have reviewed contamination and remediation reports for the Project Site and have used this information to assess the existing baseline. These are discussed in section 2 and section 4.3.
MartinezA-46	Questions about mineral rights are not pertinent to the Draft EIR and no additional response is merited. Lease parcels are listed in the DEIR section 2 and all lease parcels are owned by the City and located within the Preserve. No drilling would take place under private property as directed by DOGGR.
MartinezA-47	The activities conducted for assessment do not have any environmental impact and are typical activities conducted in the course of assessing environmental impacts. These are not required to be evaluated as part of the DEIR.
MartinezA-48	The comment is outside the focus of the Draft EIR and, therefore, no response is provided. See also, response to Comment MartinezA-47.

Comment #	Response
MartinezA-49	The construction and installation of the crude oil and gas pipelines before the Applicant determines that the Project would move forward would also result in substantial impacts, including construction along 2.8 miles of roadways in order to install the pipelines. The transportation of the crude oil/water by truck would generate up to 7 trucks per day, which is not substantial given the number of trucks already passing along Colima Road and did not warrant the impacts associated with a 2.8 mile pipeline installation. Emissions from the testing phase flare would be less than the SCAQMD thresholds for regional and localized impacts. The recommended course of action would generate more impacts than those of the proposed project.
MartinezA-50	The use of drilling mud basins has been prohibited in the Final EIR and all muds are required to be contained within Baker-type enclosed tanks instead.
MartinezA-51	Mitigation measures are included in the Draft EIR that require the submission of spill containment and prevention plans, which are required by regulations to specify reporting measures.
MartinezA-52	The primary concern of the CEQA process and the Draft EIR is impacts on the public and the environment. OSHA related issues that could impact workers due to handling of materials are outside the scope of the EIR.
MartinezA-53	The oil processing plant is substantially simpler than the gas processing plant and therefore requires less description. Table 2-12 and Figure 2-12 include the oil processing plant equipment and flow diagrams.
MartinezA-54	Section 2.0, Project Description, addresses only the proposed Project. Section 5.0, Alternatives, and Section 6.0, Comparison of Proposed Project and Alternative, discuss alternatives. The schedule and truck trips would be the same for the alternatives as for the proposed Project. Detailed truck trip data is included in Appendix A.
MartinezA-55	The Draft EIR addresses cumulative impacts within each issue area in Section 4. Section 3.0 only identifies the list of projects that could have a cumulative impact. These discussions are in compliance with Section 15130 of the CEQA Guidelines regarding the consideration of cumulative impacts.
MartinezA-56	Appendix J of the Draft EIR identifies all documents referenced in the Draft EIR, including prior planning documents.
MartinezA-57	The Draft EIR addresses cumulative impacts within each issue area in Chapter 4. Section 3.0 only identifies the list of projects that could have a cumulative impact.
MartinezA-58	The Draft EIR addresses cumulative impacts within each issue area in Chapter 4. Section 3.0 only identifies the list of projects that could have a cumulative impact. Other projects are discussed in sufficient detail and there is no need for revision or recirculation of the DEIR.
MartinezA-59	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, addresses the quantities of oil that could be spilled given a pipeline break, as well as the impacts of flammable gas releases at various points and stages of the process. Consequences of releases are specifically addressed, as well as mitigation measures that could reduce the impacts. An emergency response plan would be required as part of the permitting process. Mitigation measure FP-1d, in Section 4.12, Fire Protection and Emergency Response, requires the development and submittal of an emergency response plan. It is beyond the scope of the DEIR to discuss specific costs of mitigation measures or emergency responses

Comment #	Response
MartinezA-60	The Draft EIR addresses mitigation measure monitoring, authority, enforcement responsibility and monitoring procedures in section 8.
MartinezA-61	Table 4.1-1 defines temperatures and climate for the Los Angeles Basin. Modeling data files are based on the closest met station as provided by the SCAQMD. .
MartinezA-62	These erosion and sediment control measures are permanent in that they would not be removed or relocated subsequent to construction. These measures would help establish permanent erosion control on-site. Monitoring and maintenance of these measures are required only in the short-term, as would be true of any permanent erosion control measures. The permanent erosion control measures required in the mitigation measure are specific examples from the CSQABMP Handbook.
MartinezA-63	Specific BMPs were provided in mitigation WR-2a. As indicated in mitigation measure WR-2b, a SWPPP would be completed prior to construction and would be available to the public for review at that point in time. Such a plan would provide more detailed erosion control measures. Such specifics are not required as part of the CEQA process. However, mitigation measure WR-2b has been edited to indicate that that the SWPPP shall be designed by a QSD and overseen by a QSP.
MartinezA-64	A requirement for completion of a drainage plan, based on final project design, is a standard CEQA mitigation that would not be considered deferred mitigation, as a reasonable assumption can be made that such standard engineering practices would reduce impacts to less than significant levels, without having to provide final design engineering. Final design documents would be available to the public for review at that point in time This comment may be a relic of the previous draft, as the mitigations referenced, WR-2a to WR-2c, do not match those in the DEIR pertaining to a drainage plan.
MartinezA-65	See response to comment MartinezA-63.
MartinezA-66	See response to comment MartinezA-64.
MartinezA-67	Assuming the comment refers to Mitigation Measures WR-3a through WR-3e, mitigation WR-3e includes preparation of an Oil Spill Contingency Plan. The additional information requested in the comment would be included in this plan. Such detail is not required under CEQA.
MartinezA-68	Text has been added to mitigation WR-3e mandating regulatory oversight during spill cleanup.
MartinezA-69	Assuming the comment refers to Mitigation Measures WR-3c, it is reasonable to assume that any contaminated soil would be excavated and hauled off-site in accordance with all federal, state, and local regulations, which mandate completion of the procedures mentioned in the comment.
MartinezA-70	Text has been added to mitigation WR-3a in response to the comment.
MartinezA-71	Text has been added to mitigation WR-3e in response to the comment. The DEIR provides extensive detailed analysis on the proposed Project. Many plans and procedures are generally not developed at the CEQA stage of the project, but a determination of significance can be made without the detailed plans normally developed as part of the post-CUP permitting process.

Steve Mather

Comment #	Response
MatherS-1	Comment in opposition of proposed Project is acknowledged. Regarding Proposition A, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.

Alfred Mayerski

Comment #	Response
MayerskiA-1	Comment in opposition to the proposed Project is acknowledged. No specific comment is provided, so no response is provided. General topics in the comment, such as traffic, notice, impact on wildlife, etc. are discussed in detail in the DEIR.

Teresa Molina

Comment #	Response
MolinaT-1	Potential losses of property values are only estimates by realtors in the area. However, the Socioeconomics Appendix also points out that the case studies in the community where oil and gas facilities are located in close proximity to houses shows no home value depreciation related to that proximity. It should be noted that in other areas that have benefitted from oil development, such as Beverly Hills, home values have improved as a result of investments by the jurisdiction in landscaping, parks and other amenities that overall make the community more desirable.

Gus Montano

Comment #	Response
MontanoG-1	The DEIR includes numerous mitigation measures, including clean flares, clean diesel engines, diesel particulate filters, cleaner construction equipment, and reductions in fugitive dust emissions that would reduce most emissions and impacts on public health to less than significant, as discussed in detail in Section 4.1 of the DEIR. Note only construction criteria emissions and GHG emissions would remain significant and unavoidable.

Jon Myers

Comment #	Response
MyersJ-1	The pad area, where crude oil processing, storage, and shipping and gas processing and drilling, would take place, would encompass 6.9 acres. Additional areas, as indicated in Section 2.0, Project Description, would be required for roads, fuel modification, and fire access. Also, additional areas would be temporarily disturbed and re-vegetated.

Comment #	Response
MyersJ-2	No specific comment is included on the Draft EIR and, therefore, no response is provided. The questions presented are beyond the scope of the DEIR and answers depend, in part, on decisions made by the City for use of revenue from the lease agreement and market factors.
MyersJ-3	Decision makers would determine how to implement conditions of approval, responsible parties, funding, and ensuring compliance if the Project is approved, as well as applicable regulatory agencies with oversight authority. Nonetheless, the EIR contains a Mitigation Monitoring Program in Section 8.0 that includes recommended mitigation and responsibilities, which can be amended by the City can if necessary during the approval process.
MyersJ-4	Issue areas have significance criteria in order to determine significance. Some are very quantitative, others are more subjective. As there are no significant impacts associated with the Project along Penn Street, related to traffic, noise or air quality, for example, then there would not be any environmental justice impacts.
MyersJ-5	The areas east of Colima Road are included in parcels that have been identified as accessible by the Project (see Section 2.0, Project Description). Access to these parcels could occur at any time during the project.
MyersJ-6	No specific comment is included on the Draft EIR and, therefore, no response is provided. Personal interests or benefits of any person or organization are beyond the scope of the DEIR as it does not relate to any environmental concerns or impacts.
MyersJ-7	The Colima alternative suggested by the comment has been analyzed, but was discarded because it has significantly more impacts than the proposed Project. This alternative could increase biological impacts to the wildlife corridor that utilizes the Arroyo San Miguel Trail tunnel, and it could increase recreational impacts on users of the Arroyo San Miguel Trail (on the east side of Colima Road) and other trails that use the initial portion of the Arroyo Pescadero and Arroyo San Miguel Trails for access. Increased aesthetic impacts would also occur since this alternative site would be visible from residences on the ridge along Lodosa Drive and Aurora Crest Drive on the east side of Colima Road above the golf course. In addition, production facilities located so far to the east of the field may limit the ability to drill into the west end of the reservoir, potentially reducing the feasibility or productivity of the proposed Project. Geological impacts may increase since the area could have large areas of poorly compacted soil and steep slopes could lead to stability issues.
MyersJ-8	There are significant impacts associated with the relocation of the wildlife tunnel. First, there are very few locations that are suitable for relocating the tunnel. Next, animals become habituated to the use of the tunnel over many years and generations; relocation of the tunnel would have a high mortality rate on wildlife due to road kills while a new generation of wildlife becomes habituated to a new tunnel location. Tunnel relocation was not determined to be a mitigation measure for this Project in the Draft EIR and it is beyond the scope of the analysis. Trail re-location would have similar impacts.

Shelly Myers

Comment #	Response
MyersS-1	The Applicant's objectives are set forth in the Draft EIR and include all parties who are applying to conduct the Project.
MyersS-2	The City can implement a condition on the permit that would prohibit all hydraulic fracturing activities. However, as indicated on page 2-36 of Section 2.0, Project Description, Matrix will not utilize hydraulic fracturing techniques and, therefore, the Draft EIR does not examine hydraulic fracturing. Since the

Comment #	Response
	method is not presented or analyzed in the DEIR, the Applicant would be unable to use such technique if the FEIR is approved without reference to that method.
MyersS-3	The 30.6 acres includes areas that would be disturbed during construction and would be restored as well as areas that are currently disturbed, such as roadways, both dirt and asphalt. The areas directly related to the project site within the fencing would be substantially less (about 6.9 acres).
MyersS-4	Since this revised Project moves the drilling farther away from residences and recreational areas, the impacts associated with vibration and simultaneous operations/drilling would no longer apply. With mitigation, the noise and vibration impacts are less than significant.
MyersS-5	Vibration impacts on animals are discussed in Section 4.2, Biological Resources, and found to be less than significant as vibration impacts were determined to be of short duration.
MyersS-6	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities.
MyersS-7	Noise mitigation is based on the reduction in noise levels assumed and tabulated in Section 4.5. If these noise reduction levels are not sufficient, then thicker blankets and additional mitigation would be required of the Applicant to meet or be below the given threshold.
MyersS-8	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the Project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. The impact would be less than significant. Therefore, there is no required measurement.
MyersS-9	The General Plan allowable noise levels are based on the categories defined in the General Plan. Since there is not a category for preserves, the parks designation was used. A more stringent standard may be applicable in other jurisdictions, but the City of Whittier does not have a designation for a preserve. The County of Los Angeles designations do not apply within the City of Whittier. Nonetheless, the Draft EIR recognizes the lack of proper designation and proposes a second set of threshold criteria based on increases over baseline levels. These are limited to increases of 5 dBA over the minimum 24-hour average hour, which is in the mid-40s dBA for the Preserve area. The applied criteria are more stringent than would apply to areas designated as parks, in recognition of the fact that there is no specific category for preserve land. Baseline levels were measured at six locations around the Project area.
MyersS-10	Vibration impacts on animals are discussed in Section 4.2, Biological Resources, and found to be less than significant since vibration impacts would be short in duration.
MyersS-11	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the Project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. The impact would be less than significant. Therefore, there is no required measurement.
MyersS-12	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the Project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. The impact would be less than significant. Therefore, there is no required measurement.

Comment #	Response
MyersS-13	Section 4.5, Noise and Vibration, indicates that noise levels on Penn Street would change only minimally due to traffic increases from the Project. Noise levels during construction would be temporary and would occur during the daytime hours specified by the Municipal Code for construction activities. The impact would be less than significant. Therefore, there is no required measurement.
MyersS-14	The mitigation monitoring team has not yet been selected. The process for selecting a mitigation monitoring team will occur if the Project is approved. The City would implement a mitigation monitoring plan as part of the permit issued to Matrix. Additional staff would be hired to oversee and monitor the conditions of the permit. Typically, the permit holder, which would be Matrix, funds this for duration life of the Project. Impact N-3 would be less than significant and therefore does not have any mitigation.

Grace and Yoshio Nakamura

Comment #	Response
NakamuraGY-1	Air impacts are addressed in the Draft EIR and the Project would emit levels, after mitigation, below the AQMD thresholds of significance. It will also be noted that many of the impacts referenced in the comment would have been under very different, and lesser, environmental standards than exist today, as to drilling operations, as well as general emissions and air quality throughout the entire region.
NakamuraGY-2	There is a possibility of an oil spill from a ruptured pipeline, or an over-turned truck, etc. Mitigation measures in the Draft EIR require audits, testing of automatic valves, smart-pigging of the crude oil pipeline, and other methods to reduce the risks.
NakamuraGY-3	Older oil-field practices, still in place today at many oilfields, utilized open pits for the storage of oil and minimal controls on the emissions of fugitive components from tanks, etc. The design of the Matrix facility, with mitigation, would be a substantially tighter run operation with oversight by the AQMD and the City in line with modern practices which have stricter environmental controls. However, the potential for odors and releases still exist, albeit under current, more stringent standards. Seismic events could cause releases of materials, and this is discussed in section 4.3, Safety and Risk, and could be a contributing cause to an odor event if an earthquake caused a tank failure, for example. However, as the SCAQMD defines a significant odor impacts as more than 6 odor events in a year, earthquake risk is not anticipated to produce significant odor events.
NakamuraGY-4	The contamination of groundwater reported by these programs was related to methane gas migration from wells that had been hydraulically fractured or that had very higher pressure water forced into them to “fracture” the rock, thereby enabling the oil to move better. Such methods also allow the gas to potentially move into some water aquifers as well. However, the reservoirs at Whittier do not require hydraulic fracturing and Matrix does not propose to conduct any hydraulic fracturing. Therefore, the risk to contamination of groundwater is limited to those issues discussed and analyzed within the DEIR, and not risks identified in the referenced television programs, which are entirely different than for the proposed Project.

Theresa Oliver

Comment #	Response
OliverT-1	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations and truck traffic. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov. Trucks would be transporting crude oil only during the testing and the first part of the construction phases. After that, trucks would not be utilized for transporting the crude oil. Sections 4.3.5 provides an analysis of the proposed Project's safety risk impacts related to transportation trucks and mitigation measures proposed to reduce those impacts.
OliverT-2	The Project would have an effect on the Preserve. The Draft EIR clearly states that wildlife would be affected by the Project. However, impacts to biological resources including the wildlife mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation. Sections 4.5.3 and 4.6.4 provide analyses of the proposed Project's noise and aesthetic impacts and mitigation measures proposed to reduce those impacts.
OliverT-3	Appendix H addresses socioeconomic issues, including housing values.

pamandcats@aol.com

Comment #	Response
Pamandcats-1	Comment in opposition to the proposed Project is acknowledged. No specific comment to the environmental issues has been made, so no further response is provided.

Joe Papaian

Comment #	Response
PapaianJ-1	Comment in opposition to the proposed Project is acknowledged. No specific comment to the environmental issues has been made, so no further response is provided.

Jack Perez

Comment #	Response
PerezJ-1	Comment in opposition to the proposed Project is acknowledged. No specific comment to the environmental issues has been made, so no further response is provided.
PerezJ-2	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant as per the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, as per the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov
PerezJ-3	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The DEIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes a number of measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc. Sections 4.1.4 and 4.5.3 provide analyses of the proposed Project's air quality and noise impacts and mitigation measures proposed to reduce those impacts.

Comment #	Response
PerezJ-4	Appendix H, Socioeconomics provides an analysis of property values in relation to the proposed Project.

George Poochigian

Comment #	Response
PoochigianG-1	The SCAQMD thresholds would be exceeded during the construction phase and for the emissions of GHG gasses. Emissions during operations could be mitigated to less than the thresholds by obtaining offsets, utilizing tier 4 drilling engines or using electric drilling rigs.
PoochigianG-2	GHG emissions are estimate to produce significant and unavoidable impacts as the means for reducing these emissions cannot be definitively defined at this point. It is possible that the Applicant would be able to reduce the GHG emissions to below the thresholds by only onsite methods. However, as the final design and equipment selection has not been completed at this time, most likely offsite reductions would be required. Matrix has indicated that they may be able to obtain offsite GHG emission purchasing agreement that would allow then to purchase offsets.
PoochigianG-3	Section 4.6, Aesthetics and Visual Resources, discusses aesthetics and includes several photo simulations of the Project appearance from various locations. The drilling rig would be the most visible Project component; the rig would be in operation for 3 months during testing, for 5 years during development drilling, and periodically for 3 months per year thereafter. Most other equipment would not be visible from residences. However, the drilling rig and facilities would be visible from trails within the Preserve and from some areas through vegetation. The flare would be enclosed so no open flame would be visible. During normal operations, the flare would not burn. Visual impacts are determined to be significant and unavoidable in the Draft EIR.
PoochigianG-4	Impacts to water quality from a spill are defined as significant and unavoidable impacts in the Draft EIR.
PoochigianG-5	Land use compatibility is discussed in the Section 4.11. The City's General Plan allows for oil and gas drilling and production to occur within the Open space land use zones.
PoochigianG-6	Oil drilling can produce unpleasant odors if appropriate mitigation measures are not implemented. Drilling at the Baldwin Hills Oil Field created offsite odors that generated several mitigation measures through a special Community Services District. Lessons learned from that experience are included in mitigation measures, which require ambient air monitoring and engineering controls, such as systems to route odors to flares and monitor tank relief valves. The SCAQMD considers a facility to create a "nuisance" and therefore be a significant impact, if it generates more than six odor events per year. With mitigation, as proposed, the facility would produces less than six events per year and be less than significant.

Comment #	Response
PoochigianG-7	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov. Other materials used as part of the operations, while toxic, would not produce offsite impacts to area residences or the Habitat and present mostly an employee OSHA concern.
PoochigianG-8	The Draft EIR biologists agree with the comment that the Project would be disruptive on the area's sensitive wildlife. The Draft EIR clearly states that wildlife would be affected by the Project. However, impacts to biological resources including the wildlife mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation.
PoochigianG-9	The Draft EIR biologists agree with the comment that the Project would be disruptive on the area's sensitive habitat including riparian habitat. The Draft EIR clearly states (impact BIO.2) that riparian habitat would be affected by the Project. However, impacts to riparian habitat mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-2), which includes habitat replacement and acquiring the appropriate agency permits and approvals.
PoochigianG-10	The Project would be disruptive on the area's wildlife movement corridors. The Draft EIR clearly states (impact BIO.4) that wildlife movement would be affected by the Project. However, impacts to wildlife corridors mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, BIO-2, and BIO-4) which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program.
PoochigianG-11	The Draft EIR analysis considers different state and federal regulations concerning sensitive species, wetland protection, endangered species, critical habitat, riparian habitat protection, and sensitive habitat protection, which include tree protection ordinances and regulations and are discussed throughout the different impact discussions.
PoochigianG-12	Seismically induced ground shaking has been addressed in impact GR.1.
PoochigianG-13	The intent of the comment is unclear.

Comment #	Response
PoochigianG-14	Pipelines are required to have cathodic protection to prevent corrosion. In addition, a leak detection system is required to ensure that leaks are detected promptly and avoid significant impacts.
PoochigianG-15	Noise levels would increase in the area, but, with mitigation, the noise levels would increase less than the thresholds defining significance. These thresholds are 3-5 dBA.
PoochigianG-16	Glare is discussed in Section 4.6. Mitigation is included to shield lighting and to monitor light spillover to ensure lighting does not increase illumination in the Preserve areas outside of the pad areas and to ensure that glare does not impact residences.
PoochigianG-17	Traffic levels would increase, but, with mitigation, traffic impacts would be below the threshold values. Directing traffic away from congested areas, such as along Mar Vista Street, and through less congested areas, such as along Penn Street, would reduce traffic impacts.
PoochigianG-18	Construction could have impacts to neighborhoods during pipeline construction in the areas of noise and air quality. However, generally, construction related impacts are less than significant if the construction occurs during specified hours of the day and weekends. The County of Los Angeles has specific noise standards for construction and these are addressed in the noise section for portions of the pipeline along Colima Road that would be constructed within the County. Construction impacts associated with pipeline construction would be short term at any one location.
PoochigianG-19	Increased surface water runoff and associated flooding and water quality impacts have been addressed in impacts WR.1, WR.2, and WR.3. Mitigation measures WR-3a through WR-3e in Section 4.8 Hydrology and Water Resources address water quality issues resulting from run-off and reduce the impacts to less than significant with mitigation.
PoochigianG-20	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to cultural resources accidentally discovered.
PoochigianG-21	The Applicant shall comply with all applicable regulations, including those related to the preservation of cultural and paleontological resources. Section 4.9, Cultural Resources and Archeology, discusses the mitigation measures designed to reduce potential impacts to cultural resources accidentally discovered.
PoochigianG-22	Potential releases of wastewater to surface waters and/or the ocean have been addressed in impacts WAS.1 and WAS.2. In order to ensure adequate capacity, mitigation measure WAS-1 requires evaluation of the existing sewer line system prior to any connections, as well as a 7-day capacity performance test.
PoochigianG-23	Wildfire risk is addressed in Section 4.12, Fire Protection and Emergency Response. Mitigation measures are included to reduce the risks of starting a wildfire from the facilities, including setbacks from brush and firefighting equipment and training.

Laura Prelesnik

Comment #	Response
PrelesnikL-1	Generally, noise monitoring is performed in areas where modeling of baseline noise levels is not possible, such as within the Preserve or in residential areas. Baseline and project noise levels along roadways can be accessed through the use of FHWA models, which can determine the noise levels changes due to an increase in roadway traffic due to the project. Significance criteria are based on

Comment #	Response
	changes to noise levels along the roadway and the models provide relatively accurate assessments of this change.
PrelesnikL-2	Penn Street is not located in Los Angeles County and the County noise standards are not applicable to traffic noise. In general, most areas near roadways, particularly in Los Angeles, experience noise levels that exceed area Municipal Code standards for noise. According to the Los Angeles County Code, noise from vehicles are exempt from the noise standards for "all legal vehicles of transportation operating in a legal manner in accordance with local, state and federal vehicle-noise regulations".
PrelesnikL-3	Spill response is addressed in Section 4.8, Hydrology, mitigation measure WR-3e, which states that the Applicant shall prepare an "approved response manual and Oil Spill Contingency Plan shall be implemented to outline response actions in the event of a spill". This would include site specific actions to be taken. Risk profiles are based on stationary equipment risks. Risks associated with truck transportation of crude oil would be primarily an environmental spill impact as discussed in Section 4.3, Safety, Risk of Upset, and Hazardous Materials.
PrelesnikL-4	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The distances that vehicles would travel to access the site would be dependent on the origin of the trip. For vehicles approaching the site from the west, the Landfill Road could be a shorter route.
PrelesnikL-5	The traffic counts were conducted along Penn and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR. However, even with the additional College traffic, which mostly enters and exits the College onto Painter Avenue, not Penn, traffic levels of service would be better than those experienced along Mar Vista Street, where traffic backs up from Colima past Catalina Avenue on a daily basis. Mitigation measure T-1f requires longer term traffic counts in order to better assess the potential conflicts with events.
PrelesnikL-6	The mitigation measure T-1f, number 7, is meant to address "operational" traffic levels, which should remain below historical levels. Operational truck traffic levels would number from two to six trucks per day. The mitigation has been modified to make this clear. Construction traffic would be temporary, yet still would not cause Penn Street levels of service to become unacceptable (note that the construction traffic is still less than that experienced during the Community Church project). No trees would be removed and parking would not be affected along Penn Street. Penn Street would only be utilized for through traffic from and to the Landfill. There would be some impacts to street congestion, but Section 4.7, Transportation and Circulation, determined that the levels of congestion would

Comment #	Response
	be below the significance criteria and that the level of service would be acceptable.
PrelesnikL-7	Truck traffic levels, both during construction and operations, would be below historical levels that have visited the Landfill along Penn Street (up to 250+ trucks per day). Construction impacts would be temporary and operational truck levels would be minimal, thereby not requiring monitoring of air quality.
PrelesnikL-8	The 396 truck trips are actually a passenger car equivalent (PCE) and include automobiles. The traffic analysis report utilized PCE to account for the greater impact on traffic flow that trucks have over automobiles. The actual numbers of trucks along each route during each phase has been added to Table 2-13 in the Final EIR and would number 86 during the construction phase if soils cannot be deposited at the Landfill. Appendix H, Socioeconomics, provides an analysis of the proposed Project's impact on property values.

Public Hearing

Comment #	Response
PHWilliamsonN-1	Comment in opposition to the proposed Project is acknowledged. No specific comment to the environmental issues has been made, so no further response is provided.
PHWilliamsonN-2	As indicated on page 2-36 of Section 2.0, Project Description, Matrix will not utilize hydraulic fracturing techniques and, therefore, the Draft EIR does not examine hydraulic fracturing.
PHJonesK-1	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about 2 trucks per day, ranging up to a peak of six trucks per day. Since estimated traffic levels are currently acceptable, this would not generate a significant impact, even with existing Landfill trash truck traffic. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A.

Comment #	Response
	The Draft EIR determined that safety issues may occur on Penn Street if other events also occurred during the construction phase. Mitigation measure T-1f includes several measures that would improve safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, and coordination with Whittier College for parking.
PHFattahiJ-1	Comment in opposition to the proposed Project is acknowledged. The comment refers to fracking techniques, which will not be used in the project.
PHFattahiJ-2	Potential degradation of groundwater quality has been addressed in impact WR.4. Also, the comment refers to the purchase of the property for open space. Proposition A requires replacement land be provided for land that is not used for Open Space.
PHFattahiA-1	No specific comment on the Draft EIR is included and, therefore, no response is provided. The format of the meeting is standard procedure, which provides time for public comment, but not a discussion format.
PHMathersS-1	No specific comment on the Draft EIR is included and, therefore, no response is provided.
PHKennedyL-1	Comment in opposition to the proposed Project is acknowledged. Mitigation measures designed to reduce potential negative impacts are identified and discussed in the individual sections within the EIR.
PHCasadoD-1	There is no specific comment of the Draft EIR. However, traffic increases on Penn Street will be only temporary and are unlikely to affect property values. In addition, Landfill trucks currently traverse Penn Street and the proposed traffic would not be significantly different from what Penn Street experiences on a day to day basis. Impacts to home values are discussed in Socioeconomic section of the DEIR, Appendix H.
PHPrelesnikL-1	Generally, noise monitoring is performed in areas where modeling of baseline noise levels is not possible, such as within the Preserve or in residential areas. Baseline and project noise levels along roadways can be accessed through the use of FHWA models, which can determine the noise levels changes due to an increase in roadway traffic due to the project. Significance criteria for roadways are based on changes to noise levels along the roadway and the models provide relatively accurate assessments of this change based on traffic flow.
PHPrelesnikL-2	The largest number of truck trips along Penn Street would occur during the construction phase of the Project, which would be temporary. The mitigation measure is directed at the operational phase of the project, where truck trips would be two to six truck trips per day. In addition, the 396 number is a passenger car equivalent, not actual truck trips. A portion of the 396 PCE is automobiles. The maximum number of truck trips that would travel along Penn Street and the North Access Road has been detailed in the Section 2.0, Project Description, Table 2-13. Truck trips along Penn Street would not produce significant impacts.
PHPrelesnikL-3	Mitigation measure T-1f requires that the hours of truck traffic on Penn Street could be limited to the Landfill operating hours to reduce potential conflicts with evening hour activities at Penn Park or Whittier College. The Draft EIR limits truck traffic on the North Access Road to daylight hours only.
PHPrelesnikL-4	The Draft EIR states in Section 4.3, Safety, Risk of Upset, and Hazardous Materials, that “A spill of crude oil would produce environmental impacts if the spill drained into culverts or drainage areas that lead to creeks of other sensitive areas. Spills of crude oil would be odiferous, but generally would not present a serious health impact to area residences. There is a possibility that the spilled

Comment #	Response
	crude oil could ignite and burn, similar to the possibility that the truck diesel fuel could spill, ignite, and burn. However, the crude oil vapors would not collect to the extent that they could produce a flammable cloud and subsequent explosion, unlike spilled gasoline, for example." Risks to residences would be less than significant. Risk profiles are produced for stationary facilities that process high pressure gas and could introduce risks to residences.
PHPrelesnikL-5	The North Access Road is proposed due to the currently impacted traffic conditions along Mar Vista Street, which current operates at a level of service of F, whereas Penn Street operates at a level of service of A, a substantial difference. The decision makers can elect to override the significant impacts to Mar Vista Street during construction if they consider the North Access Road, or the Loop Road, to be less desirable, and adopt the required statement of overriding considerations. Note that after construction, trucks along the North Access Road and Penn Street would average two to six per day. The distances that vehicles would travel to access the site would be dependent on the origin of the trip. For vehicles approaching the site from the west, the Landfill Road could be a shorter route.
PHPrelesnikL-6	The traffic counts were conducted along Penn Street and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained directly from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR.
PHPrelesnikL-7	The largest number of truck trips along Penn Street would occur during the construction phase of the project, which would be temporary. The mitigation measure is directed at the operational phase of the project, where truck trips would be two to six truck trips per day. In addition, the 396 number is a passenger car equivalent, not actual truck trips. A portion of the 396 PCE is automobiles. The maximum number of truck trips that would travel along Penn Street and the North Access Road has been detailed in the Section 2.0, Project Description, Table 2-13. Analysis was conducted on the air toxic emissions from trucks along Penn Street and the health risks were found to be less than 10 in a million. By contrast, the South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area is diesel trucks on area freeways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from freeway trucks, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov. The increase in truck trips would not produce a significant impact.
PHPrelesnikL-8	There are currently no plans associated with this Project to widen or modify Penn Street in any way, including no plans to remove trees. These changes are not necessary for any accommodation of the oil truck traffic and future changes unrelated to the project are beyond the scope of the DEIR.
PHBorbonM-1	Comment in opposition to the proposed Project is acknowledged. No other specific comment is made on environmental issues in the DEIR, so no response is provided.
PHBorbonM-2	The pad area, where crude oil processing, storage and shipping; gas processing and drilling, would take place, would encompass 6.9 acres. Additional areas, as indicated in the Project description, would be required for roads, fuel modification and fire access. Also, additional areas would be temporarily

Comment #	Response
	disturbed and then re-vegetated.
PHBorbonM-3	The Draft EIR indicates that AQMD thresholds could be exceeded during the construction phase of the Project. These impacts would be regional in nature and temporary and associated with construction activities during the project grading and pipeline construction period only. Impacts would be less than significant during construction for localized impacts.
PHBorbonM-4	As the drilling rig is 125 feet tall, landscaping and berms would not be able to completely hide it. As it is located within a Preserve, near residences, it being visible creates a significant and unavoidable impact, as described in the Draft EIR. However, this impact may be balanced against other impacts and benefits of the project, depending upon the conclusions the approving agency may be able to make in evaluating the whole of the DEIR and the project.
PHBorbonM-5	If a spill were to occur, the Applicant would be required to conduct cleanup of the area according to standards associated with applicable State and Federal regulations. Procedures to be followed would be developed in advance, according to regulatory requirements. Permanent impacts to water quality (see section 4.8, Hydrology) would not occur, however, the temporary impacts would be considered significant and unavoidable.
PHBorbonM-6	As stated in Section 4.11, Land Use and Policy Consistency Analysis, potential air, noise and visual impacts would be mitigated in accordance with mitigation measures N-1a through N-1c, N-2a through N-2c, N-4, AE-1a and AE-1b, and AQ-1a through AQ-1d, AQ-2a and AQ-2b, AQ-3a through AQ-3e, AQ-4 and AQ-5, as identified in Section 4.5 Noise and Vibration, Section 4.6 Aesthetics and Visual Resources, and Section 4.1 Air Quality. Note that the Draft EIR policy consistency analysis is preliminary. The decision makers will determine whether additional, as yet unidentified, mitigation measures can be implemented to further reduce potential impacts. All of the referenced impacts are reduced to a level that is insignificant, as specified in this response.
PHBorbonM-7	As stated in Section 4.14 Recreation, Mitigation Measures AE-1a and AE-1b are designed to reduce to the greatest possible extent the significant and unavoidable impacts to recreation and public view sheds. The decision makers will determine whether additional, as yet unidentified, mitigation measures can be implemented to further reduce potential impacts. Identified impacts may be balanced against other impacts and benefits of the project, depending upon the conclusions the approving agency may be able to make in evaluating the whole of the DEIR and the project.
PHBorbonM-8	A release and subsequent explosion at the facility could occur. However, it is located far enough away from residences that the impacts to residences would not be serious. Note, for example, that the San Bruno explosion and resulting fire, which was of a much greater intensity and magnitude than could be realized with this project, homes were impacted only up to 600 feet from the release point. Homes are located, at the closest point, more than 1,100 feet from the proposed Project gas plant facilities. Since no impacts to residences would occur, the impacts would be less than significant.
PHBorbonM-9	The Draft EIR clearly states that wildlife would be affected by the Project. The impacts to wildlife are not downplayed simply because the final conclusion is that the impacts will be less than significant. Impacts to biological resources, including the wildlife mentioned in this comment, would be reduced to less than significant with the implementation of proposed mitigation and is based on the evidence presented in this section of the DEIR.

Comment #	Response
PHBorbonM-10	Pushing trees over with large pieces of construction machinery would result in impacts to wildlife. However, impacts to wildlife mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, BIO-2, and BIO-4), which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program.
PHBorbonM-11	Mitigation measures provided in Sections 4.3 Safety, Risk of Upset and Hazardous Materials, and Section 4.4 Geological Resources, are designed to reduce the potential impacts of the proposed Project to less than significant with mitigation where possible. Section 4.8, Hydrology and Water Resources, impact WR.4 (second paragraph), discusses potential oil spills as a result of geologic hazards and concludes that impacts are significant and unavoidable. As such, the City would have to approve a statement of overriding considerations in order to find that these impacts can be overcome by other, superseding interests.
PHBorbonM-12	Based on the analysis provided in Section 4.16 Environmental Justice, no significant impacts were identified. A specific comment on this analysis was not provided, therefore, no further response is provided.
PHBorbonM-13	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two trucks per day, ranging up to six trucks per day during drilling. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc. The above impacts to Penn Street are less than significant with mitigation measures.

Comment #	Response
PHMcKeeR-1	Comment in opposition of the proposed Project is acknowledged. No specific comment to the DEIR is made, so no response is provided.
PHMcKeeR-2	The Draft EIR is a document which presents the results of the best analysis tools that are available today. The noise assessment, for example, utilizes a high end noise modeling computer program that accounts for terrain effects, noise reflections off of surfaces, octave band absorption, etc. Air quality utilizes the latest modeling programs to assess impacts. However, even with the latest technology and programs, there are inherent uncertainties in the analysis, as there are with all engineering assessments. Therefore, mitigation measures have also been included requiring audits and in-field monitoring to ensure that impacts are less than significant as forecasted. Moreover, Section 4.7.4.7 provides an analysis of the proposed Project's traffic impacts and mitigation measures proposed to reduce those impacts.
PHMcKeeR-3	The AQMD has principal authority over the permits regarding air quality violations. However, City monitors will also be available for complaints and concerns during implementation of the project.
PHMcKeeR-4	During the construction period, there could be a high volume of trucks passing through the North Access Road. If soil export trucks are not allowed to deposit soils at the Landfill, truck trips will average 86 round trips per day. Table 2-13, in Section 2 Project Description, has been updated to include information on the peak number of vehicles using specific routes during multiple, simultaneous activities. At this rate, a truck would pass by once every approximately 4 minutes. If soils can be deposited at the Landfill, then the soil export trucks would not utilize Penn Street, and there would be an average of 36 round trip trucks per day (at a different phase of the construction than soil export), or one every about 9 minutes. Note this is only during the construction phase, which would be temporary. After construction is completed, operations and drilling would generate an average of six round trip trucks per day, or about 1 per hour, or about 2 per day when operations and not drilling. [Need to address claim in comment that there will be cut-through traffic through neighborhood that would not normally see that traffic.]
PHMcKeeR-5	According to discussions with the City Public Works Department, the streets are rated for substantially more than 6,000 lbs. The 3 ton weight limit is allowed by the State requirement (Vehicle Code Section 35701) and the City Municipal Code for residential areas and is allowed to be exceeded if the destination is located within the residential area or only accessible by passing through a residential area.
PHMcKeeR-6	Mitigation measure BIO-4c restricts all haul trucks to daylight hours. Construction activities would be limited to the hours prescribed in the noise code. Drilling noise would be limited at night through the use of a quiet mode of operations, as per mitigation measures in section 4.5, Noise and Vibration.
PHMcKeeR-7	All soil would be exported through the North Access Road and, if not deposited at the Landfill, via Penn Street to other destinations. The sale of such soil is beyond the scope of the DEIR. As to traffic impacts, see response to comment PHMcKeeR-4 through 6.

Comment #	Response
PHWilliamsonA-1	As indicated on page 2-36 of Section 2.0, Project Description, Matrix will not utilize hydraulic fracturing techniques and, therefore, the Draft EIR does not examine hydraulic fracturing.
PHFischerP-1	Mitigation measures GR-1a and GR-1c have been edited mandating that peak vertical ground accelerations be designed for during the final design process.
PHFischerF-1	Comment in opposition of proposed Project is acknowledged. The City of Whittier allows for oil and gas production activities to occur within the open space zone district.
PHFischerF-2	Street construction is a common occurrence in urban areas. Traffic control plans are required by Public Works to mitigate traffic and control the Project impacts.
PHFischerF-3	The project would produce dust and pollution, but mitigation measures in section 4.1, Air Quality, would reduce impacts to less than significant (except for construction related emissions of NOx during grading and pipeline construction).
PHFischerF-4	The San Bruno disaster is discussed in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. Pipelines are the safest mode of oil and gas transportation on a per mile basis. The DEIR discusses the risks and mitigation measures to reduce those risks to levels that are less than significant.
PHNakamuraY-1	Air quality impacts are discussed in Section 4.1. Impacts are identified associated with construction and operational emissions, and related to odors and health risk. Many of these have been required to be mitigated through the use of clean technologies or limits on project operations which would reduce many of them to less than significant.
PHNakamuraY-2	Traffic along Mar Vista Street area is currently very congested; hence the decision to direct traffic through less impacted areas along Penn Street. Along that route, mitigation measures have been imposed which would address concerns with safety and emissions and reduce the impacts to less than significant. Impacts would primarily occur at the Catalina Avenue and Mar Vista intersection and not at Ocean View Avenue.
PHNakamuraY-3	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million, which is substantially greater than what the Project would contribute. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov
PHNakamuraY-4	Comment in opposition to the proposed Project is acknowledged. Mitigation Measures designed to reduce potential negative impacts are identified and discussed in the individual sections within the EIR. No specific comment to the DEIR is made, so no response is provided.
PHNakamuraG-1	Flaring has been included in the air quality assessment and contributes to the un-mitigated emissions levels exceeding the SCAQMD thresholds. Mitigation measures in Section 4.1 require the use of a cleaner flare meeting the best available control technology (BACT) requirements, which is likely more

Comment #	Response
	restrictive than flares used in past oil drilling in the hills, referenced in the comment.
PHNakamuraG-2	Construction produces the highest level of traffic. The Project proposed to direct construction traffic primarily through Penn Street, which is currently not congested and is not projected to become congested due to the additional project truck traffic. As to the time of day that truck traffic will be permitted, see response to comment PHNakamuraG-2. Traffic impacts along Catalina Avenue are determined to be less than significant except at the intersection with Mar Vista.
PHNakamuraG-3	Mitigation measures in the Draft EIR limit traffic to daytime only, require the maintenance and inspection of roadways to reduce noise impacts, and control vehicle speeds. City monitors would inspect and ensure that the mitigation measures are followed. Section 4.5.3 provides an analysis of the proposed Project's noise impacts and mitigation measures proposed to reduce those impacts.
PHNakamuraG-4	The contamination of groundwater reported by these programs was related to methane gas migration from wells that had been hydraulically fractured, or that had very higher pressure water forced into them to "fracture" the rock. Fracturing allows oil to move more freely and it also allows the gas to potentially move into some water aquifers as well. However, as indicated on page 2-36 of Section 2.0, Project Description, Matrix will not utilize hydraulic fracturing techniques and, therefore, the Draft EIR does not examine hydraulic fracturing.
PHNakamuraG-5	Recent epidemiological studies associated with Baldwin Hills Oil Field have demonstrated that there is no increase in cancers or health attributable to the oil operations. Sections 4.1.4, 4.8.4 provide analyses of the proposed Project's air quality and hydrology impacts and mitigation measures proposed to reduce those impacts. The proposed Project does not included fracking.
PHNakamuraG-6	The comment's reference to a trust fund is outside of the scope of the Draft EIR and, therefore, no response is provided. Note that the lease requires a bond for closure/clean up.
PHNakamuraG-7	Drilling would be 24 hours per day and the gas and oil plants would operate 24 hours per day. Section 4.5.3 provides analysis of the proposed Project's noise impacts and mitigation measures proposed to reduce those impacts.
PHNakamuraG-8	GHG emissions are identified as a potentially significant and unavoidable impact in the Draft EIR. The City must adopt a statement of overriding considerations if the project is to move forward despite this impact. The Applicant could obtain emissions offsets to reduce the GHG emissions to less than significant if the GHG emissions levels are determined to be above the thresholds during the operational phase of the project.
PHNakamuraG-9	The reservoirs at Whittier would not require hydraulic fracturing and Matrix does not propose to conduct any hydraulic fracturing, which could contaminate ground water.
PHYoshiharaP-1	Noise levels were estimated at the school from the Project and the noise levels would be less than the thresholds. When school is in session, background noise levels would be greater at the school and therefore, the impacts from the Project would be even less.

Comment #	Response
PHYoshiharaP-2	Section 2, Table 2-4, lists the distance from various receptors to the Project components. The closest component to the north-east corner of the school playground would be 1,010 feet and 1,290 feet from the school buildings. This project component would be the crude oil processing area.
PHYoshiharaP-3	Air would be monitored during the drilling period as a mitigation measure relating to odors. This would be a continuous process that would monitor the air near the site for H2S and for hydrocarbons.
PHYoshiharaP-4	Although there is to be expected some level of disturbance of normal wildlife behavior due to the increased human presence and drilling activities in the Project area, coyote, deer, mountain lion, and other wildlife species are not expected to increase in abundance nor substantially change their behavior so as to avoid one disturbance (drilling and operations) by moving into closer contact with other disturbances (i.e., traffic and even increased human presence). The change in wildlife behavior along the urban edge is expected to be negligible.
PHYoshiharaP-5	A health risk assessment was conducted for the Project and mitigation was added to the diesel engine used for drilling to ensure that toxic emissions would remain below the SCAQMD thresholds. Sections 4.1.4 and 4.8.4 provide analyses of the proposed Project's air quality and hydrology impacts and mitigation measures proposed to reduce those impacts.
PHYoshiharaP-6	Oil drilling can produce unpleasant odors if appropriate mitigation measures are not implemented. Drilling at the Baldwin Hills Oil Field created offsite odors that generated several mitigation measures through a special Community Services District. Lessons learned from that experience are included in the Draft EIR as mitigation measures, which require ambient air monitoring and engineering controls, such as systems to route odors to flares and monitor tank relief valves. The SCAQMD considers a facility to create a "nuisance" and therefore be a significant impact, if it generates more than six odor events per year. With mitigation, the facility would produces less than six events per year and be less than significant. However, odor events could still occur.
PHYoshiharaP-7	The health risk assessment utilized conservative values for toxicity that take into account the increased sensitivity of older and younger people. For normal operations, the analysis indicates there would not be any concern. However, in an upset situation, impacts related to odors could produce impacts for sensitive individuals.
PHYoshiharaP-8	Increased traffic levels would primarily occur along Catalina Avenue and Mar Vista Street. No traffic would utilize Ocean View Avenue. Some traffic would pass near the school along Catalina Avenue within the Preserve on the other side of the fence. However, no significant impacts were identified.
PHYoshiharaP-9	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, details several scenarios that could occur at the facilities and their impacts on nearby receptors. A well drilling explosion associated with drilling at the Central Well Site under the proposed Project could impact the school and cause injuries. This was identified as a significant and unavoidable impact that could not be mitigated. The Central Consolidated Site alternative associated with moving the drilling operations farther away from the school and residences would eliminate this impact. The liability of accidents is outside the scope of an EIR.
PHYoshiharaP-10	A fire at the site could spread to the Preserve foliage and cause a wildfire, which could directly impact the school or thermal radiation could impact the school. Section 4.12, Fire Protection and Emergency Response, and Section 4.3, Safety, Risk of Upset, and Hazardous Materials, identify this as a potential impact of the Project. Mitigation measures require distance between equipment and brush and trees and fire-fighting resources at the facility. In addition, the alternatives

Comment #	Response
	would move the facilities farther from the school, thereby reducing fire impacts to the school to less than significant.
PHYoshiharaP-11	If a pipeline breaks due to an earthquake or any other reason, impacts could be caused by releases of flammable gas and a subsequent explosion or fire, or, if the pipe contains crude oil, the spill could cause impacts to the environment. Mitigation measures in Section 4.3, Safety, Risk of Upset, and Hazardous Materials, and Section 4.12, Fire Protection and Emergency Response, define several maintenance issues and require detection and response to reduce the risks of fires, wildfires, and explosions.
PHYoshiharaP-12	Section 2.3.2.4, Gas and Crude Pipeline Construction, identifies the oil pipeline as 8 inches in diameter and approximately 2.8 miles long and the gas pipeline as 6 inches in diameter and 1.8 miles long. The oil and gas pipelines would originate at the Central Processing Site and connect to new pipelines along Colima Road. The oil and gas pipelines are proposed to follow in the same corridor. The oil connection line and the natural gas sales line would be constructed at the same time in the same trench; they would follow the same route and the natural gas line would tie in to the Southern California Gas Company line at the intersection of Colima Road and Lambert Road. The connecting oil pipeline would continue to the Crimson Pipeline connection at the intersection of Leffingwell Road and La Mirada Boulevard.
PHYoshiharaP-13	The proposed Project would develop the oil and gas resources until they are depleted and developing them is no longer economically viable or until the price of crude oil decreases to a level where production from the field is no longer economically viable. Currently, the amount of crude oil that could be produced from the field is unknown and future crude prices are difficult to assess. At a minimum, the proposed Project could operate for 25 years, which is the lease term approved by the City of Whittier.
PHYoshiharaP-14	Liability insurance is not within the scope of an EIR. However, the City of Whittier could require liability insurance from the Applicant as a condition of approval of the Conditional Use Permit necessary for this Project.
PHGarciaA-1	Impacts related to air quality may be exceeded during construction. Air emissions during operations could be mitigated to below the SCAQMD thresholds for both regional and localized impacts. GHG emissions could also exceed the SCAQMD thresholds during operations.
PHGarciaA-2	Regarding protection of groundwater quality, see mitigation measures WR-3a through WR-3e, WR-4a, WR-4b, and WR-4c, as well as water quality protective measures to be implemented, as discussed in Section 4.8.4.2, Potential Water Quality Impacts.
PHGarciaA-3	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.
PHMunozL-1	Regarding Proposition A, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for

Comment #	Response
	the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.
PHMunozL-2	Putting the plan up for a vote is not a relevant comment on the Draft EIR and is beyond the scope of environmental review. The Project would result in disruption to wildlife and wildlife movement. The Draft EIR clearly states (impact BIO.4) that wildlife movement would be affected by the Project. However, impacts to wildlife corridors mentioned in this comment would be reduced to less than significant with the implementation of proposed mitigation (mitigation measure BIO-1, BIO-2, and BIO-4), which includes habitat replacement, noise reduction measures, lighting restrictions, speed limits, seasonal constraints, biological monitoring of compliance, and an environmental training program.
PHMunozL-3	Noise impacts from the drilling and operational activities would be significant without mitigation, but with mitigation, including walls, noise barriers and enclosures, noise levels would be substantially reduced to below the thresholds. This does not mean that the Project could not be heard, but that it would not produce noise levels above the prescribed thresholds. Note that the thresholds are compared to the lowest baseline noise level; therefore, during the daytime, noise from the Project would be even harder to hear as baseline noise levels in the day are higher. Section 4.5.3 provides an analysis of the proposed Project's noise and vibrations impacts and mitigation measures proposed to reduce those impacts.
PHMunozL-4	A release and subsequent explosion at the facility could occur. However, it is located far enough away from residences that the impacts to residences would not be serious. Note, for example, that the San Bruno explosion and resulting fire, which was of a much greater intensity and magnitude than could be realized with this project, impacted homes up to 600 feet from the release point. Homes are located, at the closest point, more than 1,100 feet from the proposed Project facilities. As no impacts to residences would occur, the impacts would be less than significant.
PHMunozL-5	The school is located more than 1,000 feet from the oil processing plant and more than 1,300 feet from the drilling and gas plant operations. Modeling and historical events (such as San Bruno) indicate that a release of materials would not cause direct, acute impacts at the school or residences.
PHMunozL-6	Regarding protection of groundwater quality, see mitigations WR-3a through WR-3e, WR-4a, WR-4b, and WR-4c, as well as water quality protective measures to be implemented, as discussed in Section 4.8.4.2, Potential Water Quality Impacts.
PHMunozL-7	Comments on the City's insurance liability are not within the scope of the Draft EIR and, therefore, no response is provided.
PHMunozL-8	Mitigation measures include requiring speed limits for trucks along Catalina Avenue. Trucks would only utilize Catalina Avenue area during the testing and initial construction phases. The comment's reference to children being afraid to go outside for fear of being hit by diesel trucks is not a valid environmental concern to be addressed by the DEIR.

Comment #	Response
PHMunozL-9	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.
PHMunozL-10	Mitigation Measures identified in Section 4.6 Aesthetics and Visual Resources are designed to reduce to the greatest possible extent the impacts to public view sheds. The decision makers will determine whether additional, as yet unidentified, mitigation measures can be implemented to further reduce potential impacts.
PHMunozL-11	No specific comment on the Draft EIR is included and, therefore, no response is provided. Comment in opposition to the proposed Project is acknowledged.
PHDonovanT-1	Impacts related to air quality may be exceeded during construction, but are temporary and would occur only during the grading and pipeline construction phases. Air emissions during operations could be mitigated to below the SCAQMD thresholds for both regional and localized impacts. GHG emissions could also exceed the SCAQMD thresholds during operations. This impact would require a statement of overriding considerations by the City.
PHDonovanT-2	Regarding protection of groundwater quality, see mitigations WR-3a through WR-3e, WR-4a, WR-4b, and WR-4c, as well as water quality protective measures to be implemented, as discussed in Section 4.8.4.2, Potential Water Quality Impacts.
PHDonovanT-3	A release and subsequent explosion at the facility could occur. However, it is located far enough away from residences that the impacts to residences would not be serious. Note, for example, that the San Bruno explosion and resulting fire, which was of a much greater intensity and magnitude than could be realized with this Project, impacted homes up to 600 feet from the release point. Homes are located, at the closest point, more than 1,100 feet from the proposed Project facilities. As no impacts to residences would occur, the impacts would be less than significant. Sections 4.3.4 provides an analysis of the proposed Project's safety risk from hazardous materials and mitigation measures proposed to reduce those impacts.
PHDonovanT-4	There is no proposal in the Project to remove any traffic islands. This was proposed in the traffic analysis report, but limits on the Project traffic were imposed instead. Section 4.7.4.7 provides an analysis of the proposed Project's traffic impacts and mitigation measures proposed to reduce those impacts. Mitigation to monitor roadway conditions and repair any damage has been included.
PHDonovanT-5	Regarding Proposition A, in order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The

Comment #	Response
	proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.

Frank Ramos Jr.

Comment #	Response
RamosF-1	In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City would be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is working with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. Negotiations regarding refunding Proposition A between the City of Whittier and Los Angeles County are separate and distinct from the EIR process. The proposed lease includes a provision that the City will not issue a conditional use permit until a release from protected area status is obtained from the Proposition A District.
RamosF-2	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions would be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, Air Quality, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently, baseline cancer risks at the Project site from primarily diesel exhaust from trucks on area roadways, according to the MATES studies, total 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.
RamosF-3	Comment in opposition to the proposed Project is acknowledged.

Maggie Ramos

Comment #	Response
RamosM-1	Comment in opposition to the proposed Project is acknowledged.

Sherilynn Dee Reyes

Comment #	Response
ReyesS-1	No specific comment on the Draft EIR is included and, therefore, no response is provided. Comment in opposition to the proposed Project is acknowledged.

Francine Santoianni

Comment #	Response
SantoianniF-1	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing. Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.

Monica Sena

Comment #	Response
SenaM-1	No specific comment on the Draft EIR is included and, therefore, no response is provided. Comment in opposition to the proposed Project is acknowledged.

Mr. & Mrs. William Thompson

Comment #	Response
ThompsonW-1	Section 4.7, Transportation and Circulation, discusses existing conditions on Penn Street at both Painter Avenue and Pickering Avenue. Levels of service along Penn Street east of Painter Avenue near Whittier College are at an acceptable level of service A, both the daily average and during peak hours. The Penn Street and Painter Avenue intersection also operates at level of service A. Level of service corresponds to traffic that does not back up at a stop light so that more than one signal period is needed to clear it or that the roadway is not so crowded that it impedes stable traffic flow. The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. The Draft EIR determined that, during the construction phase, there might be some potential safety issues along Penn Street if other events are ongoing.

	Mitigation measure T-1f includes several measures that would enhance safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, coordination with Whittier College for parking, etc.

Jennifer Tucker

Comment #	Response
TuckerJ-1	Comment in opposition to the proposed Project is acknowledged.

Erwin Ulbrich Jr.

Comment #	Response
UlbrichE-1	The 2006 University of Southern California User Survey is the most recent and comprehensive survey taken regarding visitor use at the Preserve and was, therefore, used in preparing the Draft EIR.
UlbrichE-2	Mitigation measures, along with DOGGR policies, require the installation of security systems to prevent unauthorized access to the site.
UlbrichE-3	The elevation estimate of the Puente Hills is based on Heathcote Geotechnical (2011). The descriptions of the adjacent creeks is based on U.S. 7.5 minute topographic quadrangles, which show these creeks as blue-line, intermittent creeks. The closest water well was based on Los Angeles County Department of Public Works records (2007). Local purveyor and private well information, such as depth to groundwater, is generally not available to the public unless it is posted with Los Angeles County Department of Public Works. Although relevant to the discussion, Whittier wells #1 and #2 of the Water Replenishment District of Southern California are not closer to the Project site than the Los Angeles County well described in the EIR. These wells are 2.5 to 3 miles south and west of the Project Site, respectively. Therefore, the additional information from the district wells has not been added to the document. The surface reservoirs are not relevant to the impact evaluation and therefore have not been discussed. Potential spills and/or leaks to surface waters and groundwater in the Project vicinity were discussed in Impacts WR.4 and WR.5. Mitigation measures were not provided for Impact WR.5 since impacts were determined to be less than significant, as discussed in the impact evaluation. As indicated in the evaluation, the injection wells would be constructed per EPA guidelines and permitted by DOGGR, with RWQCB review.
UlbrichE-4	See Mitigation Measures GR-1b and GR-1e regarding potential seismically induced well pad infrastructure and pipeline movement.
UlbrichE-5	No specific comment is included on the Draft EIR and no additional response in provided.
UlbrichE-6	Section 4.1, Air Quality, addresses only routine emissions or upset emissions that do not have the potential to produce acute impacts (such as odors). The Honolulu Terrace fire is discussed in Section 4.3, Safety, Risk of Upset, and

Comment #	Response
	Hazardous Materials. This same scenario, a kick from the well producing a sustain fire, is addressed in the risk analysis. It was found that the impacts of a similar release at the proposed site would not impact residences or the public.

Paula Vannucci

Comment #	Response
VannucciP-1	The thresholds that are utilized for noise, air quality, traffic, etc are based on Codes and Standards established by various agencies, including the City of Whittier, the SCAQMD, and others. In some areas, such as noise, the thresholds are strengthened in the Draft EIR. Some thresholds are quantitative, such as noise or risk, while others are more qualitative, such as visual and recreation. The Draft EIR identifies numerous significant impacts, but makes no decision on whether the Project should be approved. Approval or denial of the Project is the responsibility of the public through their elected representatives.
VannucciP-2	Although there is a higher percentage of low income residents along Penn Street, most likely because of the many college students. However, as there are no significant impacts identified along Penn Street with the Project traffic, there would be no environmental justice impacts. Text in the Final EIR has been modified to clarify this issue.
VannucciP-3	There currently is a paved and utilized road that runs from Painter Avenue to the east called Penn Street. Because this is an existing roadway, the additional traffic added to the roadway during operational phase would not constitute a significant impact. As the Loop Trail Road is currently used as a trail, with no current vehicles and no pavement (it is actually currently overgrown), the placement of pavement and regular vehicles on the Loop Trail Road would be a substantially greater impact to that area that the addition of the same number of vehicles on Penn Street. Residences purchased their properties along Penn Street with the knowledge that the Savage Canyon Landfill was located at the end of Penn Street and that trucks would utilize Penn Street, at a level averaging more than 60 per day with peaks up to more than 250 (over the last year). After construction, trucks along Penn Street would number from two to six truck trips per day (depending on if drilling is ongoing). Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A. Please feel free to drive along Mar Vista Street during peak hours and experience the heavily impacted traffic and congestion, which is clearly substantially greater than any that is experienced along Penn Street.
VannucciP-4	The dozens of times that MRS has traveled Penn Street and Mar Vista Street indicates that clearly the levels of traffic congestion on Mar Vista Street exceed those on Penn Street, and the traffic study confirms these experiences by defining the LOS on Mar Vista Street as an F, while Penn Street is acceptable. The intersection at the corner of Penn Street And Painter Avenue has never experienced multiple cycle wait times like the intersection at Colima and Mar Vista Street. The Penn Park is a recreational resource that is heavily used even with the trucks traveling to and from the Landfill. However, it is not a hiking

Comment #	Response
	trail through a Preserve. Penn Park is frequented by ice cream trucks and parties and is accustomed to traffic and noise; much different than the impacts that would be experienced by directing traffic through a quiet Preserve.
VannucciP-5	The traffic counts were conducted along Penn Street and Painter Avenue on the day between the end of classes and the beginning of finals. Some students would continue to come to campus thereby contributing to area traffic. However, as traffic levels could be higher during other periods associated with Whittier College, additional analysis has been conducted. Information on the number of parking spaces at Whittier College has been obtained from Whittier College, and it was assumed that this many cars would come to the College during the morning and afternoon peak hours. This traffic was added to the traffic analysis for Painter Avenue and Penn Street in the Final EIR.
VannucciP-6	Pedestrian safety has been a common concern for other Penn Street residents.
VannucciP-7	Area residents are accustomed to trucks during these periods. Trucks during the evening, after the Landfill is closed, would have a potentially greater impact.
VannucciP-8	There is open space within the College that could potentially be use for parking.
VannucciP-9	Penn Street was selected for the proposed Project because Mar Vista Street and Colima Road intersections and roadways are already heavily impacted. Mar Vista Street currently operates at a level of service of F and Colima Road operates at a level of D and F. Penn Street and the Penn Street and Painter Avenue intersection currently operates at a level of service of A.
VannucciP-10	The proposed Project is not estimated to introduce an amount of traffic that would produce an unacceptable level of service of Penn Street. The greatest volume of traffic would occur during construction, which would be temporary. Traffic levels during operations would average about two to six trucks per day, with six truck trips during drilling and operations. Since estimated traffic levels are currently acceptable, this would not generate a significant impact. Mitigation measure T-1f directs the Landfill to, in effect, reduce their truck traffic by two to six vehicles per day, creating no net increase in truck traffic along Penn Street.
VannucciP-11	The destination for the oil would depend on market conditions. Most likely in Santa Fe, where the crude oil could be unloaded into a pipeline, or to a Los Angeles area refinery.
VannucciP-12	In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. The proposed lease includes a provision that the City will not issue a conditional use permit (CUP) until a release from protected area status is obtained from the Proposition A District.
VannucciP-13	The Draft EIR identifies numerous significant impacts, but makes no decision on whether the Project should be approved. Approval or denial of the Project is the responsibility of the public through their elected representatives.

Cynthia Velazquez

Comment #	Response
VelazquezC-1	Air emissions associated with construction are tabulated in Section 4.1, Air Quality. Air emissions associated with construction could be reduced if mitigation measures AQ-1a through AQ-1d can be applied. However, since some of the mitigation measures may not be able to be applied, this impact remains significant and unavoidable. Cancer risks associated with truck traffic along Penn Street would be less than the SCAQMD significance thresholds for operations, and the construction phase of the Project requiring hauling of soils would last six months, which would not contribute to a significant lifetime cancer risk. If mitigation measure AQ-1d were applied, with the soils being deposited at the Landfill, substantially fewer trucks would utilize Penn Street during construction. During the operational phase of the Project, an average of two round trip trucks per day would utilize Penn Street or up to six average round trips during the operational drilling phase.
VelazquezC-2	Both odor and toxic emissions are discussed in Section 4.1 of the Draft EIR. Toxic emissions would be reduced by the use of diesel particulate filters and catalysts on the drilling diesel engines. Odor would be reduced by implementing measures to capture odiferous gasses that might be released during drilling. However, even with these measures, some toxic risk and odor events, although both below the thresholds established by the SCAQMD, would remain.
VelazquezC-3	Risk factors are addressed in Section 4.1, Air Quality, with impact AQ.5, and in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. These issues are communicated in the EIR process. In addition, mitigation measures FP-1b and FP-1d in Section 4.12, Fire Protection, include measures to alert residents of emergencies and to conduct emergency drills and planning.
VelazquezC-4	Public viewsheds are addressed in Section 4.6, Aesthetics and Visual Resources. Simulations are generated from several locations, including along recreational trails and viewing areas and from the Ocean View School.
VelazquezC-5	Noise levels would increase along Penn Street, as detailed in Section 4.5, Noise and Vibration. However, increases during operations would be minimal. Increases in noise during construction would be more; however, construction noise is not limited by the Whittier Municipal Code as long as the construction occurs during specified daytime hours.
VelazquezC-6	Noise and light impacts are discussed in Section 4.5, Noise and Vibration, and Section 4.6, Aesthetics and Visual Resources. Noise levels and light levels would be reduced to below the significance levels with mitigation.
VelazquezC-7	Section 2.0, Project Description, and Section 4.6, Aesthetics and Visual Resources, describe the Project and show visual simulations of the Project components. The 125-foot drilling rig would be the most visible component.
VelazquezC-8	Flooding along Penn Street would not impact truck traffic along Penn Street. If Penn Street were to close due to flooding, truck traffic might be re-routed or delayed.
VelazquezC-9	Flooding along Penn Street would not impact truck traffic along Penn Street. If Penn Street were to close due to flooding, truck traffic might be re-routed or delayed.
VelazquezC-10	Sewage use by the Project would be limited to a single bathroom used by oil and gas plant employees. This facility would be connected to the sewage line along Catalina Avenue and would not impact sewage disposal along Penn Street.
VelazquezC-11	Truck traffic is listed in Section 2.0, Project Description, Table 2-13. The highest number of trucks along Penn Street could occur if soil cannot be deposited at the Landfill, which would direct 78 trucks per day hauling soil along Penn Street, round trips.
VelazquezC-12	Truck traffic is listed in Section 2.0, Project Description, Table 2-13, by phase,

Comment #	Response
	with the duration of each phase also shown.
VelazquezC-13	Trucks would range up to the maximum allowed weight by CalTrans, or 80,000 pounds, similar in weight to a 10,000-gallon gasoline delivery truck that delivers gasoline to service stations.
VelazquezC-14	Traffic noise related to construction would not produce impacts above the thresholds on Penn Street as traffic noise associated with construction, as long as it operates within the allowed hours of operation in the Whittier Municipal Code, would be a less than significant impact. Operational truck traffic along Penn Street would minimally increase traffic noise and would therefore not require mitigation.
VelazquezC-15	According to CalTrans studies discussed in the Draft EIR Section 4.5, Noise and Vibration, truck traffic along appropriately paved streets would not produce vibration that would impact structures. Mitigation measure T-1d in Section 4.7, Traffic and Circulation, requires monitoring and repair of street damage from Project trucks.
VelazquezC-16	The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill.
VelazquezC-17	The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill. However, the Draft EIR determined that safety issues may occur on Penn Street if other events also occurred during the construction phase. Mitigation measure T-1f includes several measures that would improve safety along Penn Street, including traffic monitoring, enhanced pedestrian crosswalks and signage, and coordination with Whittier College for parking.
VelazquezC-18	The use of Penn Street would not introduce parking to Penn Street. All Project-related vehicles would park either at the proposed Project site or within the Landfill.
VelazquezC-19	As discussed in the Draft EIR Section 4.1, Safety and Risk, an accident and subsequent spillage of the crude oil transported during the testing and construction phases of the Project would produce primarily environmental impacts to the immediate area of the spillage. The DOT has regulations that require training and response actions for the transportation of hazardous materials.
VelazquezC-20	No street construction is proposed for Penn Street as part of the proposed Project.

Richard Veyna

Comment #	Response
VeynaR-1	Comment in opposition to the proposed Project is acknowledged.

Moyra Weide

Comment #	Response
WeideM-1	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is

Comment #	Response
	considered consistent with the goals and policies of the General Plan. However, the Draft EIR policy consistency analysis is preliminary. The decision makers will weigh the compatibility of the Project with the goals and policies of the General Plan in their consideration of the Project. The CEQA Guidelines require that a Lead Agency shall neither approve nor implement a Project as proposed unless the significant environmental impacts have been reduced to an acceptable level. An acceptable level is defined as eliminating, avoiding, or substantially lessening significant environmental effects to below a level of significance. If the Lead Agency approves the Project even though significant impacts identified in the Final EIR cannot be fully mitigated, the Lead Agency must state in writing the reasons for its action. In these circumstances, Findings and a Statement of Overriding Considerations must be included in the record of Project approval and mentioned in the Notice of Determination.
WeideM-2	Noise impacts are minimized through the use of mitigation measures identified in the Draft EIR.
WeideM-3	Traffic impacts are minimized through the use of mitigation measures identified in the Draft EIR and by directing traffic to areas that are not currently congested.
WeideM-4	Biological impacts are minimized through the use of mitigation measures identified in the Draft EIR.
WeideM-5	Recreational impacts are minimized through the use of mitigation measures identified in the Draft EIR and placing the Project outside of the recreational areas of the Preserve.
WeideM-6	The Project would provide a significant revenue stream to enhance and preserve areas of the Preserve that might otherwise not have the funds to continue preservation efforts.
WeideM-7	Fire safety impacts are minimized through the use of mitigation measures identified in the Draft EIR.
WeideM-8	Within Section 4.11, Land Use and Policy Consistency Analysis, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that otherwise would not occur. Without the approval of the Project and with the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site. Funding for restoration and preservation would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that allows oil and gas production activities within the open space zone district. In addition, existing oil and gas production activities ongoing within the Preserve as part of the Matrix Sycamore Canyon oil production operations are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the proposed

Comment #	Response
	Project's oil and gas development within the City-owned land in the Preserve.
WeideM-9	The proposed Project would develop the oil and gas resources until they are depleted and developing them is no longer economically viable or until the price of crude oil decreases to a level where production from the field is no longer economically viable. Currently, the amount of crude oil that could be produced from the field is unknown and future crude prices are difficult to assess. At a minimum, the proposed Project could operate for 25 years, which is the lease term approved by the City of Whittier. The other comments are not relevant to the scope of the EIR and, therefore, no response is provided.
WeideM-10	The comment is not relevant to the scope of the EIR and, therefore, no response is provided.

Teri Wilkinson

Comment #	Response
WilkinsonT-1	In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City would be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is working with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. Negotiations regarding refunding Proposition A between the City of Whittier and Los Angeles County are separate and distinct from the EIR process. The proposed lease includes a provision that the City will not issue a conditional use permit until a release from protected area status is obtained from the Proposition A District. As stated in Section 4.11, Land Use and Policy Consistency, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Oil and gas exploration and production are allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
WilkinsonT-2	Section 4.1, Air Quality, assesses the impact of toxic emissions both from drilling and operations. With mitigation, the emissions are considered to be less than significant according to the South Coast Air Quality Management District thresholds. Mitigation monitoring would ensure that the mitigation measures are implemented through conducting inspections. The South Coast Air Quality Management District would require air permits and source testing. Risk levels are estimated to be less than 10 in one million (for cancer). The South Coast Air Quality Management District MATES studies, discussed in Section 4.1, indicate that the primary source of health risk for cancer in the Los Angeles area are diesel trucks on area highways. Currently baseline cancer risks at the Project site are primarily from diesel exhaust from trucks on area roadways, according to the MATES studies the current risk is 810 cancer cases per million. This information is in the Draft EIR as well as on the South Coast Air Quality Management District website at www.aqmd.gov.

Comment #	Response
WilkinsonT-3	Appendix H addresses the socioeconomic impacts of the proposed Project.
WilkinsonT-4	No specific comment on the Draft EIR is included and, therefore, no response is provided.
WilkinsonT-5	Current demand for crude oil and resulting products is still quite high in California.

Dr. Clyde Williams

Comment #	Response
WilliamsC-1	Comment in opposition to the proposed Project is acknowledged.
WilliamsC-2	The access of the reserves from other areas using directional drilling was examined in the Draft EIR Section 5.0, Alternatives. Although some of the oil and gas could be accessed from the Landfill, for example, only up to an estimated 59% of the oil and gas could be recovered from this location. Other locations would recover less.
WilliamsC-3	The Draft EIR includes several mitigation measures, which would be applied to any permit and compliance would be monitored by the City of Whittier. This would effectively be equivalent to the Community Standards District currently being applied at the Baldwin Hills Oil Field. In fact, many of the mitigation measures in the Draft EIR are modeled on the Community Standards District EIR prepared for the Baldwin Hills Oil Field.
WilliamsC-4	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project, upon successful extraction and sale of oil, gas, and other hydrocarbons from the leased land, would provide the City with royalties, which would increase potential for improvements and future investment in the City. Additionally, these long-term proceeds would be directed toward the preservation and enhancement of the Preserve's ecological resources and native habitat. City decision makers would allocate these royalties.

Dr. C.T. Williams

Comment #	Response
WilliamsCT-1	The Draft EIR includes numerous mitigation measures, which would be applied to any permit and compliance would be monitored by the City of Whittier. This would in effect be equivalent to the CSD currently being applied at the Baldwin Hills Oil Field. In fact, many of the mitigation measures in the Draft EIR are taken from the CSD EIR prepared for the Baldwin Hills Oil Field.
WilliamsCT-2	The comment is unclear. However, please note that Section 8 contains a summary of mitigation measures and includes a Mitigation Monitoring Program including method, timing and responsible party.
WilliamsCT-3	Although the SCAQMD does not regulate methane emissions, it does regulate emissions of volatile organics, which are normally emitted with methane. Control of volatile organics would, therefore, also control methane emissions. The SCAQMD requires monitoring of fugitive emissions from components and would not allow the "venting" of gaseous components to the atmosphere. The Project design includes the use of vapor recovery and a flare system to capture methane (and volatile) emissions as well s a flare.
WilliamsCT-4	No comment is included on the Draft EIR and as such, no additional response is merited.

Comment #	Response
WilliamsCT-5	The issues that arise by looking for a location outside of the Preserve is that the drilling must be close enough to the oil to achieve a substantial recovery percentage and be far enough away from residences and the public to not cause impacts related to noise, air quality and safety and risk. The Landfill location was selected as being the best location that satisfies those criteria, even though the amount of oil recovered is lower than what Matrix considers feasible.
WilliamsCT-6	The comment is unclear. However, the EIR contains information about the Socioeconomic impacts of the Project as part of Appendix H. The EIR includes mitigation measures that would require restoration of lands that could be affected as a result of the Project. In some cases, and dependent on the types of habitat affected, mitigation requires replacement ratios of up to 3 to 1. It should also be noted, that the source of funding for the Preserve would be significantly curtailed upon the closure of the Puente Hills Landfill. Funding from the Project, if approved, would provide for the continued restoration and preservation of the Habitat Preserve, which would otherwise not occur.
WilliamsCT-7	Only the near-surface stratigraphy was described, as the deeper bedrock units are not relevant to geologic impacts associated with the Project. The geologic/geotechnical hazards related to the Project are related to the near surface sediments and bedrock materials. There are no geologic impacts to the deeper bedrock units. The deep-seated blind thrust faults have been discussed in detail in Section 4.4.1.4, Geologic Hazards. Other deep faults in the Project Area are inactive and irrelevant to geologic impacts. Soil and bedrock combined is commonly referred to as “soils” in the geotechnical engineering business. In accordance with CEQA, the geology beneath the project site has only been described in relation to potential impacts that might occur in association with the project. Other than faulting, which has been described in detail, the bedrock structure is not relevant to project impacts and therefore was not included in the text. Paleontological resources were addressed in Section 4.9, Cultural Resources and Archaeology; specifically, Section 4.9.1.6 Paleontological Assessment.
WilliamsCT-8	The issue of earthquake impacts to processing equipment is also discussed in Section 4.3, Safety, Risk of Upset, and Hazardous Materials, and generally coincides with the discussion in 4.4. Earthquake reconnaissance reports indicate that processing equipment, when designed and anchored corrected, does quite well in earthquakes. It is usually atmospheric tanks that have trouble, and their attached piping. That is why atmospheric tanks are given a higher failure rating in the risk analysis.
WilliamsCT-9	The oil proposed to be extracted as part of this proposed Project is not expected to contain significant levels of hydrogen sulfide.
WilliamsCT-10	All wells previously drilled in the area have been properly plugged and abandoned according to DOGGR.
WilliamsCT-11	The proposed Project does not include ownership, operations, maintenance, abandonment, or repair of existing wells in the Whittier oil field. Potential leaks from old abandoned wells in the Project vicinity have no impact with respect to the Project. See Section 4.3, Risk of Upset/Safety for additional information regarding potential surface gas leaks.
WilliamsCT-12	See response to comment WilliamsCT-11. In addition, see impact WR.5 for a discussion of potential groundwater quality impacts associated with the Project.

Comment #	Response
WilliamsCT-13	As the oil and gas have not been produced yet, the exact composition is not known. However, oil and gas withdrawn from the same or similar areas, such as Honolulu Terrance, was used to estimate the composition. Table 2-1 in Section 2.0, Project Description, includes this information.
WilliamsCT-14	No specific or clear comment is provided on the Draft EIR and no additional response is merited.
WilliamsCT-15	The comment is outside the scope of the EIR and, therefore, no response is provided.
WilliamsCT-16	No specific or clear comment is provided on the Draft EIR and no additional response is merited.
WilliamsCT-17	The comment is outside the scope of the EIR and, therefore, no response is provided.
WilliamsCT-18	The comment is outside the scope of the EIR and, therefore, no response is provided.

Tom Williams

Comment #	Response
WilliamsT-1	The Draft EIR includes numerous mitigation measures, which would be applied to any permit and compliance would be monitored by the City of Whittier. This would in effect be equivalent to the CSD currently being applied at Baldwin. In fact, many of the mitigation measures in the Draft EIR are taken from the CSD EIR prepared for the Baldwin Hills Oil Field.
WilliamsT-2	The comment is unclear. However, please note that Section 8 contains a summary of mitigation measures and includes a Mitigation Monitoring Program including method, timing and responsible party.
WilliamsT-3	Impact LU.3 residual impacts would be significant and unavoidable. Impact LU.2 residual impacts would be less than significant with mitigation. The corresponding residual impact statements in Section 4.11.4 come after the Impact Table.
WilliamsT-4	Although the SCAQMD does not regulate methane emissions, it does regulate emissions of volatile organics, which are normally emitted with methane. Control of volatile organics would, therefore, also control methane emissions. The SCAQMD requires monitoring of fugitive emissions from components and would not allow the “venting” of gaseous components to the atmosphere. The project design includes the use of vapor recovery and a flare system to capture methane (and volatile) emissions as well as a flare.
WilliamsT-5	No specific comment is included on the EIR and, therefore, no response is provided. Comment in opposition of proposed Project is acknowledged.
WillamsT-6	The issues that arise by looking for a location outside of the Preserve is that the drilling must be close enough to the oil to achieve a substantial recovery percentage and be far enough away from residences and the public to not cause impacts related to noise, air quality and safety and risk. The Landfill location was selected as being the best location that satisfies those criteria, even though the amount of oil recovered is lower than what Matrix considers feasible.

Comment #	Response
WilliamsT-7	Comment noted. The Geological Resources Section contains a thorough analysis of the potential geological impacts that could originate from the proposed Project.
WilliamsT-8	The comment is unclear. However, the EIR contains information about the Socioeconomic impacts of the Project as part of Appendix H. The EIR includes mitigation measures that would require restoration of lands that could be affected as a result of the Project. In some cases, and dependent on the types of habitat affected, mitigation requires replacement ratios of up to 3 to 1. It should also be noted, that the source of funding for the Preserve would be significantly curtailed upon the closure of the Puente Hills Landfill. Funding from the Project, if approved, would provide for the continued restoration and preservation of the Habitat Preserve, which would otherwise not occur.
WilliamsT-9	Only the near-surface stratigraphy was described, as the deeper bedrock units are not relevant to geologic impacts associated with the Project. The geologic/geotechnical hazards related to the Project are related to the near surface sediments and bedrock materials. There are no geologic impacts to the deeper bedrock units. The deep-seated blind thrust faults have been discussed in detail in Section 4.4.1.4, Geologic Hazards. Other deep faults in the Project Area are inactive and irrelevant to geologic impacts. Soil and bedrock combined is commonly referred to as “soils” in the geotechnical engineering business. In accordance with CEQA, the geology beneath the project site has only been described in relation to potential impacts that might occur in association with the project. Other than faulting, which has been described in detail, the bedrock structure is not relevant to project impacts and therefore was not included in the text. Paleontological resources were addressed in Section 4.9, Cultural Resources and Archaeology; specifically, Section 4.9.1.6 Paleontological Assessment.
WilliamsT-10	The issue of earthquake impacts to processing equipment is also discussed in Section 4.3, Safety, Risk of Upset, and Hazardous Materials, and generally coincides with the discussion in 4.4. Earthquake reconnaissance reports indicate that processing equipment, when designed and anchored corrected, does quite well in earthquakes. It is usually atmospheric tanks that have trouble, and their attached piping. That is why atmospheric tanks are given a higher failure rating in the risk analysis.

Appendix M

Previous Draft EIR Comments and Responses

California Natural Resources Agency
DEPARTMENT OF FISH AND GAME

ARNOLD SCHWARZENEGGER, Governor
JOHN McCAMMAN, Director

South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201
http://www.dfg.ca.gov

December 7, 2010

Mr. Jeff Adams
City of Whittier
13230 Penn Street
Whittier, CA 90602
Fax #: 562-464-3509

Subject: Draft Environmental Impact Report for Matrix Whittier Oil Field, SCH #2010011049, Los Angeles County

Dear Mr. Adams:

The Department of Fish and Game (Department) has received the draft Environmental Impact Report (DEIR) for the proposed Matrix Whittier Oil Field Project. The Project proposes to drill wells for oil and gas production on lands owned by the City of Whittier (City) for which the City also owns mineral rights. The Project includes three drill pad sites totaling approximately 7 acres included within a larger City owned property of approximately 1,290 acres of former oil fields. Additional impacts totaling approximately 6.1 acres plus additional unknown acres of impacts from road construction, pipe construction and fuel modification zones around the drill pads are proposed as part of the project. The project area was commonly known as the Whittier Main Field, an active oil field that produced oil for more than 100 years with approximately 500 drilled wells until the early 1990s. The majority of the land encompassing the oil field was purchased from Chevron and Unocal Corporation by the City via a grant of Proposition A funds. Proposition A authorized numerous urbanized counties statewide to issue a tax assessment for the purchase of open space including enhancing recreational opportunities and expanded access to recreational facilities for all residents throughout the district and improve the quality of life for all communities in the district by protecting, restoring, and improving the district's irreplaceable beach, wildlife, park, and open-space land.

The project sites are zoned as Open Space (OS) under the City Municipal Code *Section 18.09.010* which states "The purpose of the OS zone and provisions of this chapter is the delineation of wild lands, wildlife and wildlife habitat. Restoration and protection of such areas provides valuable resources for the community, and surrounding communities, through conservation and integrated use." The project sites are part of the larger Puente Hills Landfill Native Habitat Preserve (Preserve). The 3,869-acre Preserve is located at the eastern edge of Los Angeles County and extends across three municipalities: the City of La Habra Heights; the City of Whittier; and the communities of Rowland Heights and Hacienda Heights, both in unincorporated Los Angeles County. The Preserve is a part of the larger Puente Chino Hills Wildlife Corridor in which much attention and resources have been devoted to preserving connectivity through this area which connects to the San Gabriel River and Santa Ana Mountains.

Conditions of the Proposition A funding prevent the City from using the land for anything other than open space. The preserve, including the project sites is currently managed for the City by the Puente Hills Landfill Native Habitat Preservation Authority (Habitat Authority). Currently, activity at the Whittier Main Field is limited to Preserve operations and activities, which consist of restoration and management of natural areas, and management of educational and recreational facilities.

On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement with Matrix. The agreement leases the City's mineral rights underlying the Whittier Main Field to Matrix and provides that, subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land. In exchange, Matrix would pay the City royalties on proceeds from the sale of produced oil and natural gas.

In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space.

As proposed in the DEIR, the fully developed Project would consist of wells, an oil processing facility, a gas plant, a new access road, and an oil-truck loading facility located within portions of the 1,290 acres owned by the City. The oil and gas production and processing facilities would be located at three sites within the Whittier Main Field: the West Well Site, the Central Site, and the East Well Site (see Figure ES-2). A crude oil pipeline and a gas pipeline would be installed underneath Colima Road, sections of which separately fall within City and County unincorporated areas, to transport crude oil and gas to markets. All three of the sites would contain well cellars, well test stations, and liquid and gas separating equipment. In addition, the Central Site would house the oil processing facility and gas plant. The total pad area required for the oil and gas production and processing at the three sites is approximately 6.0 acres. An additional 4.4 acres may be temporarily disturbed for construction and grading the sites. Further, the County of Los Angeles Fire Department (LACoFD) may require a fuel modification zone (FMZ) around each pad area. An FMZ is a strip of land where combustible native or ornamental vegetation is modified or partially or totally replaced with drought-tolerant, low-fuel-volume plants. The truck loading facility would occupy an additional 1.1 acres within the Preserve. An additional 0.6 acres may be temporarily disturbed for constructing and grading the truck loading area. A new access road to the Central Site would be constructed from Colima Road, which would include turning lanes to and from the southbound side of Colima Road. The new access road would be constructed along the southern edge of the Preserve. Roads, pipelines, and electrical conduit corridors, called the "backbone," would be constructed to connect these site locations. Oil, gas, and produced water pipelines and electrical conduits would be constructed below ground mostly within the road system. Electrical and pipeline interconnections would be made to the Southern California Edison grid and the City of Whittier Sewer and Water District systems.

The Project would utilize approximately 1.1 miles of existing roads within the Preserve and would construct 0.5 miles of new roadways within the Preserve to access the various sites. Oil and gas would be transported by truck during the Drilling and Testing Phase and by pipeline during the normal Operations and Maintenance Phase.

Matrix proposes two methods for transporting the marketable crude oil during the operations phase. One method would convey the oil via pipeline to the Truck Loading Facility directly east

of the Central Well Pad area, where the oil would be loaded onto oil tanker trucks and transported to a nearby receiving terminal (e.g., possibly in Santa Fe Springs) and then transferred into the Crimson Pipeline System.

The second oil transportation method would transfer the marketable crude oil by pipeline from the Central Site to the existing Crimson Pipeline System via a new 2.8-mile pipeline connection to a tie-in at Leffingwell Road and La Mirada Boulevard. The Crimson Pipeline System would transport the crude to the ConocoPhillips Refinery in Wilmington. This would be the primary transport method, while the tanker truck method would be used during the oil pipeline construction and then as a back-up when the pipeline is temporarily shutdown.

The USFWS designates the Project Site as critical habitat for the federally threatened coastal California gnatcatcher (*Polioptila californica*). Two individual gnatcatchers and one family group have been observed within the Project Area boundaries during protocol surveys conducted in coastal sage scrub and riparian scrub on the Project Site. Project implementation would entail permanent loss of 2.73 acres of coastal sage scrub and 0.07 acres of riparian scrub for grading and clearing for fuel modification. Another 0.82 acres of coastal sage scrub and 0.12 acres of riparian scrub would be temporarily impacted by grading, and then restored. These represent potentially significant adverse effects upon this listed species and its required habitat.

The California Wildlife Action Plan, a recent Department guidance document, identified the following stressors affecting wildlife and habitats within the project area: 1) growth and development; 2) water management conflicts and degradation of aquatic ecosystems; 3) invasive species; 4) altered fire regimes; and 5) recreational pressures. The Department looks forward to working with the Lead Agency to minimize impacts to fish and wildlife resources with a focus on these stressors. Please let Department staff know if you would like a copy of the plan to review.

The following comments were prepared under the Department authority as California's trustee agency for fish and wildlife resources, holding these resources in trust for the People of State pursuant to various provisions of the California Fish and Game Code. (Fish & G. Code, §§ 711.7, subd. (a), 1802.) The Department submits these comments in that capacity under the California Environmental Quality Act (CEQA). (See generally Pub. Resources Code, §§ 21070; 21080.4.) Given its related permitting authority under the California Endangered Species Act (CESA) and Fish and Game Code section 1600 et seq., the Department also submits these comments likely as a responsible agency for the Project under CEQA. (*Id.*, § 21069.):

CEQA Compliance

CDFG-1

1. Open Space Zoning Provision – The proposed project site is within a Preserve area that is zoned as Open Space by the City.

The DEIR does not appear to include a rezoning proposal that would change the land use provisions for the project site. Because oil and gas extraction and resulting environmental impacts, including significant unavoidable impacts to wildlife movement and loss of occupied coastal California gnatcatcher habitat is not compatible with the City's stated zoning ordinance the DEIR should clearly explain this apparent inconsistency.

2. Whole of the Action Considerations - The DEIR states "On October 28, 2008, the City entered into an Oil, Gas, and Mineral Lease Agreement (Lease Agreement) with Matrix. The agreement leases the City's mineral rights underlying the Whittier Main Field to Matrix and provides that,

subject to a conditional use permit (CUP) and contractual provisions, Matrix could have certain rights, including drilling exploratory oil wells and extracting oil, gas, and other hydrocarbons, such as natural gas liquids, from the land."

CDFG-2 a. The DEIR does not appear to reference any previous level of CEQA review regarding the Oil, Gas, and Mineral Lease Agreement with Matrix in 2008 or a zoning ordinance change to accommodate the project. CEQA requires a lead agency to consider the whole of the action when analyzing a project's environmental impacts (CEQA Guidelines §15063(a)(1), §15378). This includes activities that lead to reasonably foreseeable direct and/or indirect effects which are actual or potential (CEQA Guidelines §15064(d)).

CDFG-3 b. If the Lead Agency prepared a Negative Declaration or Environmental Impact Report for the Lease Agreement, the Department believes that this action is part of the same project and should have been discussed in one CEQA document which included the proposed Project CUP consideration prior to entering into the Lease Agreement. The preparation and circulation of separate CEQA documents for actions that are parts of the same project (commonly referred to as "piece-mealing") is therefore not allowed by CEQA. The Department believes the Lease Agreement, zone change request and the CUP should be noticed under one CEQA document as it was reasonably foreseeable that the proposed Project and zone change is the direct and/or indirect effect of the Lease Agreement.

CDFG-4 c. If the Lead Agency prepared a Categorical Exemption for their discretionary issuance of a Lease Agreement, a Categorical Exemption should not be used for any activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances (CEQA Guidelines §15300.2(c).

CDFG-5 d. The Department recommends that the Lease Agreement be invalidated pending further Lead Agency discretionary action approvals following the public comment period for a CEQA documents that includes the whole of the action which includes the Lease Agreement, request for zone change and CUP if this has not already been accomplished.

Project Alternatives

1. No Project Alternative – The DEIR describes a no project alternative. With the No Project Alternative, the field would not be developed and the resources of the field would not be utilized. Under the No Project Alternative, no new activity would occur at the Preserve.

CDFG-6 a. The Department recommends that no oil and gas extraction take place within the Project sites zoned as open space within an open space preserve recognized for its biological resource attributes. The no project alternative would avoid impacts to biological resources within this preserve. The proposed activities appear to be incompatible with the unique biological attributes for which this location was zoned. In addition, if extraction occurs within the preserve area, there is concern about further degradation of the preserve area by the City's extraction proposals in the future.

CDFG-7 b. The Department recommends an additional Project alternative in which areas within the City included within the Preserve, such as the proposed Project sites, be protected in perpetuity under conservation easements via a conservation mitigation banking program. If the City is seeking additional revenue from its property within the Preserve, it could designate these areas as a conservation mitigation bank and sell mitigation credits. This alternative would be

more biologically compatible with the zoning designation and the conservation visions for which the City originally proposed for this area.

Project Footprint Description

CDFG-8

New Road Construction – The DEIR states that "The Project would utilize approximately 1.1 miles of existing roads within the Preserve and would construct 0.5 miles of new roadways within the Preserve to access the various sites."

Please clearly describe in the EIR the impact acreages from the new 0.5 miles of new roadways.

CDFG-9

Fuel Modification – The DEIR states that "the County of Los Angeles Fire Department (LACoFD) may require a fuel modification zone (FMZ) around each pad area."

Please clearly describe in the EIR the impact acreages from the FMZ.

CDFG-10

New Connection Pipeline - The DEIR states "The second oil transportation method would transfer the marketable crude oil by pipeline from the Central Site to the existing Crimson Pipeline System via a new 2.8-mile pipeline connection to a tie-in at Leffingwell Road and La Mirada Boulevard."

Please clearly describe in the EIR the impact acreages from the new pipeline footprint and if it will cross jurisdictional waters of the state. Linear projects such as this often impact Department jurisdictional streambeds.

Impacts to Biological Resources

CDFG-11

1. Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) – The project site appears to support habitat for the Los Angeles pocket mouse.

a. The Los Angeles Pocket mouse, a California species of special concern is a small mammal that is often overlooked during biological assessments in the county. The DEIR should describe the presence or absence of suitable habitat for the Los Angeles pocket mouse and any related impacts. The absence of trapping efforts for this species in this area should not be used to rule out presence minus recent focused trapping efforts conducted on the project sites within suitable habitat.

CDFG-12

2. San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) – The site appears to support suitable habitat for the San Diego black-tailed jackrabbit, a California species of special concern.

a. The DEIR should describe the presence or absence of suitable habitat for the. San Diego black-tailed jackrabbit and any project related impacts.

Mitigation Measures

1. Coastal Sage Scrub – The DEIR states "To mitigate the Project's permanent loss of 2.73 acres of coastal sage scrub, the Project proponent shall provide minimum 2:1 area replacement by restoring 5.46 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero

CDFG-13

watersheds to coastal sage scrub communities, or as otherwise agreed to by the appropriate resource agencies and the City. "

The Department recommends approximately 8.2 acres replacement for coastal sage scrub deemed to be occupied by coastal California gnatcatcher.

2. Salvage – The DEIR states that "There would be a net loss of the number of individuals of each species displaced from the area of grading."

CDFG-14

a. A biological monitor should be on site during vegetation and ground disturbing activities to salvage wildlife species of low mobility that may be killed or injured by heavy equipment and other project activities. Salvage attempts should include but not be limited for species such as San Diego desert woodrat (*Neotoma lepida intermedia)*, American badger (*Taxidea taxus)* and Los Angeles pocket mouse within appropriate habitat.

CDFG-15

b. Salvaged wildlife should be relocated onto suitable adjacent undisturbed habitat within the Preserve. Site disturbances should be conducted outside the breeding season for special status species to avoid mortality of dependant young.

Thank you for this opportunity to provide comments. Please contact Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

Edmund Pert
Regional Manager
South Coast Region

cc: Ms. Helen Birss, Los Alamitos
Ms. Terri Dickerson, Laguna Niguel
Ms. Kelly Schmoker, Pasadena
Mr. Scott Harris, Pasadena
Ms. Sarah Rains, Thousand Oaks

State Clearinghouse, Sacramento

California Department of Fish and Game Comments

Number	Response
CDFG1-1	Section 4.11, Land Use and Policy Consistency Analysis, identifies the Project Site's designation as open space of "high sensitivity" under the City of Whittier General Plan. Although many of the General Plan's open space policies identify the need to preserve and carefully manage such areas, the Plan also calls for a "balance between oil drilling activities and the protection of plant and animal communities in the hillsides." Additionally, the General Plan permits oil and gas production in all zone districts. The City Zoning Ordinance implements the General Plan and provides more specific criteria for development. The Project Site is zoned as open space under the City of Whittier Municipal Code. Oil and gas exploration and production is allowed with a Conditional Use Permit under Section 18.52.030.
CDFG1-2	The California Environmental Quality Act (CEQA) defines a project as the whole of an action, which has a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA analysis of a project should occur as early as possible, this EIR serves as the environmental review for the entire action that includes the review necessary for consideration of the issuance of a Conditional Use Permit to proceed with the proposed Project. While the lease agreement was signed in October of 2008, the lease stipulated that the lease agreement and a subsequent project could not occur until environmental review was conducted and a Conditional Use Permit application was brought forth for the City's consideration. The Staff Report considering the lease specifically stated that signing the lease agreement did not guarantee that the successful bidder would be able to obtain a Conditional Use Permit after completing the environmental review. Also, when the lease was signed, there were no Project-specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, "Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." At the time of the lease approval, no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time.
CDFG1-3	The California Environmental Quality Act (CEQA) defines a project as the whole of an action, which has a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA analysis of a project should occur as early as possible, this EIR serves as the environmental review for the entire action that includes the review necessary for consideration of the issuance of a Conditional Use Permit to proceed with the proposed Project. While the lease agreement was signed in October of 2008, the lease stipulated that the lease agreement and a subsequent project could not occur until environmental review was conducted and a Conditional Use Permit application was brought forth for the City's consideration. The Staff Report considering the lease specifically stated that signing the lease agreement did not guarantee that the successful bidder

Number	Response
	would be able to obtain a Conditional Use Permit after completing the environmental review. Also, when the lease was signed, there were no Project-specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, "Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." At the time of the lease approval, no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. While the City issued a preliminary lease agreement in October of 2008, that lease could not be executed and impacts could not occur until the Applicant presented a specific Project and the City conducted environmental review and considered the issuance of a Conditional Use Permit. The lease agreement itself could not have caused any environmental impacts because it contained requirements that had not and will not be met until this environmental review is complete and the City ultimately decides on the Conditional Use Permit application. At the time of the lease agreement, no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. The proposed Project would not require any zone changes because oil and gas drilling are allowed in the Open Space zone district with a Conditional Use Permit.
CDFG1-4	No categorical exemption has been issued for this proposed Project. The environmental review required under CEQA is the environmental impact report process. Concerns about lack of CEQA review at the time of the issuance of the lease should have been expressed at that time and within the 180-day statute of limitations for such an action if a Notice of Exemption was not filed by the City. The responses to comments CDFG1-2 and CDFG1-3 also address these concerns.
CDFG1-5	As stated in the responses to comments CDFG1-2, CDFG1-3, and CDFG1-4, the proposed Project and potential impacts to the environment cannot occur as a result of the issuance of the lease. No action can be taken pursuant to the lease agreement until the City of Whittier considers and decides whether to issue a Conditional Use Permit. The City will not decide on the issuance of the Conditional Use Permit until this environmental impact report process is complete. The proposed Project would not require any zone changes is because oil and gas drilling are allowed in the Open Space zone district with a Conditional Use Permit.
CDFG1-6	The commenter's concerns about the impacts of potential oil drilling within the Preserve and opposition to the Project within the Preserve are acknowledged. The proposed Project would not require any zone changes because oil and gas drilling are allowed in the Open Space zone district with a Conditional Use Permit.
CDFG1-7	The objective of the proposed Project is production of oil and gas from existing reservoirs in the area. The alternative proposed by the commenter does not meet the objective of the Project and consequently does not merit further consideration.
CDFG1-8	Impacted acreages for the proposed Project pad areas and roadways, by vegetation type (including previously disturbed or existing roadways), are shown in Section 4.2, Biological Resources, Table 4.2-3. Also included are

Number	Response
	the areas that would be disturbed associated with construction and grading as well as the areas that would require fuel modification as per Fire Department fuel modification guidelines. Fuel modification along access roadways would be 10 feet on each side of the roadway.
CDFG1-9	The EIR preparers have worked with the County of Los Angeles Fire Department (LACoFD) to determine what the requirements are related to fuel modification zones. As it currently stands, the LACoFD would not require any fuel modification zone except around "buildings," according to California Department of Forestry and Fire Prevention (CAL FIRE) requirements. The only Project-related building is the office proposed at the Central Well Site (see Appendix A of the Draft EIR); the Applicant indicated on the plot plans in Appendix A that a 100-foot fuel modification zone would surround this building. There are no CAL FIRE or LACoFD requirements for fuel modification zones around oil well or processing equipment. Fire department field inspections after the facilities are installed may generate some recommendations for fuel modification, including cutting back brush. None of the other pads or equipment would require any fuel modification zone. Roadways would require a 10 foot fuel modification zone and these have been addressed in the DEIR. However, the Applicant's plans indicate that they would install 20-foot fuel modification zones around all well pad exterior walls, which has been analyzed for impacts in Section 4.2, Biological Resources, of the Final EIR, and in Section 6.0, Comparison of Proposed Project and Alternatives. In addition, mitigation measures in Section 4.12, Fire Protection and Emergency Response, require 30-foot fuel modification zones around all equipment. The more conservative numbers have been used for assessing impacted areas. Table 4.2-3 in Section 4.2, Biological Resources, lists impacted areas by vegetation type
CDFG1-10	The pipeline along Colima Road would be located entirely within existing roadways. Section 4.1, Air Quality, addresses areas along the Colima Road pipeline associated with construction impacts related to fugitive dust. The pipeline route would not cross any jurisdictional waters of the state.
CDFG1-11	Discussions of the range, habitat requirements, and known local occurrences for the Los Angeles pocket mouse with Richard A. Erickson, who worked on the 2007 Resource Management Plan as a senior biologist for LSA Associates. Mr. Erickson indicated that the Los Angeles pocket mouse has never been recorded in the Puente Hills and is not expected to occur. This species was added to the Table 4.2-2, Special Status Wildlife, and described as being not known or expected to occur onsite.
CDFG1-12	Discussions of the range, habitat requirements, and known local occurrences of the San Diego black-tailed jackrabbit with biologists Richard A. Erickson and Daniel S. Cooper, both of whom have extensive experience in the Chino-Puente Hills. Neither of these local experts believed that this lagomorph persists in the Whittier Hills, based on a lack of records in recent decades. This species was added to the Table 4.2-2, Special Status Wildlife, and described as being not known or expected to occur onsite.
CDFG1-13	This comment recommends a replacement ratio of 3:1 for the loss of coastal sage scrub habitat, and this change is being made for the Final EIR. Mitigation measure BIO-1a specified that "restoration shall comply with the Habitat Authority's Restoration Guidelines" and referred the reader to Appendix N. Mitigation measure BIO-1a includes a 3:1 replacement ratio for coastal sage scrub communities in the Final EIR.
CDFG1-14	Mitigation measure BIO-4k has been updated to require a biological monitor

Number	Response
	during all vegetation removal and ground disturbance. The monitor will salvage and relocate wildlife species and will be able to halt activities and permit requirements and conditions are not met.
CDFG1-15	Mitigation measure BIO-4e and 4f already require that initial ground disturbances occur outside the bird-breeding season, from February 15 through August 31, which includes the breeding season of most of the other sensitive species potentially present in the Project area.

CLAREMONT LAND GROUP

Geralyn L. Skapik
GSkapik@ClaremontLandGroup.com

Attorneys
250 West First Street, Suite 330
Claremont, CA 91711
(909) 354-8825
Fax (909) 398-1883

December 6, 2010

Members of the Whittier City Council
c/o Jeff Adams
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602

SUBJECT: Comments on the Draft EIR for the Whittier Main Oil Field Development Project on behalf of Open Space Legal Defense Fund (OSLDF)

Dear Members of the City Council:

The taxpayers of the State of California entrusted the City of Whittier with protection of 4,000 acres of land designated Significant Ecological Areas by Los Angeles County and some of the last remaining chaparral, native oak woodlands, and coastal sage scrub in Southern California. As we have noted in other contexts, the City has ignored its responsibilities as a trustee of this irreplaceable asset. Instead, the City has joined with an oil company to profit from this protected area. Worse, the City has chosen to shortcut the approval process. This Draft EIR is an example of a poor attempt by the City to justify a decision already taken.

The attached analysis was prepared by Dr. Susan O'Carroll. Dr. O'Carroll has been managing the preparation of environmental documents for twenty years. In addition to preparing numerous EIRs, she has been hired by cities to provide customized CEQA training for their staffs, as contract staff overseeing the environmental review of controversial projects, and to cure defects in documents prepared by other consultants.

As shown in the attached analysis, at its heart, the Draft EIR for the Whittier Main Oil Field Development Project is nothing more than an attempt to misdirect, mislead and exhaust the public and reviewing agencies with 600-plus pages of shoddy analysis of a "Proposed Project" which, as described in the EIR, does not meet the terms of the Lease Agreement between the City and Matrix Oil. This feign effort by the City appears to be contrived to make the public grateful for the "environmentally superior" Consolidated Central Site with Landfill Access, Integrated Truck Loading Facility and Lambert Railroad Right-of-Way Pipeline Alternative, which has "only" 6-8 identified Significant Unavoidable Impacts. Interestingly, the DEIR never actually provides a detailed analysis of this particular alternative, choosing

instead to provide analyses of component parts in combination with the other elements of the Proposed Project.

What Matrix Oil is clearly hoping is that the exhausted readers of the DEIR will fail to notice that this "environmentally superior alternative" has:

- ☑ No project plans
- ☑ No site plans
- ☑ No roadway plans
- ☑ No infrastructure plans
- ☑ No drainage plans
- ☑ No operational plans
- ☑ No Traffic Impact Study prepared by a qualified traffic engineer
- ☑ No Geotechnical Study prepared by a qualified geologist
- ☑ No Hydrology Study prepared by a qualified hydrologist or geohydrologist
- ☑ No Habitat Conservation Plan
- ☑ And, is lacking many of the other plans needed for a meaningful analysis

The "environmentally superior" Consolidated Central Site with Landfill Access, Integrated Truck Loading Facility and Lambert Railroad Right-of-Way Pipeline Alternative consists of a few lines on a map, in the form of DEIR Figure 5-2, and about a page of disjointed narrative description. The analysis of the alternative is segmented into separate analyses of the four component parts of the alternative, in clear violation of the California Environmental Quality Act's (CEQA's) prohibition against breaking a project into pieces for purposes of analysis. This segmented analysis of the alternative only further serves to confuse any real understanding of the likely impacts of this alternative which, not surprisingly, has been endorsed by Matrix Oil. It also serves to further confuse any understanding of what the project actually is. Any conclusion about the relative merits of this one-from-column A, one-from-column B, mix-and-match alternative, which is the defacto project, is therefore entirely speculative.

The EIR appears designed to confuse the reader into thinking that the mythical environmentally superior alternative, which has no plans or analysis, is preferable to the proposed project, in the hopes that the reader gets so caught up in the shell game that they will forget there is a better option: No Project.

The Draft EIR for the Whittier Main Oil Field Development Project is an example of a fatally flawed process resulting in a fatally flawed project and DEIR. Illustrative of the quality of the document being presented for public and agency review is that two extremely important sections, the Hydrology and Geotechnical Sections, were prepared by individuals with degrees in Political Science and Law – there is NO analysis prepared by a licensed or registered geologist or hydrologist contained within the DEIR or appendices. The City and Matrix intend to drill 60 wells in proximity to an earthquake fault

area with no technical analysis by any individual remotely qualified to opine in this subject area. The analysis set forth in these two sections of the EIR equate to nothing more than a sham analysis and the City should be embarrassed to pass this off to the public and agencies for review and consideration.

This project is a classic example of a government rushing to sell off precious public resources without appropriate prior analysis or due consideration. The result is:

(a) A violation of the public trust;
(b) Piecemeal planning and environmental analysis;
(c) *Post hoc* rationalization for a predetermined result;
(d) An EIR which analyzes a proposed project which violates the terms of the executed contract between Matrix Oil and the Lead Agency and which results in 15 significant unavoidable impacts identified in the DEIR, as well as additional impacts which are not identified or which are underestimated in the DEIR;
(e) An EIR which fails to analyze the project as a whole;
(f) Improper deferral of mitigation and analysis to the indefinite future;
(h) An inadequate alternatives analysis;
(i) An "environmentally superior alternative" that is described so vaguely as to be no description at all, and which can therefore be apparently whatever the applicant wants;
(j) A project which does not appear to meet the objectives of the Lead Agency;
(k) A project which does not meet the conditions necessary for a Conditional Use Permit; and;
(l) A Lease Agreement and project that violates the terms of Charter of the City of Whittier.

We urge the Whittier City Council to deny the project. Pursuant to CEQA Guidelines Section 15042 and Paragraphs 1 and 6.1 of the Lease Agreement, we ask the City Council to:

☑ Find the proposed project inconsistent with the terms of the lease.
☑ Suspend processing of the EIR.
☑ Deny the project.
☑ Cancel the contract.

Very truly yours,

CLAREMONT LAND GROUP

GERALYN L. SKAPIK

GLS:mr

December 3, 2010

Ms. Geralyn L. Skapik, Esquire
CLAREMONT LAND GROUP
250 West First Street, Suite 330
Claremont, CA 91711

SUBJECT: Comments on the Draft EIR for the Whittier Main Oil Field Development Project on behalf of Open Space Legal Defense Fund (OSLDF)

Dear Ms. Skapik:

As requested by the Open Space Legal Defense Fund (OSLDF) and your firm, I have reviewed the Draft Environment Impact Report (DEIR) for the Whittier Main Oil Field Development Project. As detailed in this comment letter, the DEIR for this project is fundamentally and basically inadequate and conclusory in nature. The document not only violates a number of key CEQA precepts, such as the prohibitions against piecemealing, post hoc rationalization, and deferred mitigation, it also fails to identify a number of Significant Unmitigated Impacts, underestimates project impacts due to both a failure to analyze the whole of the action and an inadequate and incomplete project description, and fails to address a number of the potential impact areas contained in the CEQA checklist. The document is so fundamentally and completely inadequate that if the City seeks to continue with the processing of this application, in my opinion, the DEIR must be completely rewritten and recirculated.

Because the document is so fundamentally flawed, the comments contained in this letter should be viewed as illustrative of the problems with the document, rather than as a comprehensive catalogue of the document's defects. A number of the conclusions contained in the DEIR are not supported by facts, reasonable assumptions predicated on facts, or expert opinion supported by facts. In fact, expert opinion is sorely lacking in the DEIR. The analyses of a number of the issue areas are not based on detailed technical studies by qualified experts. For example, despite the fact that this is a project involving the drilling of 60 wells, there is no geotechnical or hydrology report for the project included as part of the DEIR.

Because the document suffers from a number of fatal flaws, comments on the wording of mitigation measures, and more technical issues, are not provided as part of these comments. These types of comments are best left to a review of the next generation, if any, of the DEIR for this project.

Due to the length of my comments, a Table of Contents is provided as part of this letter. Comments are organized as follows:

1.0 Fatally Flawed Process
2.0 Fatally Flawed Project Description
3.0 Failure To Describe Or Analyze The Whole Of The Action
4.0 Inadequate Cumulative Projects List
5.0 Inadequate Impact Analysis
6.0 Inadequate Alternatives Analysis
7.0 Inaccurate Analysis of Growth Inducing Impacts
8.0 Reasons for Rejection

Perhaps the most troubling element of the DEIR is the analysis of the "environmentally superior alternative." I would like to draw your attention to the discussion in Section 6.3 of this comment letter which explains that there is no actual analysis contained in the DEIR specifically of the Consolidated Central Site with the Landfill Road Access an Integrated Truck Loading Facility and the Lambert Railroad Right-of-Way Pipeline Alternative configuration. In addition, there are no plans or any detailed description of this alternative on which to base any real analysis or conclusions regarding the relative merits of the alternative. This is particularly troubling given that the proposed project appears to violate the terms of the Lease Agreement, this alternative has been endorsed by Matrix Oil, and has gained traction as the preferred alternative and a replacement for the proposed project analyzed in the DEIR. One would hope that the City would not seriously consider approving something for which there are no plans on which to base an independently verifiable analysis.

Sincerely,

Susan O'Carroll, Ph.D
Principal

TABLE OF CONTENTS

1.0 FATALLY FLAWED PROCESS 7
1.1 FAILURE TO PREPARE AND ANALYZE A PLAN FOR OIL DRILLING WITHIN THE HABITAT PRESERVE.....8
1.1.1 Oil and Gas Extraction is Not Addressed Within The 2007 Resource Management Plan for the Preserve..... 8
1.1.2 The City Failed to Conduct An Analysis To Determine Whether, Where and How Much Oil and Gas Extraction Should Be Allowed on City Prop A Land Within the Preserve..... 10
1.2 FAILURE TO CONDUCT A COMPETITIVE BID PROCESS.....12
1.3 FAILURE TO CONDUCT CEQA ANALYSIS PRIOR TO CONTRACT APPROVAL 13
1.4 RESULT IS POST HOC RATIONALIZATION.....13
1.5 RESULT IS A PIECEMEALED PERMITTING PROCESS AND PROJECT14
1.6 RESULT IS A LEASE AGREEMENT WHICH VIOLATES THE CITY CHARTER.....14
1.7 RESULT IS CONTRACT WHICH ENCOURAGES PUMPING MAXIMIZATION 15
1.8 FAILURE TO ADDRESS COMMENTS RECEIVED DURING THE PUBLIC SCOPING PROCESS.....15
2.0 FATALLY FLAWED PROJECT AND PROJECT DESCRIPTION 16
2.1 PROPOSED PROJECT VIOLATES CONTRACT TERMS.....16
2.1.1 Number of Sites Violates the Lease Provisions 17
2.1.1.1 Project Described in the Conditional Use Permit Violates the Lease Provisions Regarding Number of Sites..... 17
2.1.1.2 Project Described in the DEIR Violates the Lease Provisions Regarding Number of Sites..... 18
2.1.2 Project Acreage Violates the Lease Provisions 18
2.1.3 Failure to Identify Violation of Lease Terms Results in Underestimate of Impacts..... 24
2.2 THE DEIR IS FATALLY FLAWED BECAUSE IT IS FOCUSED ON THE ANALYSIS OF AN INFEASIBLE PROJECT 25
2.3 PROPOSED PROJECT AND THE ALTERNATIVES VIOLATE PROPOSITION A, AND PROPOSITION A MAKES BOTH THE PROJECT AND THE ALTERNATIVES INCONSISTENT WITH THE CITY'S OBJECTIVES......27

2.4 FAILURE TO ADEQUATELY DESCRIBE PROJECT FEATURES OR PHASES – FEATURES NOT SHOWN ON PROJECT PLANS OR ADEQUATELY DESCRIBED 29
2.4.1 Project Site 29
2.4.2 Project Wells 29
2.4.3 Detention Basins 29
2.4.4 Mud Pits and Wastewater Storage 29
2.4.5 Roadway Design 30
2.4.6 Limits of Grading 30
2.4.7 Fuel Modification 30
2.4.8 Equipment Storage and Parking 31
2.4.9 Well Abandonment and Restoration 31
2.4.10 Transmission Pipeline 31
2.4.11 Odor Minimization Plan and Air Monitoring Plan 31
2.4.12 Relocated Ranger Residence 31
2.4.13 Noise Reduction Plan and Noise Reduction Measures 32
2.4.14 Habitat Conservation Plan 32
3.0 THE DEIR FAILS TO DESCRIBE OR ANALYZE THE WHOLE OF THE ACTION 32
3.1 FUTURE CONDITIONAL USE PERMITS (CUPS) 34
3.2 FAILS TO IDENTIFY THE AMOUNT OR NATURE OF PROP A COMPENSATION 35
3.3 FAILS TO IDENTIFY THE LOCATION OR FEASIBILITY OF COMPENSATION ACREAGE 35
3.4 FAILS TO ADDRESS ACTIONS SUBJECT TO THE NATIONAL ENVIRONMENTAL POLICY ACT 35
4.0 INADEQUATE CUMULATIVE PROJECTS LIST 36
5.0 INADEQUATE IMPACTS ANALYSIS 37
5.1 RESULT OF PIECEMEALING IS AN UNDERESTIMATE OF PROJECT IMPACTS 37
5.2 FAILURE TO IDENTIFY AND/OR UNDERESTIMATE OF SIGNIFICANT PROJECT IMPACTS 37
5.2.1 Air Quality 37
5.2.2 Biological Resources 40
5.2.3 Safety, Risk of Upset and Hazardous Materials 56
5.2.4 Geological Resources 59

5.2.5 Noise and Vibration 61

5.2.6 Aesthetics and Visual Resources 65

5.2.7 Transportation and Circulation 71

5.2.8 Hydrology and Water Resources 84

5.2.9 Wastewater 86

5.2.10 Land Use and Policy Consistency 87

5.2.11 Fire Protection and Emergency Services 91

5.2.12 Public Services and Utilities 93

5.2.13 Recreation 95

5.2.14 Environmental Justice 96

5.3 SIGNIFICANT UNAVOIDABLE PROJECT IMPACTS 96

5.4 DEFERRED ANALYSIS AND MITIGATION 97

6.0 INADEQUATE ALTERNATIVES ANALYSIS 97

6.1 THE DESCRIPTIONS OF THE ALTERNATIVES ARE CONFUSING AND INCOMPLETE OR ABSENT 98

6.2 INFEASIBILE PROJECT ALTERNATIVE 100

6.2.1 The Consolidated Upper Colima Road With Access Through Arroyo San Miguel Trail And The Truck Loading Facility Directly Off Colima Road Analyzed In Section 6.1.2 Of The DEIR 100

6.3 INADEQUACY OF THE ANALYSIS OF THE REMAINING ALTERNATIVES 102

6.3.2 Consolidated Central Site with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative 102

6.3.3 No Project Alternative 105

6.3.4 Environmentally Superior Alternative 105

6.4 FAILURE TO CONSIDER LESS HARMFUL ALTERNATIVES 106

6.5 DEIR ANALYZES ONLY ONE FEASIBLE SITE CONFIGURATION 106

7.0 INACCURATE GROWTH INDUCING IMPACTS ANALYSIS 107

8.0 REASONS FOR DENIAL 107

8.1 REASONS TO REJECT THE EIR 107

8.1.1 Recirculation Required 107

8.1.2 The DEIR Is So Fundamentally Flawed That Even Recirculation Will Not Cure the Defects in The Planning and EIR Process 108

8.2 REASONS TO REJECT THE PROJECT 108

EXHIBITS 111

A Comment Letters On The NOP Requiring Responses
B June 5, 2001 Press Release (http://www.matrixoilcom/contents/matrix-acquires-whittier-fied)
C http://whittieroil.com/frequently-asked-questions
D http://www.matrixoil.com/partners
E March 12, 2008 ,Whittier Daily News, Briefing on the "City's Negotiations to Consider the Extraction of Minerals From City Property" (http://www.whittierdailynews.com/ci_8546758
F August 26, 2008 City Council Minutes And Agenda - Resolution Of Intention To Lease Property For Production Of Oil
G Lease Agreement
H October 28, 2010 City Council Minutes And Agenda For Award Of The Bid
I Plan Sheets Included In The Conditional Use Permit Application: 4202-000-1001, 4202-000-1002, 4202-000-1003, And 4202-000-1004
J http://whittieroil.com/environment-technology
K SCAQMD Violations Notices For Existing Matrix Facilities In The Area.
L Fire Incident Report – Matrix Facilities

1.0 FATALLY FLAWED PROCESS

Matrix Oil has been operating in the Whittier area since 2001. According to a June 5, 2001 press release (http://www.matrixoilcom/contents/matrix-acquires-whittier-fied) (see **EXHIBIT B**) Matrix Oil acquired all of Venoco's interests in the Whittier Oil Field in approximately October of 2001. According to the press release, the field was producing 240 barrels of oil per day from 21 wells along with 180 mcf of gas per day when Matrix acquired its interest. In 2001 Matrix's estimated net acquisition was 400,000 barrels of oil because of a 50-50% joint operating agreement it entered into with California-based Bonanza Creek Energy which enhanced production and optimized operations. In the press release Matrix indicated that it had identified approximately 1 Million barrels of undeveloped oil reserves located in oil zones behind pipes in current producing wells or located in untapped zones between current producing wells. The total estimated field reserves to all interests were approximately 2 Million barrels of oil and natural gas equivalent, located in current wells as producing reserves, and in untapped zones as undeveloped reserves. The then current oil price was 21 dollars WTI.

According to http://whittieroil.com/frequently-asked-questions (see **EXHIBIT C**), Matrix indicates that it currently has 25 active wells in the area. The wells produce approximately 350 barrels of oil per day along with natural gas. Since 2001, Matrix has produced approximately 800,000 barrels of oil from its operations. The website indicates that Matrix currently operates two sites in the area. The two sites are located in the western portion of the Whittier Field and are named Honolulu Terrace and Rideout Heights Sycamore Canyon.

The Honolulu Terrace Site is located within the City of Whittier limits and the Rideout Heights Sycamore Canyon Site is located adjacent to the City within the Puente Hills Native Habitat Preserve. The website indicates that Matrix currently operates nine active wells at the Sycamore Canyon facility, which includes five new wells drilled since 2007.

OSLFD-1

The DEIR needs to provide information on all of Matrix's operations within the Whittier Oil field, the number of sites, the number of operating wells at each site, the number drilled at each site since 2001, the pumping rates, and the permitting agencies. Based on a review of the CEQANET website, I have been unable to identify any environmental review for the wells drilled by Matrix since it acquired its interest in the oil field in 2001. I was also unable to identify any environmental review for the new wells located within the Habitat Preserve. The EIR for this project needs to include information on the Lead Agency and type of environmental document prepared for the drilling which has occurred since 2001 at either of these two locations or any other locations within the oil field, along with the State Clearinghouse number for all environmental documents for current operations.

Information on Matrix's current operations, any planned expansions and the associated environmental documentation for these operations needs to be described in the DEIR. It is clear from Matrix's history within the City and Habitat Preserve that the proposed project represents a cumulative expansion of Matrix's operations within the Whittier Oil Field.

1.1 FAILURE TO PREPARE AND ANALYZE A PLAN FOR OIL DRILLING WITHIN THE HABITAT PRESERVE

Despite Matrix's plans for expanded pumping within the Puente Hills Landfill native Habitat Preserve (Habitat Preserve), neither the Habitat Authority nor the City has conducted an analysis of the advisability of conducting drilling and reintroducing oil production within the Habitat Preserve. Neither the Habitat Authority nor the City has conducted an analysis of the appropriate level or acceptable locations for oil production.

OSLFD-2

CEQA Guidelines Section 15004 requires that environmental review be conducted as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment. It is clear from the history of this project that both the City and the Habitat Authority have failed in their duty to comply with CEQA and that the appropriate environmental review necessary to determine whether, where, and how much drilling should be allowed within the Habitat Preserve has not been conducted.

1.1.1 Oil and Gas Extraction is Not Addressed Within The 2007 Resource Management Plan for the Preserve

In July of 2007 the Habitat Authority adopted the Puente Hills Landfill Native Habitat Preservation Authority Resource Management Plan for the Habitat Preserve (RMP). Despite the fact that it appears that oil operations were already occurring in Sycamore Canyon and that Matrix was planning to drill additional wells within the Sycamore Canyon part of the Habitat Preserve, as discussed in Section 1.0 of this letter, the RMP, which was prepared by LSA fails to address oil drilling within the Preserve area.

The Habitat Authority did conduct CEQA analysis of its RMP. It prepared a Mitigated Negative Declaration (SCH # 2007051046). Both the RMP and the Mitigated Negative Declaration (MND) were prepared by LSA. LSA is listed on Matrix's website at http://www.matrixoil.com/partners (see **EXHIBIT D**) as one of Matrix Oil's nine "partners." Reproduced below in full is the MND's discussion of mineral resources.

MND's Discussion Of Mineral Resources:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	❑	❑	❑	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❑	❑	❑	■

OSLFD-3

Existing Setting:
According to the Los Angeles County General Plan, there is a known local mineral resource area within the Preserve boundaries. No known State-designated mineral resource areas have been identified within the Preserve. The area, however, has a long history of oil extraction and gravel quarry operations. The Whittier Oil Field was in operation up to the sale of the property to the City in 1995. Historic quarry operations in the Sycamore Canyon began in 1912.

Discussion:

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?*

No Impact. No mining is proposed and implementation of the RMP would have no affect on known mineral resources of local or Statewide significance. The RMP would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of California. Gravel operations ceased as a result of the availability of better quality materials from other areas adjacent to the San Gabriel River; and, oil production mostly ceased as a result of the high cost and difficulty of extracting the remaining oil from strata that had been mined since the early 20th Century.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. See Section X(a).

As can be seen from the discussion, the MND for the RMP totally fails to address potential and existing oil extraction within the Habitat Preserve. Similarly, the RMP completely fails to address existing Matrix activities within the Preserve or the potential threat of expanded oil or gas extraction activities, listing only habitat fragmentation, invasive plant species, urban edge effect, public use, erosion and existing fuels and fire hazard conditions as potential threats to the Preserve.

1.1.2 The City Failed to Conduct An Analysis To Determine Whether, Where and How Much Oil and Gas Extraction Should Be Allowed on City Prop A Land Within the Preserve

In 2006 Matrix Oil approached the City of Whittier with a proposal for oil drilling. Matrix was informed that the City would be required to go out to competitive bid prior to any lease of City lands.

On March 12, 2008 the Whittier Daily News published a Briefing on the "City's Negotiations to Consider the Extraction of Minerals From City Property" (http://www.whittierdailynews.com/ci_8546758 see EXHIBIT E). The briefing states:

> The City of Whittier has been actively researching ways in which our assets can best be utilized for the betterment of our residents. Protecting our water rights, assuring the viability of our landfill, and maximizing our economic base are all a part of this effort.
>
> We are now looking forward to see how we can continue to provide for the protection of our open space, while investigating the potential for the extraction of water, natural gas, and oil from the sub-surface formations under our hills. Recent technologies now permit the mining of these valuable assets without the damage and scarring of our property that was evident by the decades of surface abuse of our beautiful open space by the oil companies who historically operated in the Whittier Hills. This process allows for diagonal extraction of minerals through a slant drilling technology that can be accomplished by using less than half of 1% of our property to effectively mine the mineral rights the citizens of Whittier own below the surface of the hills. Over 1200 acres of minerals can be productively extracted through the use of only a few acres of facilities that can be shielded from sight and installed in a manner compatible with our sensitive Whittier ecosystems.
>
> We have embarked on a series of discussions with Matrix Oil, the predominant exploration company currently extracting minerals in the Whittier Hills. The purpose of our negotiations has been to determine the terms and conditions that would be necessary to allow for the continued surface use of our hills for the recreational enjoyment of our residents and the protection of the abundant wildlife that now make our Whittier Hills their home, with the potential for sub-surface mineral extraction of the water, gas, and oil that lie beneath the surface.
>
> We have instructed Matrix Oil to immediately fund a habitat study to be performed by LSA Associates to measure the current levels of animal and plant life in the hills so as to have a firm, verifiable benchmark of the health of our local ecosystem. This study will be done under the direct supervision of the Puente Hills Native Habitat Preservation Authority to assure its unbiased results. With these results in hand, it is our desire to develop an operations plan with Matrix

> that could then be subjected to a full Environmental Analysis by a qualified, independent expert. This expert would be hired by the City, but the costs would be fully paid by Matrix.
>
> If, and only if, it is determined that this co-existence can be appropriately designed to meet our goals of absolute open space protection and preservation, we could then consider the minimum drilling of test facilities to evaluate the potential for the extraction of these sub-surface minerals.

Preparation of an Environmental Impact Report (EIR) would have been the logical way for the City to determine whether "co-existence can be appropriately designed to meet (the City's) goals of absolute open space protection and preservation." However, the City failed to prepare an environmental document prior to its decision to lease land for oil production. Furthermore, the briefing clearly indicates that the City was working with Matrix to develop an operations plan prior to issuance of any request for bid.

In August 26, 2008 the City Council for the City of Whittier approved a Resolution of Intention to Lease Property for production of oil. Despite the fact that the decision to lease property is a discretionary action requiring CEQA review (CEQA Guidelines Section 15002), no CEQA analysis was conducted prior to the decision to go out to bid on the lease of 1,280 acres of Proposition A land. The staff report for the action does not recommend the taking of public testimony on the matter, or indicate that any public hearing on the August 26, 2008 resolution was conducted (see **EXHIBIT F**). Rather the staff report recommends the following actions, as reproduced below:

OSLDF-4

> **RECOMMENDATION**
>
> It is recommended the City Council:
>
> 1. Approve the Oil, Gas And Mineral Lease and other referenced documents for bidding in relation to a proposed Whittier Main 2008 Mineral Extraction Project;
> 2. Adopt the attached Resolution of intention to lease property for production of oil, gas and other hydrocarbons;
> 3. Authorize the City Manager to execute the Lease; and
> 4. Direct staff to publish the Resolution of intention as required by law and described in the Resolution.

In terms of public participation in the decision to issue a lease, the staff report fails to identify any formal public participation in the process of deciding whether or not to issue a lease, rather the staff report envisioned post-hoc public involvement in the review of an EIR for a decision largely taken, stating:

Public Involvement
The public will have multiple opportunities to be informed and to comment while the process unfolds. Already, the City Council has heard a staff report at its meeting on April 22, 2008 and a presentation by Mayor Pro Tem Bob Henderson on June 24, 2008. Information was posted on the City's web site to keep the public informed. Several front page articles appeared in the Whittier Daily News. The CEQA process including the preparation of an EIR will include multiple opportunities for public review and comment, as will the consideration of issuing a CUP. All through this process, there will be several government agencies which will have additional permitting and oversight authority to impose additional project requirements. For example, the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) has multiple regulations related to oil and natural gas exploration and production.

Both a public hearing, as required by Government Code Section 37380(b)(3) and notice as required by Government Section 6066, and a full CEQA analysis should have been conducted prior to the decision to go out to bid on a lease of public lands. There is no indication that the City council studied, reviewed or considered the following important factors, prior to approving the resolution issuing the bid request, or formulating the lease agreement:

- the maximum efficient rate for the oil field;
- the environmental consequences of reopening the oil field for production;
- the appropriate number and location, if any, of wells and drilling activity;
- how best to structure the bid and lease terms;
- how best to advertise the request for bid, and in what newspapers, so as to maximize the potential number of bid responses so as to maximize revenue from any lease;
- the impact of Proposition A on the feasibility of any oil extraction project or City revenue enhancement; or
- consultation with the County to determine if release of property purchased with Proposition A funds is feasible, and if so, what terms would be implemented by the County for property release.

The City thus failed to comply with CEQA when making the decision about whether or not to allow oil extraction activities within the Habitat Preserve on lands purchased in trust for the public with Proposition A funds, a decision with a clear potential to result in significant unavoidable environmental impacts.

1.2 FAILURE TO CONDUCT A COMPETITIVE BID PROCESS

After failing to conduct CEQA review, the City then appears to have failed to conduct a completive bid process. The City's decided to advertise its request for bid in only one paper, a paper with a limited localized circulation, the Whittier Daily News. In 2008 the Whittier Daily News ranked 14th out of the papers in the Los Angeles region, with a weekday circulation of
OSLDF-5 14,563 and a weekend circulation of 14,745. (See: http://www.cbjonline.com/a2labj/lists/2009-Newspapers.pdf) This decision to advertise only in the local paper resulted in a defacto sole

source request to Matrix Oil, an oil company located within the City, which had two years earlier approached the City with an oil and gas extraction project on City-owned land, and which the City had worked with in the development of an operations plan prior to issuance of the bid request (see **Section 1.1.2** of this letter). As a result Matrix was the only bidder and was awarded the contract at the City's October 28, 2008 City Council Meeting (see **Exhibit H**).

Thus clear evidence, set forth in the public record indicates that the City's intent was to do business with Matrix and therefore the City was not going to conduct a true competitive bid process in order to maximize potential revenues from the project.

1.3 FAILURE TO CONDUCT CEQA ANALYSIS PRIOR TO CONTRACT APPROVAL

Not only did the City fail to conduct CEQA analysis prior to the decision to allow for drilling within the Habitat Preserve or prior the decision to issue a bid request which specified key project characteristic, it similarly failed to conduct CEQA analysis prior to the next milestone in the process: Lease Agreement approval. The Lease Agreement contains key requirements, which affects the design and location of project features such as:

- The acreage to be leased – "1280 acres more or less."
- The number of sites and total site acreage for the first of the drilling projects allowed under the lease.
- OSLDF-6 The term of the lease, or rather the lack thereof.
- The limitation on the total amount of wells allowed within the project area, or rather the lack thereof.
- The limitation on the total amount of oil and gas extracted per day, per month, per year, or over the life of the project, or rather the lack of any such specification.
- Limitations on the location of extraction activities within the Habitat Preserve, or rather the lack of any such limitations.

1.4 RESULT IS POST HOC RATIONALIZATION

It is a general principle of CEQA that before conducting CEQA review, agencies must not take any action that significantly furthers a project in a manner that forecloses alternatives or mitigation measures that would ordinarily be part of CEQA review of that public project. However, this is exactly what the City has done in this case. As a practical matter, the City through the Lease Agreement committed itself to the project as a whole and to particular features, so as to effectively preclude alternatives or mitigation measures that CEQA would otherwise require to be considered, including the alternative of not going forward with the project.

The city thorough the Lease Agreement contracted away its power to consider the full range of alternatives and mitigation measures required by CEQA and precluded consideration of a "no project" option. In entering into the Lease Agreement with the oil companies, the City precluded its ability to reconsider the wisdom of the project in light of environmental effects.

OSLDF-7

Clearly the City reached a binding, detailed agreement with the oil company in the form of the Lease Agreement, and publicly committed resources and governmental prestige to the project before conducting CEQA review. The City's reservation of CEQA review until a later, CUP approval stage thus fails to comply with a number of key CEQA policies articulated in CEQA Guidelines Section 15003. The planning and environmental process and the DEIR clearly fail to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. The process does not serve to convince public observers that before committing itself to the project, the City fully considered the project's environmental consequences. Rather than a document of accountability, the EIR is a document of post hoc rationalization.

Not only is the EIR a clear example of post hoc rationalization, it is a bad example, as it fails to consider the whole of the action post hoc. The EIR is, therefore, also an example of piecemealed environmental review.

1.5 RESULT IS A PIECEMEALED PERMITTING PROCESS AND PROJECT

OSLDF-8

The net result of this faulty planning effort and violation of CEQA requirements is a piecemealed process and project. The inappropriate piecemealing of the project is discussed in **Section 3** of this letter. A number of the affects of this poor planning process and violation of CEQA requirements are discussed in **Sections 1.6 and 1.7** of this letter.

1.6 RESULT IS A LEASE AGREEMENT WHICH VIOLATES THE CITY CHARTER

Article 4 Section 418 of the Whittier City Charter holds as follows:

> "The City Council shall not have the power to make or authorize any contract or lease or extension thereof for a longer period than <u>twenty-five years</u> unless said contract, lease or extension be approved by <u>a majority of those qualified electors of the city voting on such question at any election</u>. A contract, lease or extension for a longer period shall be valid without such approval if it provides for the acquisition by the city at the end of such period of the real or personal property so leased or contracted for. This section shall not apply to any franchise granted pursuant to the provisions of this charter or to any contract for the furnishing or acquisition of the products, commodity or services of any public utility."

The Lease Agreement states the term of the lease as follows:

OSLDF-9

> 1. **Term**. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

The term set forth in the lease indicates that the lease remains in effect for an undetermined length, "so long thereafter as Lessee shall conduct development operations, (including without limitations, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities or the Leased Land." In essence this Lease can remain in full force and effect for a period in excess of 25 years—which is the true intent of the Whittier/Matrix Contract.

Given that the language provided in the Whittier/Matrix Lease which allows the lease to extend beyond 25 years, and the fact that no vote has been taken to extend the lease terms beyond 25 years, OSLDF has filed suit, arguing that Article 4 Section 418 of the Whittier Charter has been violated.

1.7 RESULT IS CONTRACT WHICH ENCOURAGES PUMPING MAXIMIZATION

OSLDF-10

Given the financial terms of the contract, and the contract terms discussed in **Section 3.1** of this letter, which tie the continuation of the contract to continued productions and drilling, the City has entered into a Lease Agreement which encourages both drilling and pumping maximization. In fact one of Matrix's objectives for the project, as stated on page ES-1 of the DEIR is to "(m)aximize oil and gas production from the field, thereby maximizing royalty payments to the City of Whittier." It also means that over time, Matrix has an incentive to place as many wells as possible within the oil field.

1.8 FAILURE TO ADDRESS COMMENTS RECEIVED DURING THE PUBLIC SCOPING PROCESS

CEQA Guidelines Sections 15082 and 15083 identify the scoping requirements for an EIR. Detailed comments on the scope of the DEIR were received by the Lead Agency in response to the Notice of Preparation (NOP) and are included in Appendix I of the DEIR. However, the DEIR largely ignores these comments and fails to respond and provide the requested information and analysis within the DEIR.

Section 15123 of the CEQA Guidelines requires that the Summary section of the EIR include a discussion of "areas of controversy known to the Lead Agency including issues raised by agencies and the public." The Summary of the EIR fails to identify the issues raised during the scoping process by the public and reviewing agencies contained in Appendix I, and is thus inadequate.

OSLDF-11

The DEIR largely ignores the information and analytic requests included in the comment letters on the Notice of Preparation. Because the Lead Agency conducted scoping, but ignored the results, the comment letters received on the Notice of Preparation for the EIR those letters are incorporated herein by reference and are included in **Exhibit A** of this comment letter. Detailed responses to each of the substantive comments provided in those comment letters and that they are treated as comments on the DEIR is hereby requested.

2.0 FATALLY FLAWED PROJECT AND PROJECT DESCRIPTION

The project description included in the DEIR is incomplete, understates the magnitude of the project, and describes a project which is infeasible because it violates the terms of the Lease Agreement and Proposition A.

In addition, the project described in the DEIR is a clear violation of CEQA Guidelines Section 15378 which require analysis of the whole of an action. As discussed more fully in **Section 3** of this letter, a lead agency must fully analyze the whole of a project in a single environmental review document and may not piecemeal or split a project into pieces for purposes of analysis. The Lease Agreement between the City and the oil companies is a key component of the project description and should be included in an appendix to the DEIR. The DEIR fails to describe or analyze the whole of the actions and the full scope of the activities potentially allowed under the Lease Agreement. The DEIR is thus fatally flawed and so fundamentally and basically inadequate that meaningful public review and comment are precluded.

2.1 PROPOSED PROJECT VIOLATES CONTRACT TERMS

Paragraph 1 of the Lease Agreement between the City of Whittier, Matrix Oil and Clayton Williams Energy, Inc. dated October 28, 2008 (see **EXHIBIT G**), reproduced below, specifies that the Lessee must submit a complete application for issuance of a Conditional Use Permit as provided for in Paragraph 6.1 of the lease agreement, within one hundred eighty days from the date of the Lease, i.e. by April 26, 2009 and that the application be consistent with Paragraph 6.1 of the Lease agreement:

> 1. **Term**. The term of this Lease shall be three (3) years from and after the date hereof ("Primary Term") and so long thereafter as Lessee shall conduct development operations (including, without limitation, drilling, redrilling, deepening, repairing and reworking) or production is maintained in paying quantities on the Leased Land or on lands pooled or unitized therewith without cessation for more than one hundred eighty (180) consecutive days, or such operations are suspended or excused as hereinafter provided. Notwithstanding the foregoing, this Lease shall terminate if Lessee fails to submit a complete application for the issuance of a Conditional Use Permit as provided for in Paragraph 6.1., hereof, within a period of one hundred eighty days from the date of this Lease.

OSLFD-12

The applicant submitted a Conditional Use Permit application on April 24, 2009. However, neither the project described in the Conditional Use Permit application nor the DEIR are consistent with the requirements of Paragraph 6.1 of the Lease Agreement.

Paragraph 6.1 of the Lease Agreement, reproduced below, specifies that the application be "for up to three drill and well sites, for use for drilling <u>and production support facilities</u>

including wastewater reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes":

> 6.1. **No Surface Entry Unless and Until Conditional Use Permit Obtained and CEQA Complied With**. Lessee shall not be entitled to make any surface entry on the Leased Land (other than for visual inspection or surveying purposes in support of an application for a Conditional Use Permit) unless and until: (i) a Conditional Use Permit has been applied for at the City of Whittier for up to three drill and well sites, for use for drilling and production support facilities including waste water reinjection, of not more than 7 acres in total, combined size and in reasonably compact shape and routes of ingress and egress thereto and for pipeline and utility purposes and, if desired by Lessee, for the conduct of a seismic survey, (ii) environmental review under the California Environmental Quality Act ("CEQA") has been conducted and paid for by Lessee, (iii) a Conditional Use Permit has been issued by the City of Whittier, in its sole and absolute discretion; and accepted in writing by Lessee within a period of ten (10) days of the date of its issuance, and (iv) no Conditional Use Permit will be issued by the City of Whittier until Lessor has obtained a release from protected area status of that portion of the Leased Land upon which surface operations are allowed under an issued Conditional Use Permit from the Los Angeles County Proposition A District. The terms and conditions of any Conditional Use Permit which may be issued by the City of Whittier, including any mitigation measures and monitoring plans which may arise in the cause of any CEQA review thereunder, shall be deemed incorporated into this Lease as terms and conditions thereof.

Since Matrix has not complied with the requirements of Paragraphs 1 and 6.1 of the Lease Agreement, as detailed in **Sections 2.1.1 and 2.1.2** of this letter, the City arguably has a duty to terminate the Lease Agreement.

2.1.1 Number of Sites Violates the Lease Provisions

As exemplified brilliantly by George Orwell in *1984*, black is not white, war is not peace, and five is not three, no matter how many times one pretends that it is.

2.1.1.1 Project Described in the Conditional Use Permit Violates the Lease Provisions Regarding Number of Sites

The project described in the Conditional Use Permit application, which is incorporated herein by reference, is shown on four plan sheets included in the application: 4202-000-1001, 4202-000-1002, 4202-000-1003, and 4202-000-1004 (see **EXHIBIT I**). In addition, plan sheet 4202-000-1002 shows the non-contiguous Central Well Pad and Process Area Sites. The application thus provides for five well and associated production support sites. The project included in the Conditional Use Permit application is thus clearly inconsistent with the three-site maximum included in the Lease Agreement.

OSLDF-13

2.1.1.2 Project Described in the DEIR Violates the Lease Provisions Regarding Number of Sites

In addition, the proposed project analyzed in the DEIR similarly contains more development sites than allowed under the Lease Agreement. It is clear from an examination of **DEIR Figure ES-2**, reproduced on the following page, Figure 2-6 of the DEIR, and the plans contained in DEIR Appendix A-Project Description Design Data, that the proposed project includes five development sites, not three. Although the East Well Site (Appendix A – Sheet FD-1018 – East Well Pad) and the West Well Site (Appendix A – Sheet FD-1012 – West Well Pad) each consist of one site, the Central Site is in fact three separate sites (Appendix A – Sheets FD-1014 – Processing Pad, FD-1015 – Well Pad, and FD-1020 – Truck Loading). A project with five non-contiguous development sites for well pads and production support facilities (i.e. processing and truck loading), is inconsistent with the terms of the Lease. The Lease does not provide for separate production and truck loading sites.

2.1.2 Project Acreage Violates the Lease Provisions

As we have similarly learned from George Orwell, at least 12.1 acres is not 7 acres, no matter how many times one pretends that it is.

2.1.2.1 Project Described in the Conditional Use Permit Violates the Lease Provisions Regarding Maximum Acreage

Paragraph 6.1 of the lease agreement specifies "up to three drill and well sites, for use for drilling and production support facilities including wastewater reinjection, of not more than 7 acres in total." The narrative of the application for the Conditional Use Permit application, reproduced below, is not very precise about the acreage of the proposed project, however it does state:

> When the Project is fully developed, the well cellars, together with the Oil Processing and Gas Plant will be physically located at three different locations, referred to as "sites". All three sites will be located within the Whittier Main Field. These sites are to be known as the West Site, consisting of 1.0 to 1.5 acres, the Central Site consisting of 4.0 to 5.0 acres, and the East Site consisting of 1.0 to 1.5 acres. The total area required for the three sites will be approximately 7.0 acres. In addition, a crude oil truck loading facility will be located adjacent to Colima Road. Roads, pipelines and electrical conduit corridors, called the "backbone", will be constructed to connect the three production sites and the oil truck loading facility to the Central Site facilities. Electrical and pipeline interconnections will be made to the Southern California Edison grid, the Southern California Gas Company pipeline and the Suburban Water District system

Figure ES-2 Proposed Project Sites

Source: Matrix Application 2009 and subsequent submittals

DEIR FIGURE ES-2

Thus according to the narrative of the Conditional Use application, the proposed project, exclusive of the crude oil truck loading facility, is between 6 and 8 acres in size.

As summarized in **Table 1** which follows, the Conditional Use Permit application contains a set of plans for the proposed project. (See **Exhibit I**). Plan Sheet 4202-000-1003 for the East Well Pad indicates that the portion of well pad and tank area within the fenceline is 1.1 acres (48,110 square feet), but that the overall disturbed area is 2.4 acres (103,970 square feet). Plan Sheet 4202-000-1001 for the West Well Pad indicates that the portion of the well pad and tank area within the fenceline is 1.1 acres (48,080 square feet), but that the overall disturbed area is 2.0 acres (85,890 square feet). Plan Sheet 4202-000-1002 for the Central Well Pad and Processing sites shows: that the well pad and tank area within the fenceline is 1.3 acre (58,070), but that the overall disturbed area is 2.3 acres (98,445 sf); and, that area of the processing area and gas plant inside the fenceline is 2.85 acres (123,930 sf), but that the overall disturbed area is 3.7 acres (161,920) sf. The site and disturbed area acreage and square footage are not provided on Plan Sheet 4202-000-1004 for the Truck Loading Facility, although the truck loading facility is clearly a key component of the production facility.

OSLFD-14

TABLE 1
CONDITIONAL USE PERMIT APPLICATION ACREAGE

LOCATION	**Pad and Tank Areas Within Fencing**		**Disturbed Area**	
	Acres Listed	Square Feet	Acres Listed	Square Feet
East Well Site	1.1	48,110	2.4	103970
West Well Site	1.1	48,080	2.0	85,890
Central Well Site				
Well Site	1.3	58,070	2.3	98,445
Processing Site	2.85	123,930	3.7	161,920
Truck Loading Site	Not Provided	Not Provided	Not Provided	Not Provided
TOTAL "SITES" WITHOUT TRUCK LOADING SITE	**6.35**	**278,190**	**10.4**	**450,225**

Source: Matrix Oil Conditional User Permit Plan Sheets

The project plans included in the Conditional Use Application thus indicate that if only the well pad, tank areas and gas plant and processing area included within the fenceline are counted, exclusive of the truck loading site, the project site area is 6.35 acres in size. However, if the full area of each site is counted, exclusive of the truck loading area, the disturbed area is 10.4 acres in size, clearly more than allowed for under the Lease Agreement.

Furthermore, neither the project plans nor the disturbed area calculations included in the Conditional Use Permit Application appear to include the area that would be disturbed by fuel modification requirements, and are therefore underestimates of the facilities acreage. As noted on DEIR page 4.12-4, the project site is within an area designated as a very high fire

severity zone for wildfire. In accordance with Public Resources Code (PRC) Section 4291 the project would be required to maintain defensible space for 100 feet from structures. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. Furthermore, Matrix has indicated that "all sites will have a buffer of 50-feet or more of cleared brush from fences or perimeter walls" (see http://whittieroil.com/environment-technology in **Exhibit J**). The acreage of fuel modification should be included in the site calculation, as it is a site requirement.

2.1.2.1 Project Described in the DEIR Violates the Lease Provisions for Site Acreage

Table 2-3 of the DEIR provides an acreage number which is slightly different than the Conditional Use Permit Application. DEIR Table 2-3 shows a total of 6.0 acres for pad areas within the fenceline but the same 10.4 acres of disturbed area, as shown on the project plans included in the Conditional Use Permit application, exclusive of the truck loading site, as shown below.

However, if the truck loading site is properly included in the site acreage, the well and production support sites are greater than seven acres in size, as shown in Table 2-3 of the DEIR, which provides the following information.

TABLE 2
SITES ARE FROM DEIR TABLE 2-3

LOCATION	CONSTRUCTION Disturbed Area (acres)	OPERATIONS Facility Area (acres)
East Well Site	2.4	1.1
West Well Site	2.0	1.1
Central Well Site		
Well Site	2.3	1.3
Processing Site	3.7	2.5
Truck Loading Site	1.7	1.1
TOTAL "SITES"	**12.1**	**7.1**

Source: Table 2-3 of the DEIR

The 7.1 acres of operational area and 12.1 acres of disturbed area is thus in violation of the 7 acre size limit within the Lease Agreement. Both the Conditional Use Permit application and Table 2-3 of the DEIR attempt to disguise the fact that the operational area is greater than 7 acres, by putting the truck loading area under the category of "other areas", rather than including it in the "sites" calculation as shown in DEIR Table 2-3 reproduced on the following page.

The notes on DEIR Table 2-3 indicate that the operational acreage calculation is based on "pad areas within the fence line that would be developed at each location to support the proposed facilities," similar to the method of calculation used on the site plans in the Conditional Use Permit application.

OSLFD-15

Furthermore, neither the project plans nor the disturbed area calculations included in DEIR for the sites, appear to include the area that would be disturbed by fuel modification requirements, and are therefore underestimates of the facilities acreage. As noted on DEIR page 4.12-4, the project site is within an area designated as a very high fire severity zone for wildfire. In accordance with Public Resources Code (PRC) Section 4291 the project would be required to maintain defensible space for 100 feet from structures. The intensity of fuels management may vary within the 100-foot perimeter of the structure, the most intense being within the first 30 feet around the structure. The project plans included in Appendix A of the DEIR generally show a 20 foot fuel modification zone, which is inconsistent with State law, the RMP and representations made by Matrix on its website regarding its intent to provide "a buffer of 50 feet or more of cleared brush from fences or perimeter walls" (see Exhibit J).

DEIR TABLE 2-3

Table 2-3 Project Disturbed and Facility Areas

Location	Construction Disturbed Area (acres)	Operations Facility Area (acres)
Sites		
East Well Site	2.4	1.1
West Well Site	2.0	1.1
Central Well Site	2.3	1.3
Central Processing Site	3.7	2.5
Total Sites	10.4	6.0
Other Areas		
Truck Loading	1.7	1.1
New Access Road	3.4	1.4
Total Other Areas	5.1	2.5
Temporary Construction Staging and Parking Areas	4.1	-

Notes: All pipelines would be within existing or proposed roadways.
The operations facility acres numbers represent the pad areas within the fence line that would be developed at each location to support the proposed facilities.
The disturbed area is the total area disturbed during construction to construct the operations facility areas and includes the permanent facility area.
Source: Matrix Application Data Request #1 and subsequent submittals

The numbers in Table 2-3 and the site plans should be corrected to properly include all production support facilities in the site acreage calculation and to show all areas within the full boundary of the sites, including the area for fuel modification, pursuant to fire department requirements and state law.

As noted on DEIR page 4.12-17, "detailed design drawings are not yet available for the Project." What little that is available in the way of project plans are not included in the body of the DEIR, but instead is hidden in DEIR Appendix A. In addition, DEIR Appendix A appears to include only site plans for the project once all wells are drilled and the project is in full operation. The DEIR fails to provide plans showing the location of key components during all of
OSLFD-16 the phases of the project listed in DEIR Figure 2-10, including: the drilling and testing phase (months 1-8), the design and construction phase (months 9-38), drilling (beginning month 39

with five years duration), and where equipment will be stored during the well redrills and workovers which begin in month 39 and are continuous throughout the remaining life of the oil extraction activities. The project plans also fail to show the location of worker parking and equipment storage, which are part and parcel of any production support facilities. It is likely that once these uses are shown on the project plans, the site acreage will be still greater.

OSLFD-17 Table 2-3 of the DEIR includes 4.1 acres of temporary construction staging and parking areas. Given that the project requires eight years for construction and drilling, this additional 4.1 acres are hardly temporary, further adding to the disturbed acreage associated with the project, increasing it still further to 16.2 acres, exclusive of new access roads. There is a big difference between 16.2 acres for well and production facilities and the 7 acre maximum specified in the Lease Agreement.

OSLFD-18 Furthermore, Table 2.3 includes a category called "total other areas" which is not defined. It is unclear whether this is a subtotal, which fails to capture temporary construction staging and parking area, or additional area This needs to be clearly defined in the DEIR and any "other areas" that are part of the production support facilities must be included in site calculation. The "total other area" is 5.1 acres in size during construction and 2.5 areas in size during operations, bringing the site acreage, exclusive of new access roads and temporary construction staging and parking areas potentially to 9.6 acres for facilities operation and 21.3 disturbed acres. The EIR needs to explain what these other areas are. Given that the bermed basins for wastewater storage and for the drilling mud are not shown on the project plans, and are properly considered production support facilities, they should be included in the total site acreage provided in DEIR Table 2.3 and shown on the project plans. Detention basins should be similarly included.

OSLFD-19 The project plans included in Appendix A of the DEIR show only the access road connecting the east well site and the truck loading site. DEIR Table 2-3 includes only the new access road and lists 1.4 new roadway acres during operation and 3.4 disturbed acres during construction. Given that the roadway is 20 feet wide and 0.5 miles in length, the calculation of 1.4 acres does not appear to include the required fuel modification which would be required along the roadway length, in the calculation of acres disturbed during operation as a result of the roadway. The acreage disturbed during construction also appears to be understated. The acreage figures for the new access road need to be corrected on DEIR Table 2-3.

OSLFD-20 No access road to the West Well Site, the Central Well Site or the Central Processing site is shown on DEIR Figure ES-2 or on the plans included in DEIR Appendix A, although the Executive Summary of the DEIR indicates theses sites will be served via Catalina Avenue. Catalina Avenue is currently a poorly maintained dirt roadway which would require improvement in order to be useable for construction and operation of the Central Well and Production sites, and the West Well Site, and for emergency access. In fact, Mitigation Measure T-1e requires the widening of Catalina Avenue north of Mar Vista Street. The Project Description included in the DEIR needs to describe the improvements to Catalina Avenue necessary to serve the project. In addition, the DEIR needs to specify whether Catalina Avenue

will be a graded dirt road requiring annual maintenance, or if it will be paved, and needs to demonstrate that the roadway configuration is acceptable to the Fire Department.

OSLFD-21 The acreage associated with improvement of Catalina Avenue to serve the proposed project does not appear to have been considered or estimated in DEIR Table 2-3, or included in the analysis of project impacts or the analysis of grading, and cut and fill contained in the DEIR. Based on Mitigation Measure T-1e, a wider radius for turns needs to be provided at the northeast corner of Catalina Avenue, and Catalina Avenue north of Mar Vista needs to be improved by widening the east side of Catalina north of Mar Vista to provide additional truck capacity. This additional acreage of construction needs to be accounted for in the calculation of area disturbed by the project. Any calculation of acreage disturbed needs to include how access to all well and production sites will be provided during construction and operations. DEIR Table 2-3 needs to itemize the full area of impact of the proposed project. Even without the needed correction, DEIR Table 2-3 appears to includes 24.7 acres of disturbed area during construction and 11 acres during operations.

OSLFD-22 In addition, the project plans do not show the limits of the area restricted from public access. Given that this is an open space and recreational area, the project description should include a map and acreage calculation for the full area removed from public use and open space.

OSLFD-23 A full set of detailed plans for all phases of the proposed project must be included in the EIR. In addition, the DEIR should provide site acreage calculations for each phase of the project, including the combined acreage for all drilling and production support facilities, disturbed areas and fuel modification zones for each stage of the project, and a map showing the extent and acreage of area lost to the public.

OSLFD-24 Given that the first phase of the proposed project clearly involves more than 7 acres, a search and replace of the DEIR needs to be conducted to correct statement such as the following on DEIR page 4.2-1 which substantially understate the area encompassed by the proposed project: the "proposed Project would involve drilling wells and producing oil and gas from the Project Site, which encompasses approximately 7 acres." It is clear that the Project Site is the 1,280 acres which have been leased for oil and gas extraction, and that the first phase project encompasses far more than 7 acres. Both the analysis and the text of the document need to be corrected accordingly.

2.1.3 Failure to Identify Violation of Lease Terms Results in Underestimate of Impacts

OSLDF-25 The City has opted to prepare a project level EIR after failing to prepare a plan-level EIR to evaluate the advisability of the discretionary decision to issue a Lease. In the absence of detailed project plans, a full and complete analysis of the impacts of the project as a whole and this phase of the project is not possible. The lack of detail in the phase 1 project plans and the understatement and omissions from the project description and acreage calculations results in a DEIR which understates phase 1 project impacts. The project description included in the DEIR is therefore inadequate. However, even in the absence of these necessary additions to the DEIR, it is clear that the project as proposed violates the acreage and site number restrictions contained

in the Lease Agreement. In keeping with the Term and Paragraph 6.1 of the Lease Agreement, the City appears obligated to terminate the Lease.

2.2 THE DEIR IS FATALLY FLAWED BECAUSE IT IS FOCUSED ON THE ANALYSIS OF AN INFEASIBLE PROJECT

The DEIR wastes the public's time by spending hundreds of pages analyzing a project which does not meet the terms of the Lease Agreement and is therefore infeasible, while providing a very brief analysis of the Consolidated Central Site alternative, which appears to be the defacto project. In fact, Matrix Oil has recently indicated its support for the Consolidated Site Alternative.

(See http://www.globenewswire.com/newsroom/news.html?d=205961&topic=16)

In addition, the City's lobbist, Esther Feldman on page 1 of her sworn declaration dated December 16, 2010 in case BS128995, reproduced below, describes the proposed project as:

> 2. The proposed Whittier Mineral Extraction Project (Project) would be on approximately seven of 1,290 acres of the Puente Hills Landfill Native Habitat Preserve (Preserve). The Project would use horizontal drilling technology to extract oil and gas from underneath these 1,290 acres, which comprise the Whittier Main oil field, and would use an existing road connecting to the City's Savage Canyon Landfill for access to the Project site. These former oil drilling lands were purchased in 1995 from Chevron and Unocal by the City of Whittier (City) with funds from the L.A. County Park and Open Space Act of 1992 (Proposition A) for preservation of natural lands and open space. These former oil drilling lands have many unmet restoration needs, and the City has been working to effect restoration of natural habitat when feasible. Matrix Oil Corporation has a Conditional Use Proposal before the City for the Project. The Project elements on the Preserve would include drilling and operating of up to 60 underground wells and constructing related oil and gas processing facilities on the seven acre site, installing an underground pipeline and improving the Landfill Road.

The City's lobbyist in her sworn declaration thus describes the Consolidated Central Site Alternative with the Landfill Road Access, not the proposed project analyzed in the DEIR, as the Proposed Project.

Like Ms. Feldman, AECOM Technical Services, Inc. the preparers of the August 6, 2010 *Socioeconomic Analysis for the Whittier Main Oil Field Development Project*, contained in Appendix H of the DEIR also appear to have been operating on the assumption that the Consolidated Central Site Alternative with the Landfill Road Access was the real project. This is

evident from the figures in the study which show the area of key impacts, such as Figure 33 from DEIR Appendix H, which is reproduced below. This figure clearly shows noise impacts along the Landfill Road Access alignment. Apparently it is only the public who is being deceived as to the real project under consideration.

Figure 33: Noise Impact Area (Drilling and Operations)

OSLDF-26

Note: AV = Residential Properties Only.
Source: MRS; Los Angeles County Assessor Parcel Data (2009)

It is thus clear that not only is the EIR a case of post hoc rationalization for the Lease Agreement, but it is also a case of post hoc rationalization for a first phase project (Consolidated Central Site Alternative with the Landfill Road Access) disguised as an alternative.

If CEQA Guidelines Section 15126.6 requires analysis of a range of reasonable alternatives which would <u>feasibly</u> attain most of the basic objectives of the project, analysis of a

proposed project which is infeasible, and therefore inconsistent with the most basic project objective, surely is a violation of CEQA.

The DEIR's analysis of a proposed project, which does not meet the terms of the Lease Agreement, is a clear example of bate-and-switch. The DEIR bates the public and reviewing agencies with an infeasible proposed project and wastes their time and energy reviewing hundreds of pages of analysis of a proposed phase 1 project, which the City can not approve. The DEIR then provides only the most limited and conclusionary analysis of the Consolidated Center Site Alternative with Landfill Road Access, which is the defacto project, in an attempt to make the public grateful for a phase 1 "alternative" project with 6-8 identified Unavoidable Significant Adverse Impacts, because this is less than the 13-15 Significant Unavoidable Impacts of the infeasible straw-dog proposed phase 1 project. The net result is both a wholly inadequate analysis of the actual proposed project (the Consolidated Central Site Alternative) and an EIR which fails to analyze a "range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effect of the project" as required by CEQA Guidelines Section 15126.6. The DEIR is thus fatally flawed.

2.3 PROPOSED PROJECT AND THE ALTERNATIVES VIOLATE PROPOSITION A, AND PROPOSITION A MAKES BOTH THE PROJECT AND THE ALTERNATIVES INCONSISTENT WITH THE CITY'S OBJECTIVES.

Section 16(b) of the authorizing statute under Proposition A specifies as follows:

> (b) If the use of the property acquired through grants pursuant to this order is changed to one other than a use permitted under the category from which the funds were provided, or the property is sold or otherwise disposed of, an amount equal to the (1) amount of the grant, (2) the fair market value of the real property, or (3) the proceeds from the portion of such property acquired, developed, improved, rehabilitated or restored with the grant, whichever is greater, shall be used by the recipient, subject to subdivision a of this Section, for a purpose authorized in that category or shall be reimbursed to the Parks Fund and be available for appropriation only for a use authorized in that category.

The DEIR at page 2-1 states that:

> The City's purchase of the Whittier Main Oilfield was funded by a grant of Proposition A funds. Conditions of this funding prevent the City from using the land for anything other than open space. In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or to provide a comparable area of land that can be used for open space.

This statement on DEIR page 2-1 is invalid for a number of reasons and needs to be corrected. First, Section 16(b) requires the greater of the three specified options. Second, as detailed in the above paragraphs of in this letter in **Section 2.1.2.1- Project Described in the DEIR Violates the Lease Provisions for Site Acreage,** the proposed project uses far more than the assumed 7 acres of the land purchased with Proposition A Funds. The analysis in the DEIR consistently and inappropriately refers to 7 acres because this the maximum amount of project acreage allowed by the Lease Agreement. However, the proposed project is actually far larger in disturbed area than what is allowed under the Lease Agreement. Even without the needed corrections to impacted acreage specified in **Section 2.1.2.1 - Project Described in the DEIR Violates the Lease Provisions for Site Acreage** set forth above in this letter**,** Table 2-3 in the DEIR indicates that the proposed project will disturb 11 acres during operation and 24.7 acres during construction which will take up to eight years. Third, the amount of public open space which would be lost to the public is far more than the acreage disturbed by the proposed project. Fourth, per the second (unnumbered) paragraph of the Lease Agreement, the lease is for 1,280 acres, more or less. Reimbursement or compensation for only 7 acres or for the area disturbed, or for the area removed from public open space, or for the number of acres leased, or anything short of the full amount of the lease value would, therefore, not adequately address the violation of the Proposition A conditions of purchase, and would result in a **Significant Unavoidable Proposition A Consistency Impact**. The DEIR needs to be corrected to properly explain the Proposition A requirements and consequences in Chapter 2 - Project Description, Section 4.11 – Land Use and Policy Consistency Analysis and the Executive Summary of the DEIR. (See also discussion in **Sections 3.2 -Proposition A Offset – Fails to Identify the Amount or Nature of Prop A Compensation** of this letter).

OSLDF-27

Since the City should be required to reimburse the full revenue stream from the proposed project, and any use of the revenue would be limited to Proposition A uses as specified in Section 16(a) of the authorizing statute under Proposition A, the City's objective of generating a substantial, long-term income stream for the City can not be met. This would also be true for the alternatives. The net result of the project and the alternatives would be the loss of public open space within the City and the transfer of the value of the 1,280 acres of open space to Proposition A uses somewhere else in the County. The Executive Summary, Chapter 2-Project Description, Section 4-11 – Land Use and Policy Consistency, and Chapter 6 – Comparison of Proposed Project and Alternatives of the EIR need to include a discussion of this fact.

Furthermore, as detailed in Open Space Legal Defense Fund v. City of Whittier et al., reimbursement for 7 acres as described in the DEIR would be a violation of the Public Trust Doctrine which would also be a **Significant Unavoidable Land Use Policy Impact** of the project as proposed.

The fact that neither the project nor any of the alternatives meet the City's objectives is yet another reason why the City should terminate the Lease Agreement.

2.4 FAILURE TO ADEQUATELY DESCRIBE PROJECT FEATURES OR PHASES – FEATURES NOT SHOWN ON PROJECT PLANS OR ADEQUATELY DESCRIBED

In addition to describing and analyzing an infeasible project, the analysis in the DEIR is inadequate because it does not fully address the following project features.

2.4.1 Project Site

OSLDF-28 The DEIR is fatally flawed because it assumes that the west, east and central sites constitute the project site and thus fails to address impacts to the full project site: the 1,280 acres leased.

2.4.2 Project Wells

OSLDF-29 DEIR Section 2.3.3.1 described the drilling activities. DEIR page 2-15 indicates that wells would be drilled to a vertical depth of between 3,000 and 10,000 feet and DEIR Figures ES-2 and 2-6 indicate the general locations from which the wells would be drilled. The DEIR also indicates that slant drilling will be used. However, the DEIR lacks any description of where, subsurface, the wells would be located and how the 20 wells per pad would branch out within the 1,280 leased area. In the absence of such a description and the ability to compare the subsurface location of wells with geological conditions, including faulting in the area, the potential for **Significant Unavoidable seismic safety and hazards Impacts** remains.

2.4.3 Detention Basins

OSLDF-30 The DEIR fails to identify the location or size of the detention basins. Mitigation Measures WR-3c and WR-3 indicate that a drainage plan has yet to be prepared for the proposed phase 1 project and the detention basins have yet to be designed, sized or located. These mitigation measures are clear examples of improperly deferred mitigation. These basins will add to the area disturbed by the proposed project and the area of the five sites. The lack of information regarding the location and design of the basins also results in improperly deferred analysis.

2.4.4 Mud Pits and Wastewater Storage

OSLDF-31 Page 2-16 of the DEIR states that as "a byproduct of drilling operations, a liquid slurry of drilling "mud" would be collected onsite within bermed basins that are protected by impermeable membranes" and that "approximately 1,800 barrels of this mud would be collected for each well drilled." See also DEIR page 2-35 and 2-36. The DEIR fails to identify the location and size of these bermed basins.

OSLDF-32 DEIR Page 2-20 indicates that all wastewater generated during construction would be stored onsite within bermed basins, protected by an impermeable membrane. The DEIR fails to identify the location and size of these bermed basins.

2.4.5 Roadway Design

Page ES-4 of the DEIR states that a new access road to the Central Site would be constructed from Colima Road. The project plans included in Appendix A of the DEIR show only the access road connecting the east well site and the truck loading site.

No access road to the West Well Site, the Central Well Site or the Central Processing site is shown on DEIR Figure ES-2 or on the plans included in DEIR Appendix A. How will construction, operational and emergency access be provided to these sites? The Project Description simply says, on page ES-4 that the "Project would utilize approximately 1.1 miles of existing roads within the Preserve and would construct 0.5 miles of new roadways within the Preserve to access the various sites."

OSLDF-33 The DEIR appears to indicate that access to the Central and West Wells sites will be from the existing dirt road which is an extension of Catalina Avenue. No plans for this access road are provided and there is no discussion of the grading and improvements necessary to provide adequate construction, operational and emergency vehicle access. There is no discussion of whether the existing culvert under Catalina Avenue, and culvert and roadway design, is adequate to accommodate the heavy equipment which will be using this roadway. There is no discussion of the amount of cut and fill necessary to provide for adequate roadway width, grading and fuel modification.

The DEIR should also include the roadway profile and a description of roadway grade. The location of all shoring, retaining walls, turnouts, the double-box culvert and pipe-bridge across the creek and roadway grade should be provided in the project description. The description of the new access road and Catalina Avenue access fails to indicate the width of the roadway and required fuel modification. All of this information needs to be clearly included in the project description and the potential impacts of all site access needs to be addressed in the DEIR. It is clear that this has not been done.

2.4.6 Limits of Grading

OSLDF-34 The project plans fail to clearly indicate the limits of grading for all phases and all components of the project.

2.4.7 Fuel Modification

Matrix's website at http://whittieroil.com/environment-technology (see **Exhibit J**) states that all sites will have 50 feet or more of cleared brush from fences or perimeter walls, yet this is not reflected on the project plans or in the impact calculations. As discussed more fully in **Section 2.1.2.1 - Project Described in the Conditional Use Permit Violates the Lease Provisions Regarding Maximum Acreage** of this letter, the project plans need to show fuel modification consistent with the requirements included in the RMP for the Preserve, State law, or by the Fire Department, which ever is greater.

OSLDF-35

2.4.8 Equipment Storage and Parking

OSLDF-36

Page 2-17 of the DEIR indicates that during test drilling, drilling equipment would be delivered to the site initially, would remain at the site until the end of drilling and then be removed. Page 2-17 also listed additional equipment and workers that would be on-site during this phase. The DEIR needs to list the number and types of vehicles anticipated to be parked on site, as well as any other equipment to be stored on site, for each phase of the project, and to provide project plans which show the areas where construction, maintenance and worker vehicles will be parked and equipment will be stored for each phase of the project.

2.4.9 Well Abandonment and Restoration

OSLDF-37

The DEIR ignores, and the project description fails to address a key phase of the project: the conclusion. The DEIR must address and analyze all phases of the project, including the adequacy of well abandonment and restoration plans. The DEIR fails to do this.

2.4.10 Transmission Pipeline

OSLDF-38

The DEIR at page 2-23 indicates that "gas and crude pipelines would be built to connect the proposed Project Site to the high-pressure natural gas pipeline that runs along Lambert Road and the crude pipeline that runs along Leffingwell Avenue." The DEIR fails to describe the full oil and gas distribution system for the oil and gas to be produced under the Lease Agreement, and the first phase of the project as proposed, including the size, age, total and remaining capacity, and routing to final destination.

2.4.11 Odor Minimization Plan and Air Monitoring Plan

OSLDF-39

Mitigation Measure AQ-3c requires preparation of an Odor Minimization Plan and Measure AQ-3d requires preparation of an Air Monitoring Plan. Both plans should have been provided in the DEIR to allow the public and reviewing agencies to comment on the adequacy of the plans. In the absence of public/agency review of the plans, their efficacy in reducing impacts can not be assessed and the potential for unmitigated air quality and odor impacts remains. An Odor Minimization Plan and an Air Monitoring Plan must be prepared and included in an appendix to the DEIR, and the DEIR must be recirculated for review and public comment. Failure to do so is a violation of CEQA.

2.4.12 Relocated Ranger Residence

OSLDF-40

The DEIR fails to identify or analyze impacts associated with the relocation of the ranger residence required by Mitigation Measure N-1c in order to avoid significant noise, vibration and safety risks at the existing residence under the proposed phase 1 project. The DEIR needs to indicate if a new residence would be constructed within the Habitat Preserve and analyze any impacts associated with the new residence.

2.4.13 Noise Reduction Plan and Noise Reduction Measures

OSLDF-41

The DEIR improperly defers analysis of the project by an acoustic consultant and the specification of noise measures pursuant to Mitigation Measures N-2a and N-4. As written, even before proper analysis, these mitigation measures require installing a secondary 16-foot tall sound wall on the south and east sides of the gas processing plant and enclosing the drill rig area in soundproof barriers 30-feet high on all sides. These measures need to be included on the project plans and considered in the calculation of the area of impact and phase 1 project impacts.

2.4.14 Habitat Conservation Plan

OSLDF-42

According to Mitigation Measure Bio-1d an Incidental Take Permit is required for the proposed project. An Incidental Take Permit requires a Habitat Conservation Plan (HCP) and public review period. The project description is inadequate because it does not include a Habitat Conservation Plan. This is another example of improperly deferred mitigation. A HCP must be prepared and included in an appendix to the DEIR and the DEIR recirculated for review and public comment. Failure to do so is a violation of CEQA.

3.0 THE DEIR FAILS TO DESCRIBE OR ANALYZE THE WHOLE OF THE ACTION

CEQA Guidelines Section 15126 requires that: "All phases of a project must be considered when evaluating the impact on the environment: planning, acquisition, development and operation." PRC Section 21159.27 prohibits the piecemealing of a project. CEQA Guidelines Section 15165 requires that:

> **15165. MULTIPLE AND PHASED PROJECTS**
>
> Where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168. Where an individual project is a necessary precedent for action on a larger project, or commits the Lead Agency to a larger project, with significant environmental effect, an EIR must address itself to the scope of the larger project. Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency may prepare one EIR for all projects, or one for each project, but shall in either case comment upon the cumulative effect.
>
> **Note:** Authority cited: Section 21083, Public Resources Code; Reference: Sections 21061, 21100, and 21151, Public Resources Code; *Whitman v. Board of Supervisors*, (1979) 88 Cal. App. 3d 397.

CEQA Guidelines Section 15168 defines a Program EIR and explains its advantages and uses with latter stages of the project. Section 15168 states in part:

15168. PROGRAM EIR

(a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

(1) Geographically,

(2) A logical parts in the chain of contemplated actions,

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

OSLDF-43 (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

In addition, the courts have repeatedly held that the practice of breaking a larger project into components – thereby "piecemealing" or "segmenting" – in order to avoid analyzing it as whole is unacceptable.

The Lease Agreement is an oil, gas and mineral lease. The DEIR fails to address the other minerals which might be produced under the oil, gas and mineral lease. The Lease grants Matrix Oil Corporation and Clayton Williams Energy, Inc., "exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land." All potential activities need to be addressed in the DEIR.

The Lease Agreement states that the Lease Agreement is for "1,280 acres of land more or less" (see Exhibit G). The first paragraph of the Project Description contained in the DEIR on page 2-1 reproduced below describes the project analyzed in the DEIR as:

> The proposed Whittier Main Oil Field Development Project (Project) would involve drilling wells and producing oil and gas from the Project Site, which comprises approximately 7 acres of the property owned by the City of Whittier that is part of the Puente Hills Landfill Native Habitat Preserve (Preserve). The Preserve is located at the eastern edge of Los Angeles County, bounded by the San Gabriel River on the west and the Chino Hills to the east (see Figure 2-1).

The DEIR thus fails to consider the whole of the more or less 1,280 acre project site.

Furthermore, the Lease Agreement provides for both additional wells, beyond what is analyzed in the DEIR, and piecemealing of the permitting process for drilling within the 1,280 acre project site. The DEIR fails to analyze more than just the first phase of a lengthy and larger project as detailed in **Section 3.1** of this letter. In addition, the DEIR fails to specify the nature or use of any revenues obtained from the leased land by the City and/or County, or to analyze the potential environmental impacts of the use of such revenues as detailed in **Section 3.2** of this letter. The DEIR is thus fatally flawed.

3.1 FUTURE CONDITIONAL USE PERMITS (CUPS)

Section 4.2 of the Lease Agreement reproduced on the following page both provides for and encourages future drilling activity within the 1,280 leased acres. Section 4.2 of the Lease Agreement thus encourages future drilling activity by providing for a contract of unspecified duration which requires the quitclaim of lands not located in a Well Tract upon which there is a well that is producing or is capable of producing, once the "continuous development program" has terminated. The Lease thus encourages a "continuous development program" and continuous production from wells. In order to maintain a "continuous development program" Section 4.2 specifies that within 180 days after the completion or abandonment of a well, another well must be drilled.

Section 4.2 of the Lease Agreement provides for the drilling of an unlimited number of wells, stating: "Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled." It should be noted that although the DEIR assumes for purposes of analysis the drilling of 60 wells, the DEIR provides no mitigation measure, nor does it identify any Condition of Approval, which would limit the number of wells drilled at the drill sites and production support sites addressed in this DEIR for what is clearly the first phase of the project.

> 4.2. **Continuous Operations.** If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at any one time, the continuous development obligation shall not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production.
>
> Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled.

Given the City's history of failing to conduct required CEQA review for the discretionary approvals required for this project, and the Lease terms which do not specify that a discretionary approval is required for additional drilling at the sites addressed in this DEIR, it is unlikely that additional environmental review would be conducted should Matrix choose to drill additional wells on the drill sites addressed in the DEIR. The DEIR thus fails to either identify or analyze the full potential for drilling on the sites addressed in this DEIR.

OSLDF-44

Not only does the Lease Agreement provide for and encourage additional drilling within the 1,280 project site, Section 6.6 of the Lease Agreement mandates a piecemealed permitting

process for future drilling sites within the 1,280 project site. Section 6.6 of the Lease Agreement which is reproduced below allows for additional drilling sites within the 1,280 acre project site and additional phases of the project, with separate Conditional Use Permits:

> 6.6 **Request for Additional Sites.** In the event that Lessee has drilled six wells on the Leased Lands, then Lessee shall have the right to request from Lessor one or more additional drillsites, subject to Lessee applying for and obtaining a Conditional Use Permit therefor and obtaining a release of any such additional sites from protected area status from the Los Angeles County Proposition A District. Lessor may in its sole discretion and for any reason deny or grant Lessee the right to construct any such additional site.

Since issuance of a Conditional Use Permit is a discretionary action requiring environmental review it would appear that the City envisions a series of environmental documents for different phases of the drilling program. The Lease Agreement thus clearly sets up a piecemealed planning and permitting process, and piecemealed environmental review of drilling within the 1,280 acre project site. This is a clear violation of CEQA.

3.2 FAILS TO IDENTIFY THE AMOUNT OR NATURE OF PROP A COMPENSATION

OSLDF-45

Page 2-1 of the Project Description states that the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. (Please see **Section 2.3** of this letter for a discussion of why this is an incorrect statement of Proposition A requirements). Since obtaining a release from protected area status from the Los Angeles County Proposition A District is a precondition for approval of the various Conditional Use Permits for the project envisioned in the Lease Agreement (see **Exhibit G**, Paragraph 6.6 reproduced above), the Project Description for this action is incomplete without a description of the Proposition A District's requirements for any such release, and an analysis of the environmental consequences of any physical changes in the environment which would be the consequences of the conditions of such a release.

3.3 FAILS TO IDENTIFY THE LOCATION OR FEASIBILITY OF COMPENSATION ACREAGE

OSLDF-46

The project description contained in the DEIR is incomplete because it fails to identify the location of any compensation acreage required for either biological resource mitigation or Proposition A mitigation, or to show that such compensation acreage is available. This is a clear example of improperly deferred mitigation for a significant Proposition A impact, which is both a significant land use and land use policy impact, and for biological resource impacts. In addition, given that the Lease Agreement is for the full "1,280 acres more or less" any mitigation compensation within the 1,280 acres would be inappropriate.

3.4 FAILS TO ADDRESS ACTIONS SUBJECT TO THE NATIONAL ENVIRONMENTAL POLICY ACT

The proposed project will require an Incidental Take Permit under the Endangered Species Act per DEIR page 42-38. An application for an Incidental Take Permit requires

preparation of a Habitat Conservation Plan (HCP), a 30-day public comment period on the Incidental Take Permit application and associated HCP. In addition, in issuing an Incidental Take Permit, the U.S. Fish and Wildlife Service must comply with the National Environmental Policy Act (NEPA) and other statutory and regulatory requirements, including any state or local environmental/planning laws such as CEQA.

OSLDF-47 The DEIR is legally inadequate because it fails to provide the public and reviewing and responsible agencies with the opportunity to review and comment on the HCP and Incidental Take Permit application as part of first phase project review, thereby further segmenting CEQA review of the project.

Furthermore, CEQA Guidelines Section 15221 states that if the required NEPA document would not be prepared by the federal agency by the time the Lead Agency will need to consider an EIR, the Lead Agency should try to prepare a combined EIR-EIS. Guidelines Section 15226 states that local agencies should cooperate with federal agencies to the fullest extent possible to reduce duplication between CEQA and NEPA. The City should have prepared a combined EIR/EIS for the proposed project and included full analysis and description of the HCP and Incidental Take Permit application.

4.0 INADEQUATE CUMULATIVE PROJECTS LIST

The cumulative projects list contained in the DEIR is inadequate and incomplete. Section 3.0 of the DEIR indicates that Section 3 contains a description of "other related future projects near the location of the proposed Project and alternative" (emphasis added). CEQA Guidelines Section 15355 defines a cumulative impact in terms of "other closely related past, present and reasonably foreseeable probable future projects." The list of cumulative projects contained in the DEIR is thus improperly constrained to future projects. Key projects missing from the cumulative projects list include all drilling conducted within the Whittier Oil field since approximately 2001, including the new wells drilled and planned to be drilled by Matrix Oil at its other sites in the area. (See **Section 1** of this letter).

OSLDF-48 Section 3.0 of the DEIR also indicates that the "cumulative impact study area includes the immediate vicinity surrounding the Project Site and the proposed crude and gas pipelines in the City and the unincorporated Los Angeles County community of South Whittier (see Figure 2-8)." DEIR Figure 2-8 shows only the area extending approximately 2 miles south of the Project Site as defined in the DEIR. Given that the true project site included in the Lease Agreement is 1,280 acres, the DEIR has inappropriately constrained the cumulative projects area. In addition, the DEIR fails to address any other projects which may make use of the larger gas and oil pipeline system that the project's oil and gas transmission pipelines will tie into. As a result, the DEIR does not properly address impacts to the existing oil and gas transmission system.

The proposed project includes impacts to designated Critical Habitat. The cumulative projects list must also include any projects with the potential to impact Critical Habitat units affected by the proposed project and the first phase of the project included in the Conditional Use Permit application.

5.0 INADEQUATE IMPACTS ANALYSIS

The impact analysis for each of the issue areas contained in the DEIR is fundamentally and basically inadequate because the DEIR fails to analyze:

OSLDF-49 1. The full project allowed under the Lease Agreement. It is clear that the Lease Agreement provides for future phases of the project as detailed in **Section 3** of this letter.

OSLDF-50 2. The full area impacted by the proposed project described in the DEIR as detailed in **Section 2.1.2** of this letter.

OSLDF-51 3. The effect of the proposed actions described in the DEIR on the full 1,280 acre project site. Similarly, the setting sections of each of the issue area analyses in the DEIR are inadequate because they fail to also describe the full 1,280 project site.

OSLDF-52 4. The effect of both the proposed project described in the DEIR and the full project on the larger Habitat Preserve.

5.1 RESULT OF PIECEMEALING IS AN UNDERESTIMATE OF PROJECT IMPACTS

OSLDF-53 The net result of the piecemealing of the project and the analysis, and the failure to even describe the full extent of the first phase of the project, is an across-the-board underestimate of project impacts. The DEIR is thus fatally flawed.

5.2 FAILURE TO IDENTIFY AND/OR UNDERESTIMATE OF SIGNIFICANT PROJECT IMPACTS

All of the discussions of the project's potential impacts need to be redone to address both the full project and the first phase of the project. All of the discussions need to be redone to address a more accurate description of the first phase project. All of the discussions need to be redone to include a cumulative impact analysis which includes an appropriate cumulative project list for the issue areas. In addition:

5.2.1 Air Quality

The DEIR identifies the following **Significant Unavoidable Air Quality Impacts**:

- ☑ AQ.1 - NOx construction emissions would exceed South Coast Air Quality Management District thresholds.
- ☑ AQ.4 – Potential operations and drilling at the Whittier Oil Field would increase greenhouse gas emissions

OSLDF-54 According to the model inputs contained in Appendix B - the air quality model runs, the pad clearing and fugitive dust emissions calculations assumed a total disturbed acreage of 2.4 acres "equal to the pad area of west and central," 20 days of grading and 20 days of disturbed area. A total cut and fill for the central and west sites of 2,157 was also used in the calculation. The test drilling fugitive dust emissions assumed 84 days of disturbed area and the same acreage of 2.4 acres. The testing fugitive dust emissions assumed 120 days of disturbed area and the same acreage. Pursuant to DEIR Table 2-3, the west, central and east sites and the pad for the trucking facilities are 7.1 acres, without consideration of the disturbed area. The disturbed area for the west, central, east and trucking facility equals 12.1 acres, without the corrections identified in **Section 2.1.2.1** of this letter.

OSLDF-55 The pipeline fugitive dust emissions calculations assume 0.01 acres total disturbed area and 180 days of disturbed area. The Project Description in the DEIR fails to identify the acreage disturbed by pipe installation.

OSLDF-56 The grading fugitive dust emissions calculations assume 19.6 disturbed acres equal to the "total sum of pad areas disturbed + temp construction parking and staging + access road + truck loading," 80 days of grading/disturbed area and 112,824 cubic yards of cut and fill equal to "total cut and fill sum for all pads, and processing area and access road." The facilities construction fugitive dust emissions calculation also assumes 19.6 disturbed acres and 68 days of grading/disturbed area.

OSLDF-57 Based on the information contained in Table 2-3 of the DEIR, and the needed corrections to the Table and Project Description discussed in **Sections 2.1.2.1 and 2.4** of this letter, it is clear that the air quality analysis contained in the DEIR underestimates the air quality impacts of project construction as a result of an underestimate of both pad area and disturbed area acreage. The analysis must be corrected to reflect a corrected project description. In addition, Table 4.2-8-Proposed Project Construction Criteria Emissions appears to assume that pad clearing, grading and access road construction, facility construction, and pipeline construction will all occur sequentially and that the emissions for the different activities are not additive. The Table needs to be corrected to sum emissions from activities which may occur concurrently.

OSLDF-58 The DEIR states that the air quality mitigation will reduce criteria pollutant impacts during operations and particulate impacts during construction to a level which is less than significant, but no analysis is included in the body of the DEIR to provide support for these statements. A "with mitigation" analysis should be included in the body of the DEIR and should reflect the needed corrections to the analysis.

OSLDF-59 ☑ Conflict with or obstruct implementation of the applicable air quality plan.

The Air Quality analysis fails to address all of the issues included on the CEQA checklist. The Air Quality analysis does not address the question of whether the proposed project would conflict with or obstruct implementation of the applicable Air Quality Plan. An analysis of air plan consistency must be added to the DEIR.

The DEIR does not include an analysis of CO Hotspot impacts. Given the LOS levels and traffic impacts of the proposed project, the potential for significant CO Hotspot impacts exists and must be addressed in the DEIR.

☑ Expose sensitive receptors to substantial pollutant concentrations.

The proposed project is located in proximity to a school, recreational uses and a park. The DEIR must address the proposed project's potential to expose sensitive receptors to substantial pollutant concentrations.

OSLDF-61 The odor analysis identifies the fact that humans can detect the odor from sulfur compounds found in oil at concentrations from 0.5 parts per billion (ppb) and that 40 ppb would be detected by most people. The DEIR notes that hexane has an odor threshold of between 68 and 248 ppm and pentane has an odor threshold of 2 ppm. The discussion indicates that the OSHA allowable limit for occupational exposure to H_2S is 20 ppm with a 50 ppm peak over 10 minutes and indicates that inhaling 100ppm of H_2S can be lethal.

The DEIR also needs to indicate the concentrations which are considered harmful as well as lethal to wildlife and needs to address potential biological resource impacts associated with odors, given the project's location within a Habitat Preserve.

☑ Create objectionable odors affecting a substantial number of people.

The DEIR fails to provide any real analysis of the potential for odor impacts, relying on a more qualitative analysis and compliance with SCAQMD rules. Given that Matrix operates two oil sites in the area which are extracting oil and gas from the same field, odor testing by an independent expert over a 4-6 month period should have been conducted at the existing sites to asses the potential for odor impacts resulting from day-to-day operations. The DEIR should include a summary of the odor-related complaints regarding the other Matrix facilities, as it is clear from the socioeconomic study included in DEIR Appendix H that complaint data is available. The DEIR should also disclose that Matrix has received violation notices from the SCAQMD for both of their local facilities (see **Exhibit K**). Voluntary reliance on compliance with AQMD requirements is thus not sufficient to ensure that air quality and odor impacts will be less than significant.

The analysis identifies the potential for significant odor impacts from equipment or drilling upset conditions which have caused notices of violation at other oilfields. In addition, the analysis identifies the potential for significant odor impacts associated with accidental releases. Given that accidental releases are just that, accidental, the potential for significant unavoidable adverse odor impacts remains. Odor impacts must be identified as a **Significant Unavoidable Adverse Impact** in the DEIR.

OSLDF-62 The DEIR includes 5 mitigation measures for odor impacts. Mitigation Measure AQ-3b includes reporting tank pressure exceedance incidents to the Los Angeles County Fire Chief along with corrective actions that the operator will take to avoid exceeding the tank relief

pressure. This mitigation, which may reduce the potential for accidental odor releases over time, does not ensure that significant odor incidences can be avoided.

Mitigation Measure AQ-3c requires the preparation of an Odor Minimization Plan, including a protocol for handling odor complaints. The Odor Minimization Plan should have been included in an appendix to the DEIR and the effectiveness of the Plan analyzed in the DEIR. No standards for the Odor Minimization Plan are provided as part of the mitigation measure. Mitigation Measure AQ-3c constitutes improper deferral of mitigation.

Mitigation Measure AQ-3d similarly required the development of an Air Monitoring Plan. This Plan similarly should have been included in an appendix to the DEIR and analyzed for effectiveness in the DEIR. The mitigation requires that monitors shall be installed around the outer edge of the drill pad and around the outer edge of the gas plant and shall be triggered by the detection of hydrogen sulfide or total hydrocarbon vapors. What about hexane and pentane? The measure indicates that alarm points shall be set at the maximum of 5 and 10 ppm for H_2S and 500 to 1,000 ppm for hydrocarbons. Given that 20 ppm is the OSHA standard for H_2S and the monitors are at the outer edge of the pad and gas plant, the DEIR needs to demonstrate that these monitoring locations are adequate for worker safety. Given the odor detection capabilities of humans for small amount of sulfur compounds or hydrocarbons as discussed on page 4.1-34 of the DEIR, the DEIR has not demonstrated that the mitigation measures will adequately reduce impacts to a level considered less than significant.

Mitigation Measure AQ-1b provides that test drilling be limited to the Central Well Site. As shown on DEIR Figure 4.2-2 gnatcatchers have been observed at the Central Well site. The DEIR needs to address the potential biological resource impacts of Mitigation Measure AQ-1b.

5.2.2 Biological Resources

The DEIR identifies the following **Significant Unavoidable Biological Resource Impacts**:

- ☑ BIO.4 - Would substantially interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridors.
- OSLDF-63 ☑ BIO. 4 - Could interfere with the use of native wildlife nursery sites.
- ☑ BIO.4 - The East Well pad site would impact wildlife movement.

We would note that these are separate Unavoidable Impacts. The DEIR thus understates the number of Significant Unavoidable Impacts by grouping these impacts together as Unavoidable Impact Bio.4 in Table ES-2.

The acreage impacted by the first phase of the project needs to be corrected on page 4.2-1 of the DEIR and throughout the document. The following sentence should be deleted from paragraph 1 on page 4.2-1 as the ultimate financial effects of the project, given Proposition A requirements, are currently unknown: "In exchange for these rights, the Project would generate a long-term income stream for the City and for the preservation, management, and enhancement of OSLDF-64

the Preserve's ecological resources and native habitat." Furthermore, given the inadequacies of the DEIR, the ultimate environmental impacts and remediation requirements resulting from the project are also unknown. This sentence merely serves to show the partial nature of the DEIR analysis.

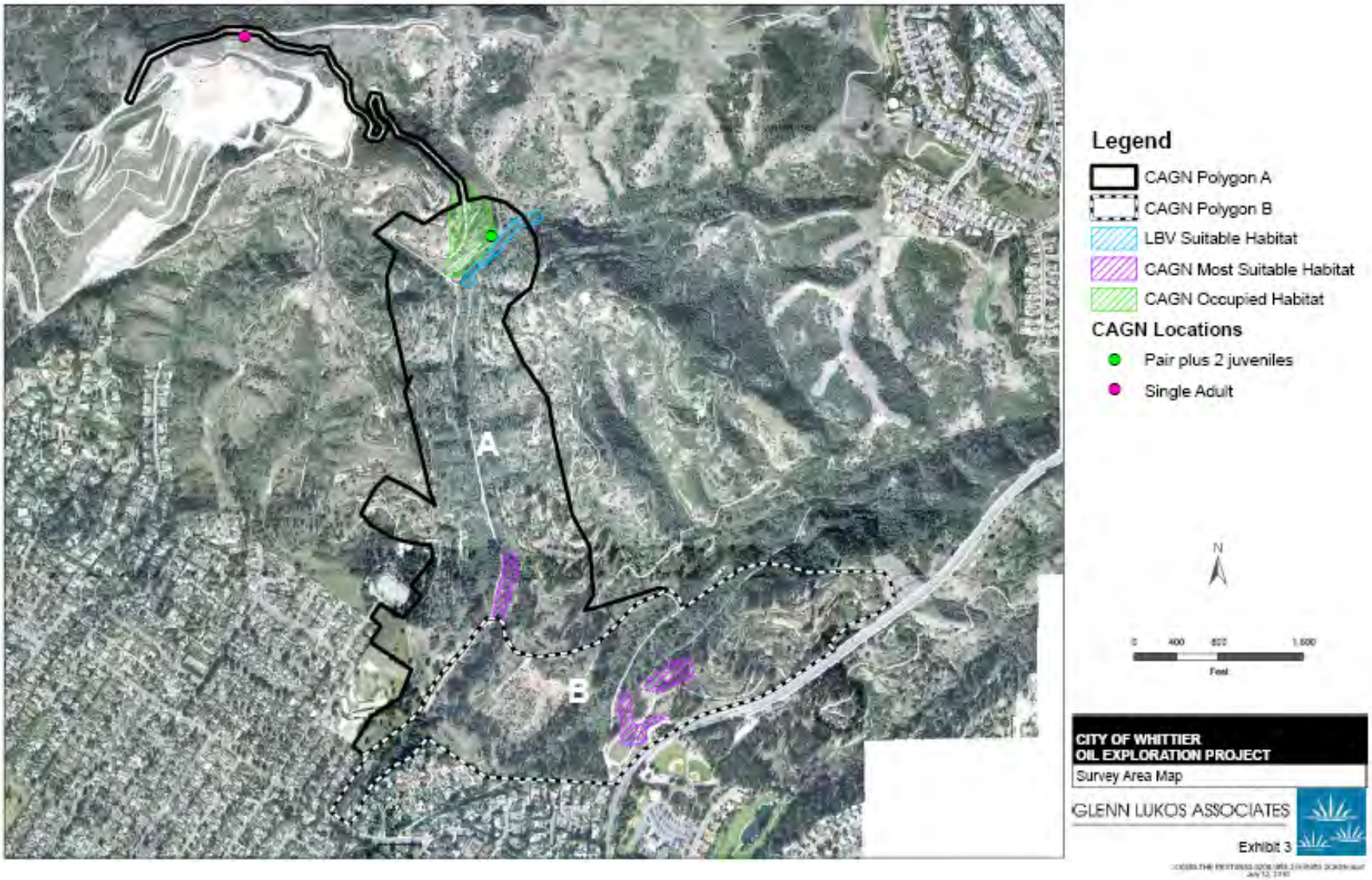
OSLDF-65 Page 4.2-3 of the DEIR states that the only authorized human usage of the western part of the site consists of occasional patrols by rangers from the Mountains Recreation and Conservation Authority and other authorized management-related functions of the Habitat Authority. If portions of the 1,280 acre site are restricted, or portions of the area in which the phase 1 project would be located are restricted, the DEIR should include a map of the restricted areas and specify the reasons for the restrictions. Based on information contained later in this section of the DEIR, it would appear the reason for the restriction is that the western part of the phase 1 project area is located within Core Habitat.

OSLDF-66 It is unclear throughout the biological resources section what the Project Site is – please define as part of the discussion contained in 4.2.1 and include a map showing the area considered the project site for purposes of the biological resources analysis. The analysis should include a discussion of the full 1,280 acre project site and the area of potential impact associated with the phase 1 project.

OSLDF-67 Please also define "project vicinity." Page 4.2-9 indicates that Plummer's mariposa lily, Catalina mariposa lily and Robinson's peppergrass were known from the nearby vicinity. From the text of the DEIR it is unclear the area addressed in the focused surveys. A map showing the areas addressed in the various focused surveys should be included in the body of the DEIR.

Glen Lukos' July 26, 2010 report, included in Appendix C of the DEIR, indicates that in addition to the California gnatcatcher (*Polioptila californica californica*) two other special status riparian birds were detected during protocol surveys for the gnatcatcher and Least Bell's Vireo (*Vireo bellii pusillus*): a yellow-breasted chat (*Icteria virens*) and one yellow warbler (*Dendroica petechia brewsteri*) were detected in the northern portion of the survey area within La Cañada Verde and a second yellow warbler was detected north of the Arroyo Pescadero parking lot. The report also indicates a June 14, 2010 California gnatcatcher (gnatcatcher) sighting. Table 4.2-2 indicates that Cooper's hawk (*Accipiter cooperi*) was observed on the project site during surveys in 2008 and 2009. These sightings are not included on DEIR Figure 4.2-2; the Figure should thus be corrected to reflect these additional sightings.

Exhibit 3 of Mr. Lukos's July 26, 2010 report, reproduced on the following page, also included important information on suitable habitat for the Gnatcatcher and Vireo which is important to an evaluation of roadway alternatives and which should be included in the body of


A
B
Legend
CAGN Polygon A
CAGN Polygon B
LBV Suitable Habitat
CAGN Most Suitable Habitat
CAGN Occupied Habitat
CAGN Locations
Pair plus 2 juveniles
Single Adult
N
0 400 800 1,600
Feet
CITY OF WHITTIER
OIL EXPLORATION PROJECT
Survey Area Map
GLENN LUKOS ASSOCIATES
Exhibit 3

the DEIR. In light of Exhibit 3, it is unclear why DEIR Table 4.2-2 classifies the potential for breeding on the Project Site to be low.

OSLDF-68

As shown in Exhibit 3 from the Glen Lukos Associates report, the Central Site is located within the Most Suitable Habitat area for the gnatcatcher, as is the East Well Site. The impact of these portions of the phase 1 project (and alternatives) on habitat should be clearly explained in the DEIR. In addition, the Landfill Access alternative would run through suitable habitat for the Lease Bell's Vireo as shown on the Exhibit.

The DEIR should include a map showing the portions of the leased parcels which are within designated Critical Habitat, and a map of the phase 1 project area and its relationship to Critical Habitat area. The sentence on page 4.2-18 of the DEIR regarding Critical Habitat downplays the presence of Critical Habitat on the project site. **Figures 2 and 3** on the following page, which overlay the Critical Habitat from the USFWS's critical habitat mapper (orange shading) on Figures 2-2 and 2-6 of the DEIR are provided by way of example.

The discussion of the Federal Endangered Species Act on page 4.2-24 of the DEIR needs to provide the reader with more information regarding the requirements for obtaining an Incidental Take Permit, including the requirement for preparation of a Habitat Conservation Plan (HCP) and NEPA compliance. The discussion needs to explain that the proposed project would be subject to these requirements. It also needs to explain that Critical Habitat is defined in the Endangered Species Act as areas that are "essential" for the conservation of the species.

OSLDF-69

The biological resources section of the DEIR includes a discussion of the regulatory setting, including Federal regulations (in 4.2.2.1), State regulations (in 4.2.2.2) and local regulations (in 4.2.2.3). However, the biological resource section of the DEIR does not include any real analysis of the project's (phase 1 and full project) consistency with these regulations. The discussion on pages 4.2-47 to 4.2-48 is totally inadequate. The proposed project is clearly inconsistent with a number of biological resource policies. For example, the proposed project violates Section 18.090.020 of the City's Municipal Code which states that: "(e)xtremely limited development and disturbance of natural features within designed OS areas would be permitted, and only in the interest of public use, safety, or welfare shall such modifications occur." The proposed project does not represent extremely limited development or disturbance, and isn't in the interest of public use, safety or welfare. The DEIR needs to include an analysis of the project's consistency with each of the regulations and policies described in Sections 4.2.2.1 to 4.2.2.3 of the DEIR. The conclusion that conflicts with policies and ordinances protecting biological resources are less than significant with mitigation contained on page 4.2-47 to 4.2-48 of the DEIR is not supported by any real analysis and defies common sense. Policy consistency impacts remain **Significant and Unavoidable** and should be classified as such.

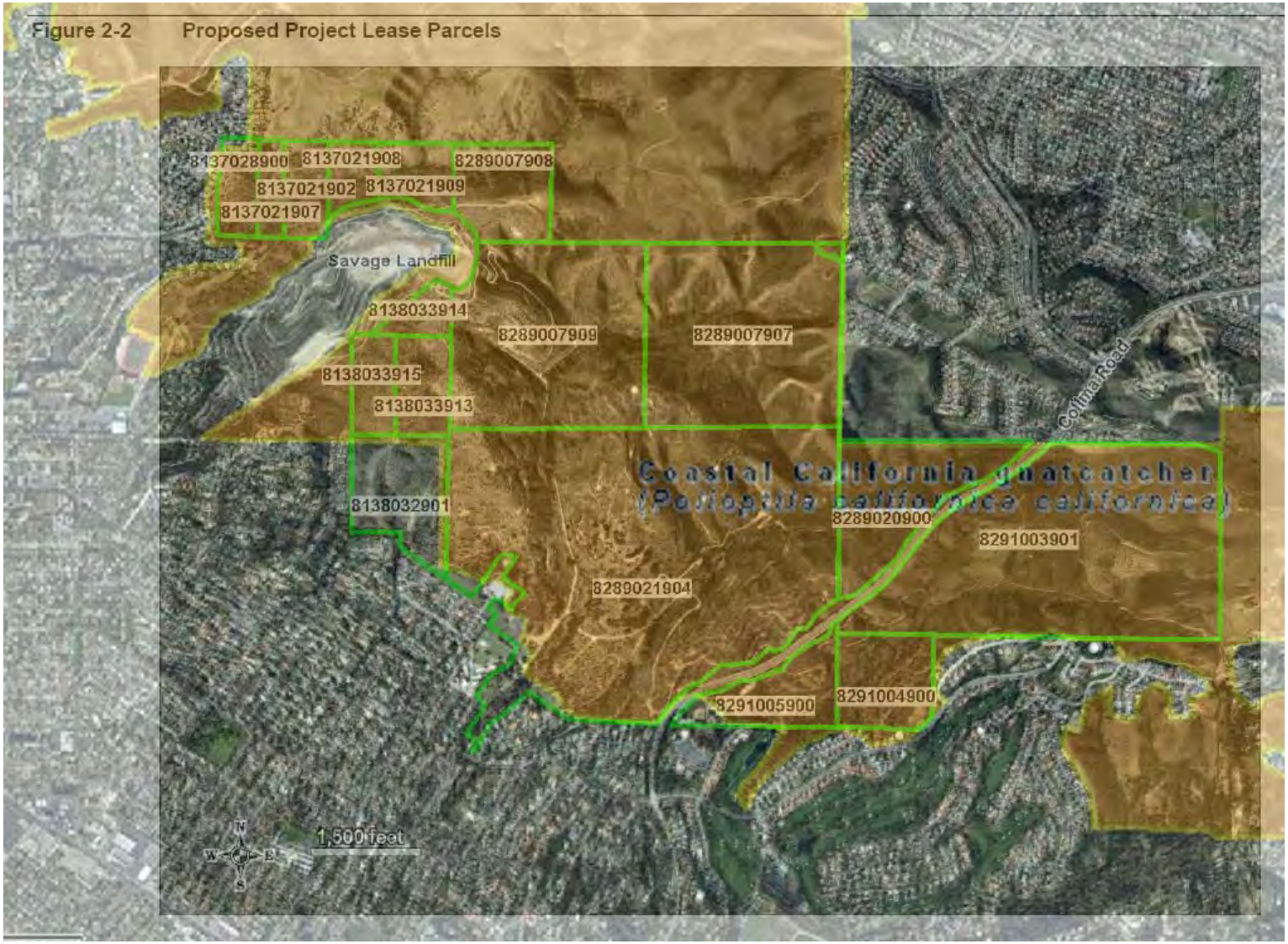


FIGURE 2 - LOCATION OF PROJECT PARCELS (Green lines) AND CRITICAL GNATCATHER HABITAT (Sepia Overlay)

FIGURE 3 - LOCATION OF PHASE 1 PROJECT COMPONENTS AND CRITICAL HABITAT (Sepia Overlay)

In addition, the DEIR fails to include any analysis of the degree to which the project conflicts with the Habitat Authority's adopted 2007 Resource Management Plan (RMP) for the Habitat Preserve. There is thus no analysis for the sixth threshold of significance addressed in the DEIR:

☑ Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

OSLDF-70 There is no analysis of potential BIO.6 – The proposed project would clearly conflict with provisions of an approved HCP due to its impacts on Preservation Management Zone and Core Habitat Management Zone areas identified in the Habitat Authority's 2007 Resource Management Plan (RMP). (Figure 4.2-6 should show all the applicable management zones and should include a detailed map showing the relationship of these zones to phase 1 project and alternative components). **Figure 4** on the following page, shows the location of phase 1 project features imposed on Figure 11 of the RMP showing Core Habitat. As shown in **Figure 4**, key components of the proposed project and the alternatives would be located in the portion of the Habitat Preserve designated as Core Habitat. All of the proposed first phase would be located in within either the Core Habitat or a Preservation Management Zone. The Landfill Access Road, which is included as a component of the "environmentally preferred alternative, would travel through the center of the Core Habitat. The DEIR needs to make this clear to the reader.

OSLDF-71 Core Habitat is described in the RMP and on DEIR page 4.2-31 as areas that "would remain off-limits for the sole purpose of providing undisturbed habitat for wildlife, which contributes to sustaining the overall ecological health of the Habitat Authority's jurisdiction." Core Habitat provides "food, shelter, a place to safely reproduce, and depending on how large the habitat, a place for young to disperse." "Permissible activities include authorized biological survey and some restoration and/or invasive species removal, but no unsupervised public access." The first phase of the proposed project would therefore strike a blow to the heart of the Habitat Preserve, by introducing human activity, industrial activity, vehicular activity, noise, light and odors into the Core Habitat Management Zone of the Preserve. The DEIR at page 4.2-42 acknowledges the importance of this habitat, but fails to identify a Significant Unavoidable Impact, focusing largely on the wildlife movement function of the area. The impact to the Core Habitat of the Preserve is clearly an Unavoidable Significant Impact of the first phase of the proposed project and all of the alternatives

This conflict with an approved habitat conservation plan is a **Significant Unavoidable Impact** of the proposed project and must be identified as Unavoidable Impact BIO-6 in the DEIR.

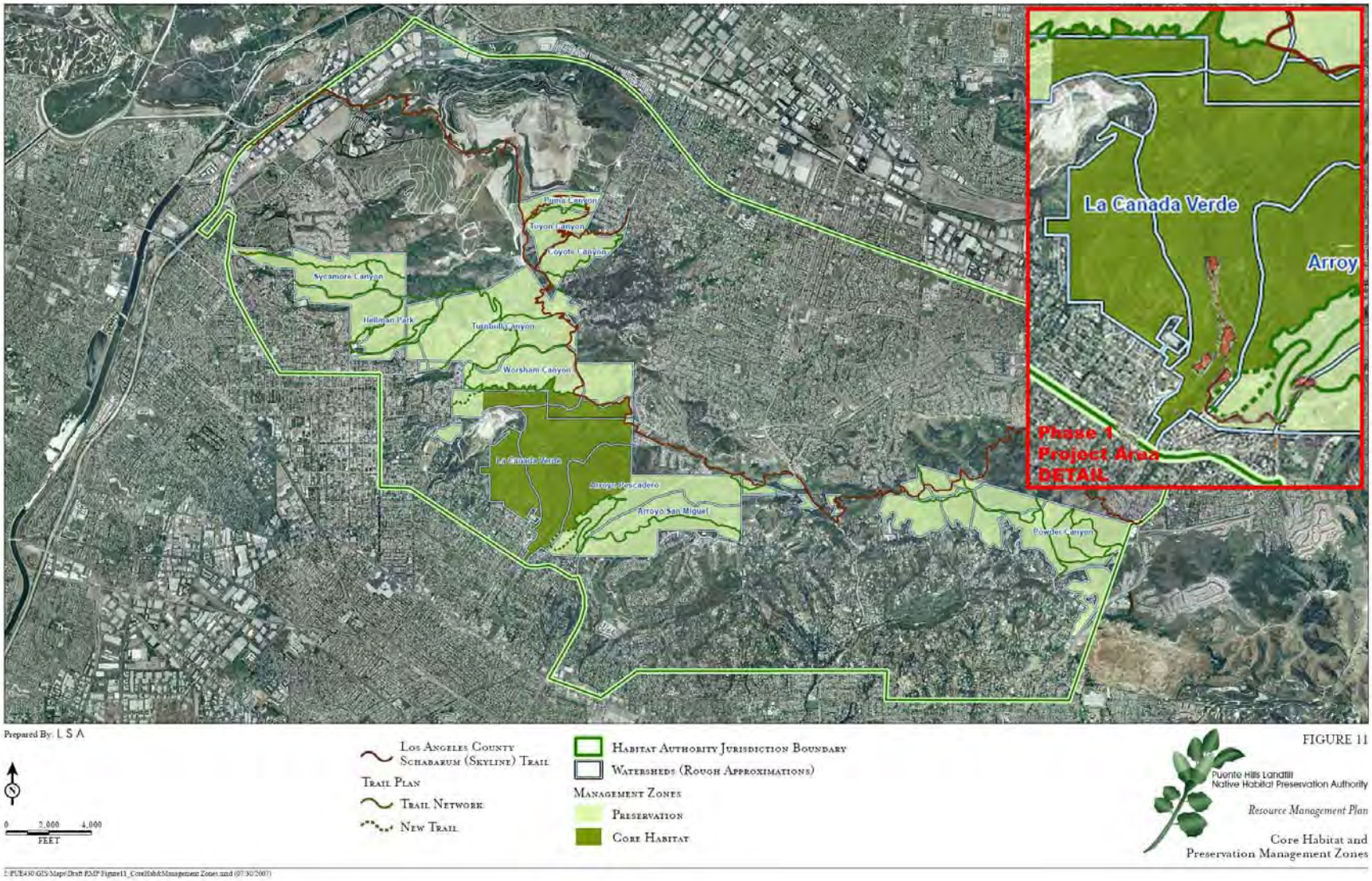


FIGURE 4 – LOCATION OF PHASE 1 FEATURES AND CORE HABITAT

OSLDF-72

On page 4.2-33 the DEIR states that: "As shown in Figure 4.2-5, the Project Site does not include any of the designated High Quality Habitat areas." This is not what is shown on DEIR Figure 4.2-5. DEIR Figure 4.2-5 shows existing trails and oil field roads leading to the service tunnel. Moreover, although LSA did not categorize the project site as High Quality Habitat, it is apparently of sufficient quality to be occupied by gnatcatchers, as shown on DEIR Figure 4.2-2, of sufficient quality to have been identified as Core Habitat in the Habitat Authority's 2007 RMP, and of sufficient quality to have been designated as Critical Habitat by the federal government. This would tend to support a conclusion that it is of high value.

The first threshold of significance addressed in the DEIR (see pages 4.2-37 to 4.2-40) is:

☑ Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The DEIR fails to adequately identify the impact of the proposed project on the federally designated threatened gnatcatcher and its federally designated Critical Habitat, limiting (see DEIR page 4.2-37) the identified impacts to permanent loss of 2.73 acres of coastal sage scrub and 0.07 acres of riparian scrub for grading and clearing for fuel modification, and another 0.82 acres of coastal sage scrub and 0.12 acres of riparian scrub which would be temporarily impacted by grading and then restored. The analysis of impacts is inappropriately constrained to the areas impacted by construction or grading and to habitat types. The entire area is designated Critical Habitat The DEIR fails to address the full area of Critical Habitat (at a minimum all 10.4 plus 4.9 plus 8.66 acres identified in Table 4.2-3 are critical habitat). In addition, the DEIR fails to address the area of Critical Habitat which will be impacted by project noise, vibration, odors and lighting. And, the DEIR fails to identify the area of Critical Habitat which would be impacted by the whole of the action allowed by the Lease Agreement. The analysis is thus fundamentally inadequate.

The proposed project is located within Unit 9: East Los Angeles County-Matrix NCCP Subregion of Orange County, which is described in the Final Rule as follows:

OSLDF-73

> Unit 9 encompasses approximately 17,552 ac (7,103 ha) the majority of which is under private ownership within the Montebello Hills, Puente-Chino Hills, and West Coyote Hills areas. Core populations are known from the Montebello Hills, south slopes of the Puente-Chino Hills from Whittier east to Yorba Linda, and the East and West Coyote Hills. The Brea Canyon Landfill is not designated as critical habitat, but represents a significant potential restoration area to support these remaining populations and aid in recovery of the species. The unit also provides the primary connectivity between significant coastal California gnatcatcher populations and sage scrub habitat within the Orange County Central-Coastal NCCP (Unit 6), the Western Riverside County MSHCP (Unit 10) and the Bonelli Regional Park

population within East Los Angeles (Unit 12).

> Habitat within this unit is being designated because it was occupied at the time of listing, is currently occupied, and contains all of the features essential to the conservation of the coastal California gnatcatcher (PCEs 1 and 2). Additionally, this unit provides for connectivity and genetic interchange among core populations and contains large blocks of high-quality habitat capable of supporting persistent populations of coastal California gnatcatchers. The PCEs contained within this unit may require special management considerations or protection to minimize impacts associated with habitat type conversion and degradation occurring in conjunction with urban and agricultural development.

This description should be included in the DEIR. As noted in the description, this unit is important not only for the presence of gnatcatchers, but also for it connectivity with other units and role in genetic interchange among core populations. The DEIR should analyze the potential of the proposed project to interfere with these functions.

Designated Critical Habitat is a finite resource. The proposed project would render a number of acres of this Critical Habitat potentially unusable to the gnatcatcher for an indefinite period. Impacts to Critical Habitat are thus a **Significant Unavoidable Impact** with the proposed first phase project or any of the alternatives as well as for the action as a whole.

OSLDF-74 In addition, the proposed project would occur within <u>occupied</u> Critical Habitat. The loss of individual members of the species, within an area deemed essential for species survival, would result in a **Significant Unavoidable Impact** to the species. The DEIR includes BIO-1d which requires the project applicant to obtain an Incidental Take Permit to "cover the Project's potential 'take' (which includes the permanent and temporary loss of 3.42 acres of critical habitat)." This mitigation measure constitute an improper deferral of both mitigation and NEPA-required analysis, and an understatement of Critical Habitat impacts, since even Table 4.2-3 shows greater impacts to the area designated as Critical Habitat. (See discussion above). Furthermore, a permit to take, does not avoid impacts to individuals of the species. Given that they are located within Critical Habitat, their continued existence is essential to the species. Since the DEIR does not include a HCP for the project, it is impossible for the public and reviewing agencies to assess whether impacts to the species can be avoided and impacts to Critical Habitat can be mitigated or whether an Incidental Take Permit is possible. In the absence of an approved HCP, impacts to Critical Habitat, the gnatcatcher species, and individual gnatcatchers (given that project roadways and sites are located where gnatcatchers have been observed) should all be classified as **Significant Unavoidable Impacts**.

OSLDF-75 The DEIR on page 4.2-11 indicates that supplemental surveys are being conducted to evaluate the presence of special status wildlife species along the alignment of the proposed entry road off Colima Road. When will these surveys be completed and how will they be incorporated within the environmental analysis?

OSLDF-76 The DEIR fails to fully identify impacts to other sensitive species known or with the potential to occur on-site including: the American peregrine falcon (observed on-site), Western spadefoot, Coastal western whiptail, San Bernardino ringneck snake, Cooper's hawk, Costa's hummingbird, Allen's hummingbird, Nuttall's woodpecker, California thrasher, Yellow-brested chat, Southern California rufous-crowned sparrow, Yuma myotis, Western red bat, Western yellow bat, Hoary bat, Pallid bat, Mountain lion, San Diego desert woodrat. Impacts to these species must be clearly identified in the DEIR.

OSLDF-77 In addition to the disruption from the demolition of actual habitat for project construction and operations, the project will introduce new noise sources into a Preserve area. As noted on DEIR page 4.5-21 project construction activities would result in a average daytime noise level of up to 74 dBA at the ranger station necessitating the relocation of the ranger station (see mitigation measure N-1c) and an average daytime noise level of 65 dBA at the school play yard. In addition to the general increase in noise associated with project operations, the first phase will include an average of one workover per well per year, or 52 workovers per year involving a workover maintenance rig. As noted on page 2-47 of the DEIR a workover takes from 1-7 days, operating 8-12 hours per day. These workovers will occur on an on-going basis throughout the life of the project. These workover rigs include a 90-foot tall mast which means that noise will be generated from above any noise walls. These workover rigs produce very loud intermittent noises, including metal-on-metal noise which is shown in DEIR Table 4.5-8 to produce sound levels of 100 dBA at 50 feet. Edward W. West, et. al. have found, for example, that pile driving and blasting (100 dBA at 15 meters) can potentially cause temporary or permanent hearing impairment in birds, chronic intense noise such as an oil field compressor station may induce physiological stress in some species, and highway noise as low as 45 dBA can potentially mask acoustic communication and modify breeding and other behaviors in many species. (See *Noise Impacts on Birds: Assessing Take of Endangered Species*, J. Acoust. Soc. Am. Volume 122, Issue 5 pp3082). In addition, the USFWS has established a 60 dBA threshold for analyzing impacts to gnatcatchers or take of this species. Noise impacts to sensitive species are thus clearly a **Significant Unavoidable Impact**.

OSLDF-78 Furthermore, the DEIR at page 4.5-35 indicates that vibration levels would exceed the significance criteria for residences (and one would assume habitat) within 700 feet of the drilling site. The DEIR should include a full analysis of the potential noise and vibration impacts of the project on biological resources and habitat value. However, given the information contained in the DEIR it is clear that vibration impacts of the proposed project on biological resources would be a **Significant Impact**.

OSLDF-79 Mitigation Measure BIO-1a provides for mitigation of permanent loss of coastal sage scrub habitat at a ratio of 2:1. This ratio is totally unacceptable and is low, even for an area which is not designated as Critical Habitat. In addition, the mitigation measure does not provide for replacement habitat for the full number of acres of Critical Habitat impacted by phase 1 and the larger project. (The mitigation should not specify the number of acres as this is likely to improperly constrain mitigation of the full acreage of impacts). The DEIR at page 4.2-38 states that mitigation Measures BIO1 to BIO1d would reduce impacts to special status species to a level which is less than significant, but this is clearly not the case, give the inadequate

replacement ratios, and acreage identified as impacted. Impacts to sensitive species remain a **Significant Unavoidable Impact**.

The second and third thresholds of significance addressed in the DEIR (see pages 4.2-38 to 4.2-41) are:

- ☑ Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game?

- ☑ Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling hydrological interruption or other means?

OSLDF-80 According to Appendix N of the RMP, there have been a number of restoration projects within the Habitat Preserve. Some of these are mitigation for development elsewhere in the County. As shown in Figure 5, which is a blow-up of a portion of Figure A-6 – Existing Restoration Sites from Appendix N of the RMP, two such mitigation project areas are located in the area potentially affected by the phase 1 project:

- Arroyo Pescadero: 2.5 acres to coastal sage scrub
- Former Chevron property: 9 acres of eucalyptus grove removal restored to coastal sage scrub, oak woodland, and elderberry woodland.

Since these areas represent mitigation for impacts elsewhere in the County, the effect of project impacts on these areas is essentially doubled (impact of project on habitat, loss of mitigation for impact elsewhere), and mitigation requirements for direct and indirect impacts to these areas should thus be doubled. In addition, the DEIR needs to disclose the cost of the mitigation which has been lost. What were the costs of the Arroyo Pescadero and Former Chevron restoration projects?

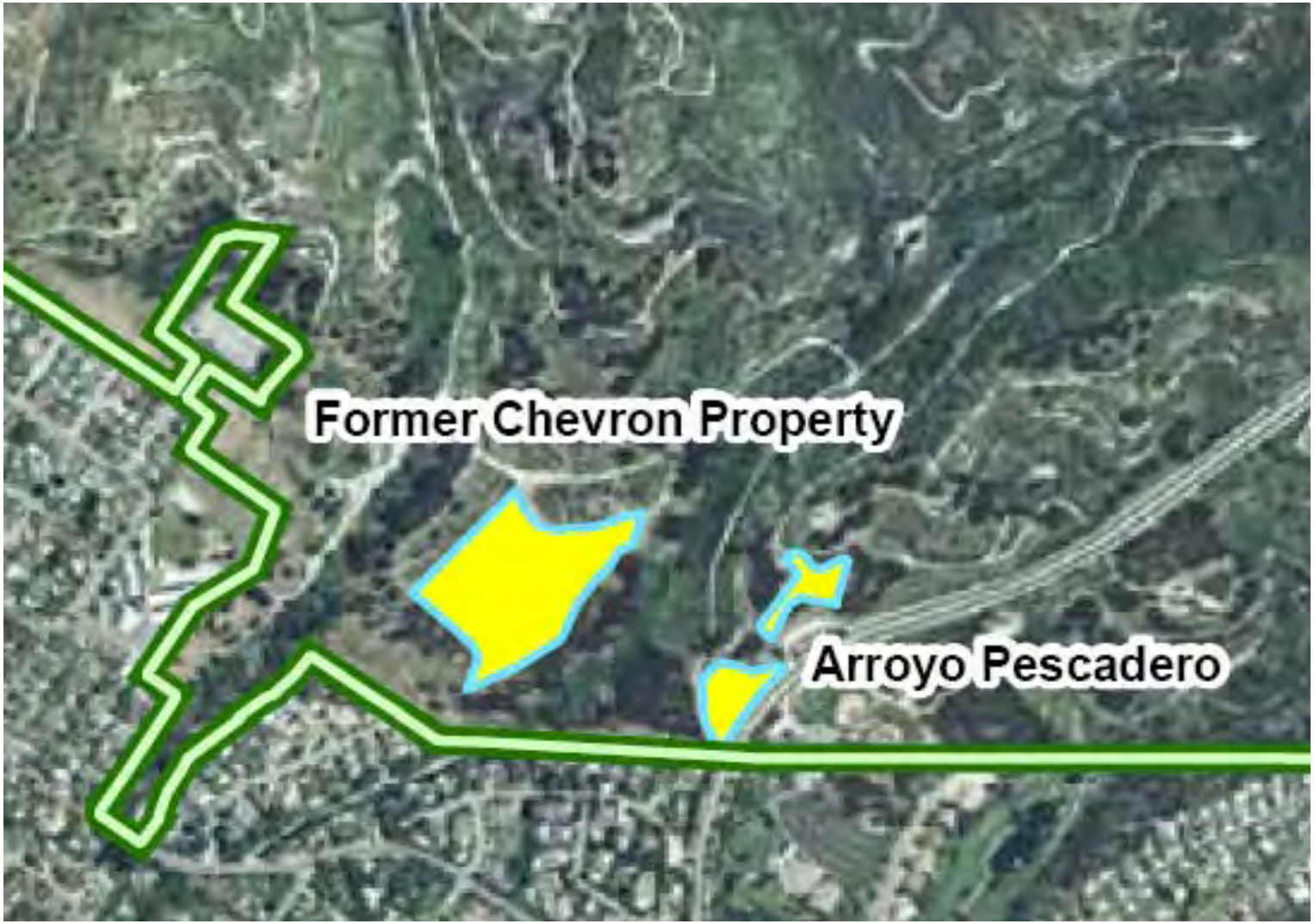


FIGURE 5 - BLOW-UP OF A PORTION OF FIGURE A-6 – EXISTING RESTORATION SITES FROM APPENDIX N OF THE RMP

OSLDF-81 There is no indication that a wetlands delineation study was prepared for the proposed project, yet the DEIR indicates that the proposed project will result in the loss of riparian habitat. As shown in DEIR Figure 4.2-7, phase 1 primary access would cross one riparian area, secondary Catalina Avenue access travels along a riparian area and key drainage, and the Central Site would be wrapped around a riparian area and key drainage as shown in **Figure 6**, on the following page.

OSLDF-82 Based on Mitigation Measure T-1e Catalina Avenue north of Mar Vista needs to be improved by widening the east side of Catalina north of Mar Vista to provide additional truck capacity. The EIR needs to discuss whether this improvement will impact the riparian area or require improvement of the existing culvert under Catalina Avenue.

OSLDF-83 As noted on page 4.2-33, the Arroyo Pescadero watershed and the La Canada Verde watersheds are the second and third most-sensitive watersheds within the Habitat Preserve. Since a streambed alteration agreement is required for phase 1 of the project, per mitigation BIO-2b, the DEIR should include a full wetlands delineation study in order to ensure that impacts to the watershed and riparian areas are fully identified. In addition, the DEIR fails to address whether changes in drainage associated with the proposed project would impact these watercourses. The proposed project includes substantial grading and landform modification. The DEIR thus includes an inadequate analysis and mitigation of potential impacts to riparian and wetlands resources. Impacts to riparian and wetlands should therefore be considered a **Significant Unavoidable Impact**.

OSLDF-84 The DEIR on pages 4.2-40 to 4.2-41 acknowledges the project's potential to result in the rupture of oil wells, pipelines or other oil field-related infrastructure. The DEIR should include a tank failure analysis and inundation study to determine the area of likely impact associated with ruptures. Mitigation Measure BIO-3 states that "when habitat disturbance cannot be avoided, the Emergency Response Action Plan shall provide stipulations for development and implementation of site-specific habitat restoration plans and other site-specific and species-specific measures appropriate for mitigating impacts to local populations of special-status wildlife species and to restore native plant and animal communities to pre-spill conditions." The mitigation thus anticipates that it may not be possible to avoid impacts associated with spills and ruptures. Since an Emergency Response Action Plan is not included in the DEIR for the project and phase 1 development, it is not possible for the public and reviewing agencies to assess the efficacy of the Plan. Mitigation BIO-3 is thus an example of improper deferral of mitigation and the DEIR does not provide sufficient information to support a conclusion that acknowledged impacts can be mitigated to a level which is less than significant. The potential for **Significant Unavoidable spill-related Impacts** to habitat, sensitive species, riparian and water resources, and the Preserve remains.

FIGURE 6 – LOCATION OF CENTRAL SITES IN RELATION TO DRAINAGE ALONG CATALINA AVENUE

The fourth biological resource threshold of significance addressed in the DEIR (see pages 4.2-41 to 4.2-47) is:

☑ Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?

OSLDF-85 It is unclear why the DEIR states at page 4.2-42 that "Impacts to wildlife movement would be significant but mitigatible in most areas of the proposed Project. However, increased levels of noise, light, human presence, and vehicular traffic at the East Well Site, during both the construction and operational phases of the Project, could result in significant and unavoidable effects upon a critical wildlife movement linage (the Service Tunnel)." While it is clear why impacts in the vicinity of the Service Tunnel are significant and unavoidable, it is not clear that wildlife movement impacts in other areas of the phase 1 project vicinity are mitigated to a level which is less than significant. Mitigation Measures BIO-4a to BIO-4h have not been shown to reduce impacts to the remainder of the site below a level considered **Significant and Unavoidable**.

The wording "to the extent feasible" or "all feasible" provides a method by which the applicant can opt out of the mitigation and renders measures ineffective, or open to interpretation and non-specific. See for example Mitigation Measures BIO-4a and BIO-4b.

The fifth threshold of significance addressed in the DEIR (see pages 4.2-47 to 4.2-48) is:

☑ Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

OSLDF-86 Mitigation Measures BIO-4f and BIO-4g anticipate the removal of trees from the project area. There has been no analysis in the DEIR of the number and type of trees to be removed and whether such trees currently serve a roosting or nesting sites for birds, or special-status bats. In addition, the buffers specified in these mitigation are likely inadequate to protect against noise impacts to nesting/roosting species. The DEIR needs to include a full analysis of tree removal. Any buffers specified in mitigation measures must address the sound characteristics of drill and construction activities as well as project-generated vibration.

The residual impact conclusion on page 4.2-47 is not supported by analysis or common-sense. Given both the wildlife corridor and nursery function of Core Habitat, and the project's impacts on such functions, impacts throughout the project area would remain **Significant and Unavoidable**. The DEIR thus understates the magnitude and extent of such impacts.

OSLDF-87 This section of the DEIR must discuss the project's consistency with each of the federal, state and local policies which apply to the biological resources on the project site. The DEIR's conclusion that the mitigation measures reduce biological resource-related policy consistency impacts to a level which is less than significant is not supported by either the analysis contained

in the DEIR or common sense. For example, the introduction of mining activity into a Habitat Preserve area where human activity is largely prohibited can not be mitigated via the measures included in the DEIR. Only compliance with the prohibition on activity within this area would reduce impacts to a level considered less than significant.

OSLDF-88 The cumulative impact analysis is inadequate, in part because the cumulative project list fails to include all past, present and reasonably foreseeable projects which would impact the Habitat Preserve, the Critical Habitat Unit, or the Wildlife Corridor. See for example the list of projects included on the Hills For Everyone website as threats to the Puente-Chino Hills Wildlife Corridor: http://www.hillsforeveryone.org/projects/index.html

OSLDF-89 As detailed above, phase 1 of the proposed project would result in a number of Significant Unavoidable biological resource impacts. The notion that the proposed project would not result in cumulatively considerable biological resource impacts is thus laughable. Particularly entertaining is the statement on page 4.2-50 of the DEIR that the "mitigation measures identified in this report are designed to bolster the ecological resilience of the Preserve in the Project vicinity, counteracting the adverse effects of the proposed Project, both considered alone and in the context of contributions to cumulatively considerable impacts." The DEIR actually suggests that conducting oil drilling within a Habitat Preserve is the way to "bolster the ecological resilience" of a preserve. The proposed project would introduce acres of human and industrial activity into a Core Habitat and Critical Habitat area, disrupting the use value of not only the actual area disturbed by the phase 1 project and action as a whole, but a number of additional acres as well, as wildlife avoid the disruptive effect of these activities. These are Significant Unavoidable Impacts. The proposed project thus contributes to **Significant Unavoidable Cumulative Impacts to the wildlife corridor, the nursery value of the Preserve, Critical Habitat, Core Habitat, sensitive species, the federally listed gnatcatcher, and riparian areas**, at a minimum.

The discussion of biological resource impacts contained in Section 4.2 of the DEIR is fatally flawed and must be redone to address issues contained in this comment letter, the comments letters received on the NOP, comments from the Habitat Authority and all other comments regarding biological resources received during the DEIR comment period.

5.2.3 Safety, Risk of Upset and Hazardous Materials

The DEIR identifies the following **Significant Unavoidable Risk Impact**:

☑ SR.1 - The proposed project could introduce risk to the public associated with the accidental release from well drilling.

OSLDF-90 According to page 9-1 of the DEIR, the safety and risks analysis was prepared by Greg Chittick, Senior Engineer, who has a B.A. and an M.S. in Mechanical Engineering. Is Mr. Chittick a licensed Professional Engineer? It does not appear so, from the information provided in the DEIR. It also appears from page 9-1 of the DEIR that the other person who assisted in the preparation of this section was Steven R. Radis who has a B.A. and M.A. in climatology. Please

identify all individuals with a background in Hazardous Materials who participated in the preparation of this section of the DEIR and list their credentials in this area?

OSLDF-91 Page 4.3-2 of the DEIR indicates that a Phase 1 assessment was conducted as part of the Proposition A funded acquisition of the site. It also indicates that soil sampling was conducted in 2010 by PW Environmental. Both of these reports should be included as appendices to the EIR in order to enable independent review of the findings and analysis. Based on DEIR Figure 4.3-2 it appears that no samples for hazardous materials were conducted at the proposed trucking site or along propose roadways.

OSLDF-92 How was this soil sampling conducted and to what depth? We would note that per Section 18.52.030 of the City's Municipal Code, a Conditional Use Permit is required for exploratory borehole operations. Was a Conditional Use Permit and environmental review conducted before the soil sampling done by PW Environmental or the exploratory borings done by Heathcote Geotechnical (described on page 4.4-2 of the DEIR)?

OSLDF-93 Page 4.3-2 states that the study area is defined as any area that could be impacted by a release of materials, generally the area within 0.25 to 0.5 miles of the proposed project. Was a failure analysis done on the project design and tank specifications to determine the potential area of impact, or was it simply assumed that this was the area of impact?

OSLDF-94 Page 4.3-4 indicates that the Quantitative Risk Assessment (QRA) examines the risks of immediate human safety impacts. What about safety impacts to sensitive-species and habitat? This has not been assessed. The DEIR must include an analysis of risk to biological resources.

OSLDF-95 Page 4.3-5 states that the main objective of the QRA is to assess the facility's risk of generating serious injuries or fatalities to members of the public. A serious injury is defined on page 4.3-23 of the DEIR as an impact requiring medical intervention and which produces effects that last significantly longer than the duration of the exposure. What is the definition of significantly longer? What about the risk of non-serious injury?

OSLDF-96 Page 4.3-5 indicates that the analysis is based on a QRA computer model developed by the EIR preparers Marine Research Specialists. Has the model been published or reviewed for accuracy by the appropriate professional community? Please list the source for all factors used in the model and explain how all of the probabilities used in the model were derived.

OSLDF-97 The DEIR does not indicate that a failure analysis has been conducted for the facility as proposed to determine whether or not the design and equipment specification are appropriate given the site's proximity to the Whittier and other faults. A failure analysis and assessment of the phase 1 design, specific to the geological conditions in the area, should be included in the DEIR.

OSLDF-98 Although it appears that probabilities were used in assessing risk, it is important to note in the DEIR that either an event occurs (100% probability) or it doesn't (0% probability).

OSLDF-99 Please include a map showing the areas included within the injury and fatality zones for the various events shown on DEIR Figure 4.3-4. Where in the DEIR does it actually indicate the number of persons who would be harmed and killed under each event scenario? This information needs to be included in the DEIR in any easy to understand way, in order for decision-makers and the public to understand the potential consequences of the project.

OSLDF-100 The DEIR on page 4.3-64 indicates that the phase 1 Central drilling site poses a **Significant Unavoidable risk to nearby residences, the Ranger Station and school**. The DEIR fails to disclose the potential number of extent of injury or deaths in the narrative. This must be done in order to understand the magnitude of the Unmitigated Impact. DEIR Figure 4.3-5, which provides some information on numbers of injuries and deaths uses a log scale for the number of injuries and fatalities, making it extremely difficult for the reader to determine the numbers. Please do not use a log scale for this figure. What is the basis for the statement on DEIR page 4.3-65 that fatality impacts would be less than significant? The DEIR includes Mitigation Measure N-1c which would move the Ranger Residence. Does this mean that only the ranger would have been killed in his/her home, but school children and Whittier residents would only be significantly injured?

OSLDF-101 Impact SR.2 only addresses the 6 inch pipeline. What about potential risks along the remainder of the gas transmission system which would be used for transporting gas produced by this project? What are the existing capacities, sizes and uses of these other pipelines? Would the addition of project gas to the system increase pressure and the potential for failure within any of these other pipelines? What about the Lambert Road pipeline?

OSLDF-102 Page 4.3-65 says that impacts would be less than significant if the wells are never pressurized. The DEIR needs to explain what this means and the conditions under which the wells would not be pressurized.

OSLDF-103 Mitigation Measure SR-2 includes reducing the size of the pipeline along Colima Road to 4 inches. Is this sufficient, given the amount of gas anticipated to be produced by the phase 1 project and the action as a whole? As size decreases, doesn't pressure increase, if the same amount of gas is transported? How does this affect the risk of failure? Page 4.3-65 states that use of a smaller pipeline would reduce the volume of natural gas within the pipeline by a factor of 55 percent. Is this size pipeline adequate, given anticipated production from phase 1 and the project as a whole, or will the number of wells and pumping rates need to be decreased to ensure that the pipeline will not be overburdened? How was it determined that this pipeline would be 6 inches in diameter in the first-place? DEIR Figure 4.3-5 does show the potential for post-mitigation fatalities. What is the cut-off used in assessing significant risk?

OSLDF-104 The DEIR includes analysis of the Central Well site. What about the other well sites? One would assume that at least workers could be killed or injured at these other locations which are part of the proposed project, as happened at Matrix's Honolulu Terrace facility. The DEIR needs to also include the number of injuries and deaths potentially associated with the other components of the phase 1 project. The Executive Summary should clearly indicate, as part of the description of Impact SR.1, that drilling at the Central Well Site would produce significant

impacts on nearby residences, including the Ranger Residence and the school, and indicate the projected number of injuries and deaths associated with a well blowout, and the area of impact.

OSLDF-105 Although the DEIR correctly identifies a significant hazard to the public through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials, the magnitude and nature of the Significant Unavoidable risk is not sufficiently well described for the public and the decision-makers to gain a true understanding of the risk of fatalities and injuries associated with phase 1 of the proposed project. In addition, the DEIR fails to separately identify that the proposed project would result in a **Significant Unavoidable Impact** due to the fact that the central well site is located within ¼ mile of an existing school. The proposed project would:

- ☑ Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

This is an additional Significant Unavoidable Impact of the proposed project and must be identified and addressed in the DEIR. The existing school is located within one-quarter mile of the central well site.

OSLDF-106 The cumulative impact analysis is inadequate because it fails to address the cumulative risk associated with Matrix's other facilities in the area. As detailed in **Exhibit L**, in 2005 Matrix experienced a fatal and injury fire at its Honolulu Terrace facility. The DEIR needs to include a full discussion of this incident, either in this section of the DEIR, or in Section 4.12 Fire Protection and Emergency services. Given Matrix's other drilling sites within the Whittier/Habitat Preserve area, and the Significant Unavoidable Hazard impact identified in this section of the DEIR, the proposed project's contribution to cumulative hazards in the area would be cumulatively considerable and the project should therefore also be identified as resulting in a **Cumulative Unavoidable Hazards Impact**.

5.2.4 Geological Resources

According to page 9-2 of the DEIR, the geology, hydrology and wastewater evaluation contained in the DEIR were prepared by:

- Rob Anderson who has a B.S. and a Juris Doctorate from the Southern California Institute of Law; and,
- Rick Hajas who has an A.A in political science from Ventura College, a B.A.in political science from UCSB and a Juris Doctorate from the Southern California Institute of Law.

No geological, geohydrological, or hydrological report prepared by a registered or certified geologist, geohydrologist, hydrologist, professional geologist, or engineering geologist is included as a technical appendix to the DEIR. This is true despite the fact that the proposed project will:

- Result in the drilling of 60 wells in an oil field through which an Alquist-Priolo Earthquake Hazards Act Zone runs.
- That the wells will be drilled in three groups of twenty wells, drilled in two rows of ten wells spaced 8 feet apart, compared to historical drilling operations where the wells were drilled much further apart.
- That the wells will extend to horizontal depths of between 3,000 and 10,000 feet, compared to previous wells within the field that were limited to between 1,000 and 6,000 feet.

OSLDF-107

- That the wells will be slant drilled, compared to previous wells within the oil field that were exclusively vertically drilled.
- That the proposed first phase project will result in the production of up to 10,000 bpd of oil as compared to 800 bpd historically.
- That oil extraction at a rate more the 12 times that of the prior operation will occur from what is likely to be a Swiss-cheese of wells.
- That the DEIR does not include a three-dimensional model showing the subterraneous paths of the wells.

The DEIR thus leaves the public and the City's decision-makers to rely on the representations of Matrix Oil, the company that brought the public the 2005 fatal Honolulu Terrace drilling fire, for proof of the geologic and hydrological safety of proposed operations. Although it is not uncommon for generalist members of an EIR team to prepare the summaries of the detailed technical studies prepared by credentialed experts contained in appendices to an EIR, as a way of providing the information in a more reader-friendly fashion within the body of the DEIR; it is highly unusual that apparently very few technical studies were done. It is truly astonishing with a project that intends to extract thousands of barrels of oil and gas from an open space preserve located in close proximity to residential homes and schools that no detailed geotechnical, geohydrological and hydrology technical studies analyzing the proposed project are contained in the appendices to the EIR.

The DEIR does identify the presence of:

- artificial fill;
- landslides;
- surficial failures;
- slopes ranging up to 1:1 which according to DEIR page 4.4-27 "are not surficially stable in general;
- and a major fault less than 2 miles from the project sites

OSLDF-108

However, the DEIR lacks any analysis of whether fault traces are present on the project site or of the potential of this project, which includes oil pumping activity, to result in ground subsidence. These factors and the basic characteristics of the project activity require a detailed geotechnical evaluation of all components of the project. This is not provided in the DEIR.

Page 4.4-10 of the DEIR states that the "Project Site is not located within a liquefaction zone delineated by the Department of Conservation Seismic Hazard Zones Map (April 1998)."

OSLDF-109 As shown on **Figure 7**, on the following page, this is not true. Liquefaction hazards (shown in green on Figure 7) are present in the vicinity of the Central sites and along portions of the access route. The DEIR on page 4.4-22 notes that the areas of La Canada Verde Creek were screened as an area that may be prone to liquefaction, lateral spreading or seismic settlement and that as such, "all construction and improvements to be situated in and adjacent to these areas will require additional studies and mitigation measures to remediate the hazards." The DEIR then improperly defers both the analysis and the mitigation. This section of the DEIR contains numerous examples of improperly deferred analysis and improper deferral of mitigation.

OSLDF-110 The DEIR's analysis of geological and hydrological impacts is thus so fundamentally and basically inadequate and conclusionary in nature that these sections of the DEIR must be completely redone following full evaluation of the potential geological, hydrological and seismic safety of the project as a whole and the first phase of the project included in the current Conditional Use Permit application, including subsurface components such as the wells. An analysis by generalists who lack the necessary qualifications does not constitute substantial evidence. The analysis must be prepared by independent personnel who are actually trained, qualified and licensed in geology, hydrology and/or geohydrology.

5.2.5 Noise and Vibration

OSLDF-111 The DEIR identifies the following **Significant Unavoidable Noise Impacts** of the proposed project:

☑ N.3 - Drilling activities would increase vibration in the area.

The DEIR also identifies Significant Unavoidable Impact N.5 – "Concurrent operational activities at the Central Processing Site and drilling activities at the Central Processing Well Site during periods of Project, or drilling at the East Well Site would increase noise levels in the area."

We would note impact N.5 is actually two separate Significant Unavoidable Impacts:

☑ Drilling at the East Site would increase noise levels at the Deer Loop Trail receptor or near the East Site beyond the significance criteria of 5 dBA during the 5-year drilling period and re-drills.

☑ Concurrent operational activities at the Central Processing Site and drilling activities at the Central Wells Site would increase noise levels beyond the significance criteria.

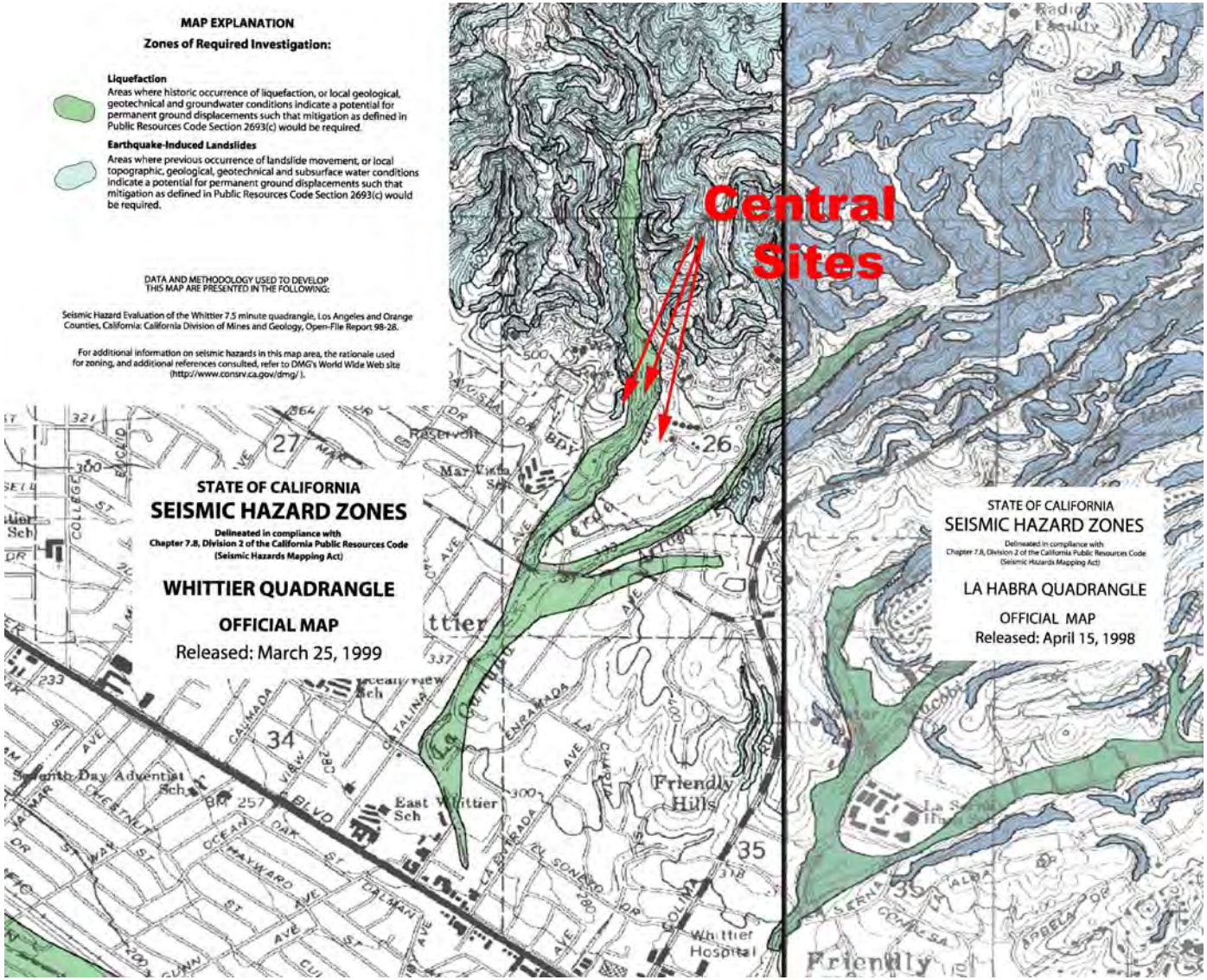


FIGURE 7 – LOCATION OF SEISMIC HAZARDS IN THE PHASE 1 PROJECT VICINITY

OSLDF-112 Page 4.5-17 of the DEIR indicates that the City of Whittier Municipal Code which had contained text that prescribed specific noise limits, similar to the County Code was replaced in January of 2010 with language which is more general in nature and which does not prescribed specific noise limits. Please specify the nature of the CEQA analysis which was conducted for this change in the Municipal Code.

OSLDF-113 According to DEIR page 9-1 of the DEIR the noise and vibration analysis was prepared by Greg Chittick who has a B.S. and M.S. in mechanical engineering. Did an acoustical engineer participate in the noise and vibration analysis?

OSLDF-114 DEIR pages 4.5-1 to 4.5-10 include a good background discussion on sound and vibration. DEIR page 4.5-11 indicates that noise readings were taken at six locations around the perimeter of the proposed project site for three periods of up to 1 hour each over a 24-hour period. Please provide the dates, times and actual durations of noise monitoring. Was noise monitoring conducted on the weekend or on a weekday?

OSLDF-115 Whittier Area Co Op Education operates the school located at 8036 Ocean View Avenue. Given the proximity of a school use to the phase 1 project site, the Los Angeles Unified School District (LAUSD) noise standards for school sites should also be used for purposes of analyzing impacts to the nearby school use, as they provide standards for interior noise levels. The LAUSD Office of Environmental Health and Safety (OEHS), has established maximum allowable noise levels to protect students and staff from exposure to excessive noise impacts in terms of hourly L_{eq}. The Standard states that: "Where economically feasible, new school design should achieve classroom acoustical quality consistent with the American National Standards Institute (ANSI) standard and in no event exceed the current California High Performance Schools (CHPS) standard of 45 dBA." The DEIR analysis should address whether acceptable interior noise level at the nearby school can be maintained. Based on the information contained on DEIR Tables 4.5-9 the proposed first phase of the project would result in a noise level of 59.7 at the school building. Interior noise levels are thus likely to exceed the standard for school buildings interiors. This is an unidentified impact of the proposed project. Based on the information provided in DEIR Table 4.5-10 with mitigation, noise levels at the school building would be above 45 dBA. It is unclear whether this is an exterior, or interior noise value.

OSLDF-116 Given that the Preserve is not a neighborhood park, but an area for largely quite uses, the use of the 70dBA standard for neighborhood parks is inappropriate and the analysis of impacts to parklands should be based on the County's standard for Noise-sensitive areas of 45 dBA. This is particularly true given the land was purchased with Proposition A funds, and County approval regarding Proposition A reparation is required.

OSLDF-117 Page 4.5-21 states that the "construction phase would generally be short term and the operational phase would be long term." This is not consistent with Figure 2-10 of the DEIR which shows the testing and design and construction phase of the project as lasting through month 38. DEIR page 4.5-21 states that construction would only generate noise during daytime. Please indicate where this is stated in the project description or required by mitigation.

OSLDF-118 Page 4.5-37 of the DEIR states that the noise levels included in the operational analysis assumes a wall of 8 feet surrounding each site. It is unclear from the project plans included in DEIR Appendix A whether an 8 foot wall surrounds the totality of each site. The DEIR should include a requirement for such a primary wall, as part of the mitigation, if this is an important component of the analysis.

OSLDF-119 DEIR page 4.5-38 for Impact N.4 states that: "Project operations would increase CNEL levels at multiple locations and the maximum hour noise levels would increase by more than 3 to 5 dBA at most locations, exceeding the limits defined in the General Plan and the thresholds. This would be a significant and unavoidable impact." However in the Executive Summary Impact N.4 is identified as Less Than Significant With Mitigation.

OSLDF-120 Please include the without-project baseline CNEL (dBA) and Leq Peak Hour dBA on DEIR Tables 4.5-9, 4.5-10, 5.5-12, and 5.5-13. Based on a comparison of the with-and-without mitigation tables for each of the potential noise impacts, it appears that the with-mitigation scenario is resulting in lower dBA values than baseline. Given the nature of the project and the mitigations, this makes no sense, and renders the analysis suspect. Please check and correct these values, which appear to indicate a problem with the model runs.

OSLDF-121 The DEIR needs to include similar with-and-without mitigation noise tables at receptor sites and similar with-and-without mitigation noise figures for Impact N.5 – concurrent operational and drilling activities. This is particularly important since this is the more real-world scenario.

OSLDF-122 Based on the noise contours shown in DEIR Figures 4.5-4, 4.5-6, 4.5-7,and 4.5-8 it does not appear that the noise analysis addressed project traffic along Mar Vista Street. An analysis of the project traffic on residential neighborhoods is important and needs to be included.

OSLDF-123 Mitigation Measure N-1a limits the hours of construction activities at the site. It is unclear from the wording of the mitigation and the analysis what all is included as "construction activities." We would note that drilling is a form of construction activity and the hours of drilling activity should be restricted per Mitigation Measure N-1a.

OSLDF-124 Mitigation Measure N-1c needs to be augmented to specify that the relocation of the Ranger Residence to a location deemed acceptable by the Preserve Authority shall be at the applicant's expense.

It should be noted that the Checklist included in the CEQA Guidelines includes the following impact category which is not fully addressed in the noise analysis:

☑ Would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

The first phase of the project would result in 500 metal-on-metal events per day according to DEIR page 4.5-24. These kind of intermittent noise events have the potential to

OSLDF-125

disrupt sleep. This potential for the first phase of the project to result in a substantial periodic increase in noise levels and the potential sleep disruption effect of the project need to be evaluated in the DEIR. The DEIR does acknowledge that annunciator and pipe clangs, even with the mitigation measures would be heard on a short duration basis, on DEIR pages 4.5-34 to 4.5-35. However the DEIR fails to analyze the impact of this noise on the long-term health of nearby residents. The first phase of the project is likely to result in a **Significant Unavoidable Impact** on humans and biological resources due to the substantial temporary and periodic increase in ambient noise levels associated with operations.

The noise analysis fails to address noise impacts on biological resources, either within this section or within the biological resources section.

5.2.6 Aesthetics and Visual Resources

The aesthetic analysis contained in the DEIR identifies four **Significant Unavoidable Impacts** due to the fact that:

- ☑ AE.1 Oil drilling equipment, including the drilling rigs, could degrade the public viewshed.
- ☑ AE.2 Oil processing equipment could degrade public viewsheds.
- ☑ AE.3 The installation of the access road and the use of the road could degrade public viewsheds.
- ☑ AE4 Elements of the proposed Project could intrude above viewshed ridgelines.

However, the analysis is incomplete and fails to provide the reader or the decision-makers with a sense of the full magnitude of the aesthetic and visual resource impacts.

As part of the setting section, and in order to help the reader to visualize what the well pad areas will look like, we would suggest including google earth views of the other Matrix operations in the area, either in the aesthetics section, the cumulative projects section or elsewhere in the document. This is particularly important because the wells are often described as being located in underground cellars. This may give the public and decision-makers the impression that they are not visible and are essentially camouflaged. This is not the case. **Figures 8, 9 and 10** provide views of Matrix's Honolulu Terrace and Sycamore Canyon sites are provided by way of example.

OSLDF-126

We would note that the Sycamore Canyon facility currently has only 9 wells, with a final 10th well under construction. According to http://whittieroil.com/frequently-asked-questions (see EXHIBIT C), Matrix indicates that it currently has 25 active wells in the area, which would imply 16 wells at the Honolulu Terrace site. According the website Matrix's existing operations produce approximately 350 barrels of oil per day along with natural gas. The Sycamore Canyon facility thus has half the number of wells that would be located at each of the phase 1 well sites,

FIGURE 8 – MATRIX OIL'S HONOLULU TERRACE FACILITY

FIGURE 9 – VIEW OF MATRIX OIL'S SYCAMORE CANYON FACILITY

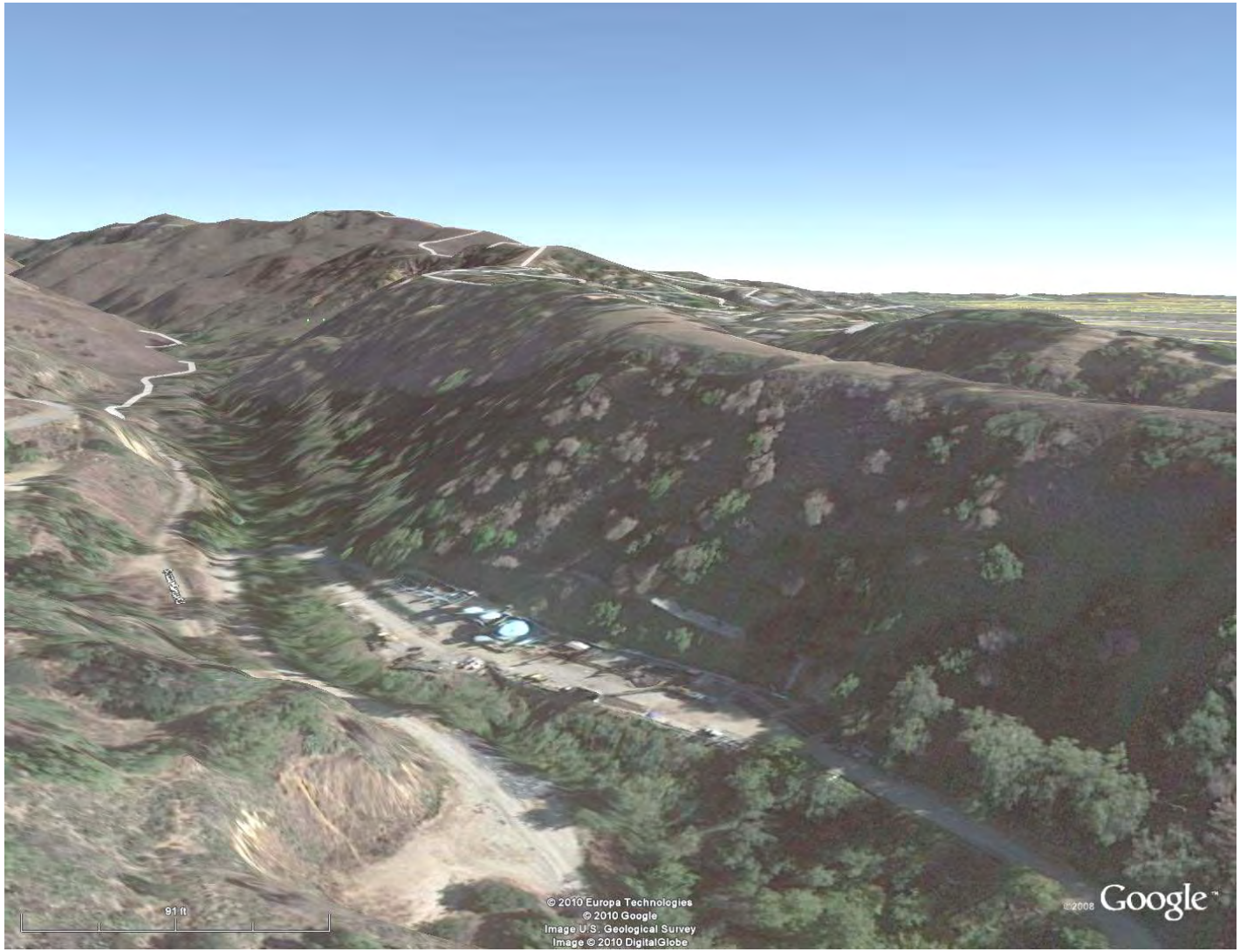


FIGURE 10 – VIEW OF SYCAMORE CANYON AND MATRIX FACILITY

or less than a sixth of the total phase 1 wells. Combined Matrix's two facilities pump 350 barrels of oil per day compared to the 10,000 bpd which would be pumped and processed within the Habitat Preserve during the first phase of the proposed project.

OSLDF-127 The first paragraph under Environmental Setting on DEIR page 4.6-1 fails to identify the locations along trails where the phase 1 project will be visible. This is important to an understanding of the project's impact on recreational users.

OSLDF-128 The discussion of viewshed on pages 4.6-2 to 4.6-3 assumes the human and head are fixed and unmoving. DEIR photosimulations are constrained as to viewshed because they fail to account for the fact that the human eye and head turn and create and perceived panoramic views of the environment. For example views from viewing locations 3, 4, 6 and 7 are likely to show all three sites which make up the Central area. This is exemplified in **Figure 11** below.

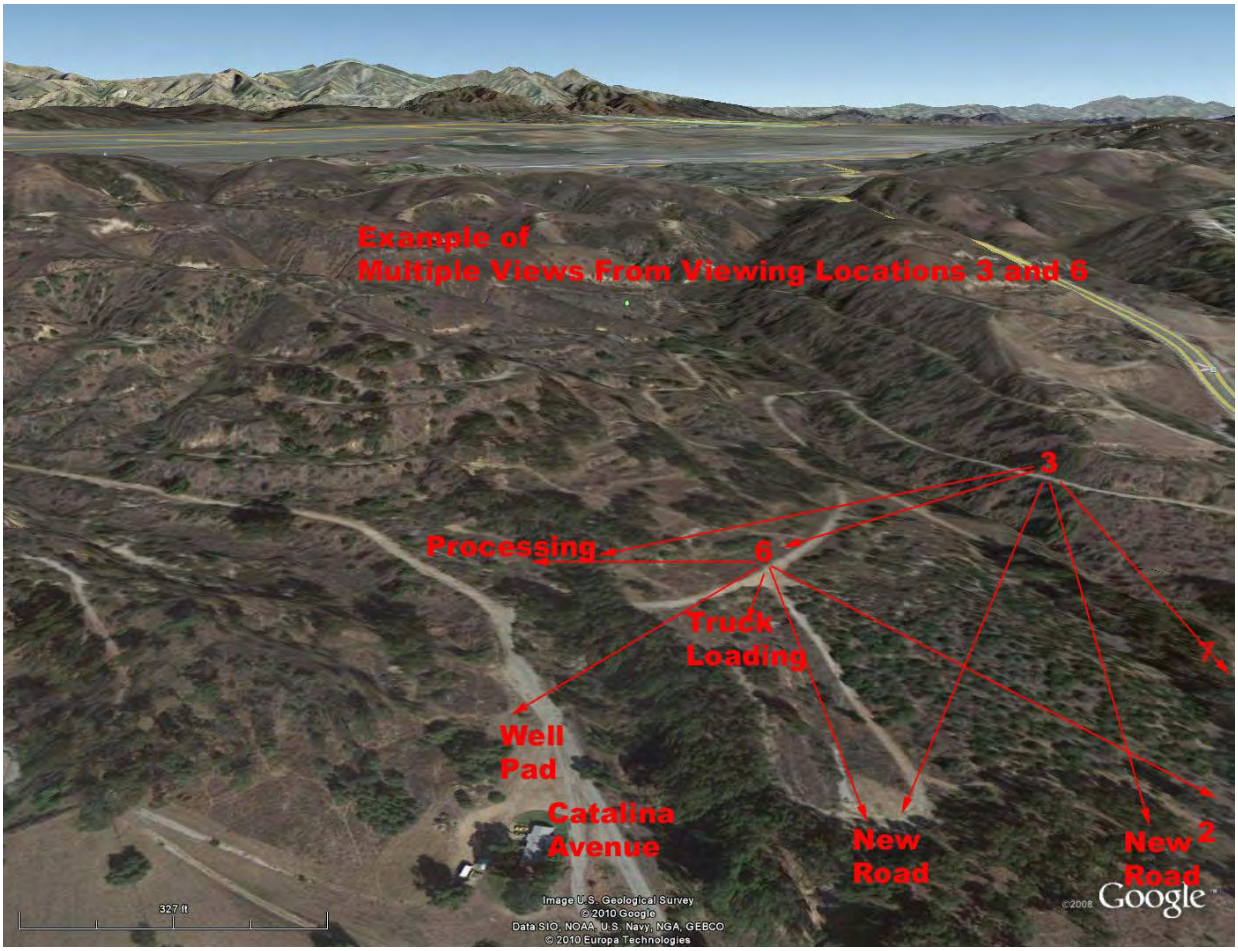


FIGURE 11 – EXAMPLE OF VIEWS FROM VIEWING LOCATIONS

OSLDF-129 The DEIR figures provide only one view from each location. View location 4, for example indicates that the photo was taken looking north towards the east well site. Wouldn't the central area also be visible from this location, if the viewer were to turn to the west? The project access road would likely be visible from View Area 3 if the viewer were to turn around. At each view location, all views in which project features would be visible from that location should be provided. This may require multiple photos at each location. The goal should be to provide a representation of the viewer's likely experience of the phase 1 project from each location. Also, in general, it is helpful if the reader has pre-and-post comparison views presented together.

OSLDF-130 Please indicate the width of the existing roadway shown in DEIR Figure 4.6-5. Section 4.6-16 also needs to describe the requirements of Mitigation Measures N-2a which requires enclosing the drill rig area with soundproof barriers 30 feet high on all sides and N-4 which requires installing a secondary 16-foot sound wall on the south and east sides of the gas processing plant. These features need to be included in the analysis.

OSLDF-131 The analysis should also include views and visual simulations from Colima Road, since this is a scenic corridor per page 4.6-16 of the DEIR.

OSLDF-132 The analysis assumes that surrounding vegetation, including 75-foot tall eucalyptus trees would remain in place. The analysis needs to address all vegetation which would be removed as part of project construction and due to fuel modification requirements. Any vegetation which would be removed must also be removed in the view simulations.

OSLDF-133 DEIR Table 4.6-3 should address all project features which would be visible to someone standing and rotating at each location. The table should indicate all project features visible from each location, not just the ones which would be visible in the single photo taken at the location. DEIR Figure 4.6-10 is very helpful in this regard. Similar figures should be provided for the other project features, such as the access roads and tanks.

OSLDF-134 DEIR Figure 46-12 appears to show a one lane road, rather than a road which is 20 feet wide plus fuel modification. This figure needs to be corrected and calls into question the accuracy of the other visual simulations. It seems likely that the Central Processing site would be visible in Figure 4.6-13. Clearly the truck loading facility would be visible from Location 6, as well as the access road if the viewer were to turn slightly to their left.

OSLDF-135 DEIR page 4.6-27 indicates that after the 5 years of project operations that the drilling rig would be brought back "only for maximum 3-month periods per year." This section of the DEIR fails to address the workover rigs with up to a 90-foot tall mast which would conduct up to 52 workovers per year for the remaining life of the project as described on page 2-47 of the DEIR.

OSLDF-136 The discussion of potential lighting effects fails to adequately address lighting requirements for nighttime worker safety during the various phases of the proposed project. The DEIR acknowledges that lighting impacts are significant and includes mitigation for those impacts, but there is no showing that the mitigation is compatible with worker safety

requirements and is actually feasible, given the 24-hour nature of some of the project phases and activities. In the absence of such a showing light and glare impacts are likely **Significant Unavoidable project Impacts**.

OSLDF-137 The analysis needs to consider the mitigation measures addressed in Section 4.6.4.1 of the DEIR on DEIR page 4.6-32, and the cumulative projects addressed in Section 4.6.5 of the DEIR on DEIR page 4.6-33. Section 4.6.4.1 identifies Significant Unmitigated Impacts of the mitigations. These need to be included in the analysis and the description of Unavoidable Impacts included in the Executive Summary. The cumulative analysis implies, but does not fully state, that the project in combination with recent past, present and reasonable foreseeable projects would result in a cumulatively considerable aesthetic impact. This **Unavoidable Cumulative Impact** needs to be clearly identified and included in the Executive and all summaries of project impacts.

5.2.7 Transportation and Circulation

OSLDF-138 The new intersection of Colima Road and the new project access needs to be included as a study intersection in the DEIR and Traffic Impact Analysis contained in DEIR Appendix E. Figures E-34 and Figures E-35 of the Traffic Impact Analysis need to be amended to include the new intersection, so that it is possible for the reader to track whether all project traffic actually reaches the site. This does not appear to be the case. For example, DEIR Table 4.7-13 indicates that there would be 14 inbound and 2 outbound trips in the a.m. peak period and 6 inbound and 10 outbound trips during the p.m. peak period during Phase 1 of project construction. However, Figure E-34 in Appendix E shows only 13 inbound trips during the a.m. peak, rather than 14, and only 9 outbound trips during the p.m. peak, rather than 10. Since Colima access would not exist during this phase, there appears to be missing trips in the distribution. The Trip Distribution needs to be reviewed in order to ensure that all project trips reach the site, in the analysis.

OSLDF-139 The discussion of Transportation Facilities on page 4.7-4 of the DEIR needs to provide a more complete description of Catalina Avenue north of Mar Vista Street. The description needs to indicate that this segment is currently unpaved and provide the roadway widths. The description also needs to indicate that the roadway segment travels along a riparian area and indicate the location of the culvert under the roadway segment. This section of the DEIR also needs to provide information on the grade of the key roadways or segments which will be used by project traffic. Grade is important to a determination of the appropriate Passenger Car Equivalent (PCE) to use in converting truck traffic to car equivalents for purposes of assessing impacts.

OSLDF-140 In DEIR Section 4.7.1.4 – given the 24-hour nature of some of the project components, the DEIR should have included 24-hour counts of the study intersections and roadway segments. This is particularly important given Mitigation Measure T-1c, as discussed later in this section of our comment letter. This section of the DEIR should also provide information on approved truck routes for the project area.

OSLDF-141 Section 4.7.2.2 on DEIR page 4.7-12 should identify the CMP intersections in the project area. These would include Whittier Blvd and Colima Road, Whittier Boulevard and Norwalk Boulevard, and Whittier Boulevard and Painter Avenue, as well as the CMP intersections in adjacent jurisdictions through which project traffic would pass, when accessing the freeways, which are also CMP facilities.

☑ Results in inadequate emergency access

OSLDF-142 Section 4.7.4 states that the project would include improved access for emergency equipment, but the DEIR does not include any analysis of the adequacy of emergency access to the sites and whether access meets Fire Department requirements for distance, turnouts, multiple access to and from a site, etc. As shown on the project plans, the Catalina Street and Colima Road access to the project sites do not connect. This would likely violate Fire Department requirements for multiple access and turnouts in Very High Fire Hazard Zones. This needs to be analyzed in the DEIR. If the Fire Department were to require that the two accesses connect, then this would likely require widening of the crossing of the watershed that runs along Catalina Avenue north of Mar Vista, and possible replacement of the existing culvert. This would result in additional biological resource impacts which are not addressed in the DEIR. Similarly, requirements for turnouts would affect the roadway design, grading, air quality and biological resource impacts. DEIR Section 4.7 fails to provide an analysis of site emergency access. This analysis needs to be added to the DEIR, given the potential for **Significant Unavoidable Impacts** of the project as currently designed.

OSLDF-143 Section 4.7.4.1 of the DEIR – Project Trip Generation – is inadequate, as it is based solely on information provided by the applicant about likely numbers of workers and trucks. Typically, if a project includes a use not addressed in the ITE or SANDAG trip generation rates, or an applicant believes that their project has characteristics which make trip behavior different than ITE or SANDAG rates, then a special study is conducted for similar facilities in order to derive trip generation rates and/or verify the rates which come from applicant-provided information. This was not done in this case, and renders the trip generation analysis contained in the DEIR highly suspect. The traffic engineer did not even conduct unannounced counts of Matrix's other two facilities in the area. Although they are substantially smaller than the proposed project, they could have provided some basis for verifying the information provided by the applicant. Traffic counts of the existing Matrix facilities in the area, and other similar facilities in the region, need to be conducted in order to determine the accuracy of the trip generation assumptions.

OSLDF-144 The Traffic Impact Analysis has correctly determined that it is necessary to convert project truck trips to Passenger Car Equivallent (PCE) for purposes of the traffic analysis. However, page 4.7-14 to 15 fails to include the rationale for the selection of a PCE of 2. This PCE is low, given both the size of some of the vehicles, and the grade of roadways in the area and the proposed access. Based on guidance in the Highway Capacity Manual and the existing grades in the area, a higher PCE should have been used for trucks accessing some of the key roadway segments and intersections. The traffic analysis is therefore likely to understate project impacts, and must be redone using PCEs consistent with HCM guidance.

OSLDF-145 No information is provided in the DEIR regarding the hours of work shifts during the various phases of the portion of the project analyzed in the DEIR. This needs to be done in order to determine whether the assumptions regarding the share of total daily trips which would occur during peak hours is correct. We would then request a mitigation measure, limiting the number of worker and truck trips to the numbers assumed in the analysis.

OSLDF-146 As noted on page 4.7-17, currently Mar Vista Street has large truck prohibitions. There is a reason for this. This is a residential street. In addition, it is likely that pavement may not be adequate to handle the larger vehicles associated with the proposed project. The DEIR needs to include a pavement analysis in order to determine how much the proposed project needs to contribute to strengthening the roadway or repaving following completion of key phases of the first phase of the larger project. DEIR page 4.7-17 also includes the statement that during phase 1, trucks accessing the site should be restricted from right turns in and left turns out to ensure that trucks would not traverse Mar Vista Street west of Catalina Avenue. The required signage and restrictions need to be included as a mitigation measure to ensure they occur, otherwise the potential for **Significant Unavoidable Impacts** west of Catalina Avenue remain.

OSLDF-147

☑ Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Based on the Traffic Impact Report, the phase 1 project would result in Significant Unavoidable Impacts at the following intersections:

- Catalina Avenue and Mar Vista Street in during the p.m. peak period during phase 1 and phase 2 of the project analyzed in the DEIR.

Despite the fact that the Traffic Impact Analysis for phase 1 of the proposed project identifies the potential for **Significant Unavoidable Impacts**, the DEIR does not identify any unmitigatible impacts. The reason for this is because the EIR preparers have added mitigation measures, Measure T-1c and T-1d, which are not included in the Traffic Impact Analysis prepared by a traffic engineer. These mitigation measures state:

T-1c: Limit Project related traffic to non-peak hours at the intersection of Mar Vista Street and Catalina Avenue and along the Mar Vista Street roadway segment during all phases. Non-peak hours are 9 a.m. to 4 p.m. and 6 p.m. to 7 a.m. Coordinate with the City of Whittier traffic division to determine applicable times.

T-1d: Limit truck and employee access via Catalina Avenue and Mar Vista Street during Phase 2.

Noise Mitigation Measure N-1a requires that all construction activities at the site to be limited to between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. on Saturdays. When Mitigation Measure T-1c is added to this measure, it means that construction work would need to be limited to between 9:30 a.m. and 3:30 p.m. in order to ensure that workers and trucks do not access the site via Catalina Avenue during the restricted period. There is no showing in the DEIR that this is acceptable to the applicant, and no enforcement mechanism is provided. For Measure T-1c to be effective, there would need to be a locked gate provided at Catalina and Mar Vista which is only open from 9:30 a.m. and 3:30 p.m, a posted sign with a phone number for residents to call to report truck and worker trips during the prohibited period or truck parking on residential streets in anticipation of the opening of the gate, a prohibition on parking by workers and trucks on streets outside the gate, and a very significant fine for any project traffic during the prohibited period. In order to encourage residents to report abuses, the fine should be shared in part with the person or organization reporting any demonstrated violations of the mitigation. In the absence is such requirements and agreement by the applicant, measure T1-c is likely to be infeasible and/or ineffective and the **Significant Unavoidable Impact** identified in the Traffic Impact Study would remain.

Similarly Measure T-1d is so vague as to be unenforceable. What does this measure mean?

OSLDF-148 The existing project trip distribution assumes 13 trips entering and 2 trips leaving the project site via Catalina Avenue during Phase 1 of the project analyzed in the DEIR, 22 entering and 1 leaving during Phase 2, and 7 entering and 1 leaving during Phase 3 during the peak period based on Figures E-34 and E-35 of the Traffic Impact Analysis in DEIR Appendix E. These trips would occur during other parts of the day, or during later phases of the project, might make use of the new access off Colima Road, if restricted from using Catalina except from 9:30 a.m. to 3:30 p.m. The DEIR needs to include analysis of this redistribution of trip behavior if Mitigations T-1c and d are retained.

OSLDF-149 Since Measures T-1c and T-1d would change both the temporal and spatial distribution of project trips throughout the 24-hour day, the effect of these restrictions needs to be analyzed in the DEIR as the measures are likely to redistribute traffic, resulting in either new or greater impacts during off-peak hours or during peak or off-peak hours at the other study intersections and roadway segments. Mitigation Measure T1-c thus necessitates that 24-hour counts be conducted at study intersections and roadway segments in order to determine if project traffic would result in significant impacts during off-peak hours. Given that Catalina and Mar Vista is located right by a school, it is likely that project traffic when combined with school and other daytime traffic will still result in a **Significant Unavoidable Impact** at this intersection in the off-peak. In the absence of the required analysis, impacts at this intersection remain Significant and Unavoidable.

The Traffic Analysis contained in Appendix E of the EIR prepared by a Traffic Engineer did not include Measures T-1c and T-1d. It specifies the need for the following mitigation measures to address project impacts and states the following on pages E-82 to E-83 (emphasis added):

Existing + Ambient + Project Impact Mitigation Measures

Under worst case conditions, significant impacts occur at two intersections, Catalina Avenue and Mar Vista Street and at Colima Road and Whittier Boulevard. A significant impact occurs at one street segment, Mar Vista Street west of Colima Road. The impacts occur during the temporary Phase 1 and 2. Potential access impacts are anticipated and mitigation is proposed to reduce this impact.

Mitigation Measures

Phase 1 – Drilling and Testing (Months 1-8)

Catalina Avenue & Mar Vista Street (AM & PM Peak Hour Southbound): Provide striping enhancements for north and southbound to convert the existing single lanes to a left and shared through/right lane. Parking will need to be restricted immediately north of the intersection. This impact will be reduced to a level of insignificance during the AM peak hour but will be reduced in the PM peak Hour. The PM peak hour impact **remains as a significant unavoidable impact**.

Mar Vista Street west of Colima Road (AM Peak Hour): The intersection of Colima Road and Mar Vista Street has adequate eastbound approach with a wider roadway and additional lanes. However, west of Colima Road to Catalina Avenue the roadway features bump outs at some corners and landscaped medians. These measures assist in reducing speed and creating an aesthetically pleasing environment. They also reduce roadway capacity. Temporary removal of these features during Phase 1 & 2 would increase traffic flow. They could then be reinstalled after completion of Phase 2.

OSLDF-150 **Access Improvement: Catalina Avenue north of Mar Vista Street:** - Provide a wider radius at the northeast corner to improve right turn movements. Widen the east side of Catalina Avenue north of Mar Vista Street to provide additional capacity for trucks during Phase 1.

Phase 2 – Design and Construction (Months 9-38)

Catalina Avenue & Mar Vista Street (AM Peak Hour Northbound & PM Peak Hour Southbound): Improvement measures implemented in Phase 1 to be retained with no further enhancements. This impact will be reduced to a level of insignificance during the AM peak hour but will be reduced in the PM peak Hour. The PM peak hour impact **remains as a significant unavoidable impact.**

Mar Vista Street west of Colima Road (AM Peak Hour): Improvement measures implemented in Phase 1 to be retained with no further enhancements. This impact will be reduced to a level of insignificance if implemented. Otherwise, a **significant unavoidable impact** occurs during Phase 2.

Access Improvement: Colima Road - Within existing right-of-way and project land, as part of the access road improvement for trucks off of Colima Road north of Mar Vista Street widen the west side of Colima Road provide a southbound right turn lane north of the access roadway for access to site and acceleration/merge lane south of the access road project for exits.

Colima Road & Whittier Boulevard (AM Peak Hour): Conduct a signal improvement by installing signal heads and timing for north & southbound right turn overlaps along with the east and westbound left turn phases. The impact will be reduced to a level of insignificance.

Phase 3 – Operations and Maintenance (Months 39 on)

Catalina Avenue & Mar Vista Street (AM Peak Hour Northbound & PM Peak Hour Southbound): Improvement measures implemented in Phase 1 to be retained with no further enhancements.

The effectiveness of the mitigation measures is displayed below in Appendix E, Table 26.

Given the infeasibility of Measures T-1c and T-1d, these mitigation measures need to be accurately incorporated into the DEIR. In addition, the DEIR needs to address the side-effects of these mitigation measures as well as those for cumulative impacts, including the elimination of parking in specified locations, the loss of bumps and medians on Mar Vista, and the access improvements to Catalina Avenue. A plan for the Catalina improvements needs to be included in the DEIR. How much widening would occur and what are the limits of this widening? How much parking would be lost due to the project and cumulative mitigation measures? In addition, the DEIR needs to provide a measure requiring reinstallation of any removed speed bumps or medians.

☑ Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Based on the Traffic Impact Report, the project in combination with cumulative projects would result in Significant Unavoidable Cumulative Impacts at the following eight intersections as noted on pages E-85-E-87 of the DEIR and quoted here:

Cumulative Impacts and Mitigation Measures

Under worst case conditions, significant cumulative impacts occur at eight intersections. A significant impact occurs at two street segments. Mitigation is proposed as detailed below.

Mitigation Measures

Phase 1 – Drilling and Testing (Months 1-8)

Hadley Street & Whittier Boulevard: Phase 1, 2, 3: Fair share contribution towards widening and improving the east and north leg of Whittier Boulevard at Hadley Street. Alter the existing striping to provide two southbound left turn lanes and a dedicated westbound right turn lane. These improvements are not likely to be accommodated within the existing right-of-way and additional right-of-way may need to be acquired. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

Catalina Avenue & Mar Vista Street: Phase 1, 2, 3: This is an impact which occurs with the project + ambient. Provide striping enhancements for north and southbound to convert the existing single lanes to a left and shared through/right lane. Parking will need to be restricted immediately north of the intersection.

Colima Road & Hacienda Boulevard: Phase 1, 2, 3: Fair share contribution towards signal system improvement of a southbound right turn arrow overlap with the eastbound left turn movement. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

Colima Road & Whittier Boulevard: Phase 1, 2, 3: Fair share contribution towards widening and improving the south leg of the intersection to provide a dual northbound left turn lane. Provide signal and striping improvements to provide north and southbound right turn arrow overlaps with the east and westbound left turns. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

Mar Vista Street west of Colima Road: Phase 1, 2, 3: The intersection of Colima Road and Mar Vista Street has adequate eastbound approach with a wider roadway and additional lanes. However, west of Colima Road to Catalina Avenue the roadway

features bump outs at some corners and landscaped medians. These measures assist in reducing speed and creating an aesthetically pleasing environment. They also reduce roadway capacity. In order to address potential future cumulative impacts this segment would need to not reinstall the roadways enhancements.

Colima Road north of Mar Vista Street: Phase 1, 2, 3: The access improvements noted in the project + existing analysis will reduce these impacts. These improvements include: Where feasible within existing and project land, as part of the access road improvement for trucks off of Colima Road north of Mar Vista Street widen the west side of Colima Road provide a southbound right turn lane north of the access roadway for access to site and acceleration/merge lane south of the access road project for exits.

Phase 2 – Design and Construction (Months 9-38)

Catalina Avenue & Whittier Boulevard: Phase 2, 3: Fair share contribution towards restriping southbound Catalina Avenue from a single approach lane to a left and shared through/right lane. This improvement can be implemented within the existing right-of-way but parking may need to be removed on a portion of Catalina Avenue north of the intersection. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

OSLDF-151

Three Palms Drive & Hacienda Boulevard: Phase 2 Only: Fair share contribution towards restriping the west leg of the intersection from a left, shared left/right and right turn lane to two lefts and a right during the PM peak hour only. The optional right should be available during the AM peak hour. This improvement would necessitate appropriate signage and signal controls to ensure understanding and compliance. This improvement is outside of the City of Whittier jurisdiction and would require approval by others. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

Colima Road & Mar Vista Boulevard: Phase 2, 3: Fair share contribution towards widening and converting the east bound left, through/left and right turn lane to two left turns, a through lane and right turn lane. This improvement may not be currently feasible within the existing right-of-way. Since this is a fair share contribution the **significant impact remains through Phase 1 unless implemented.**

Hadley Street & Whittier Boulevard: Same mitigation as Phase 1. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

Catalina Avenue & Mar Vista Street: Same mitigation as Phase 1.

Colima Road & Hacienda Boulevard: Same mitigation as Phase 1. Since this is a fair share contribution **the significant impact remains through Phase 2 unless implemented.**

Colima Road & Whittier Boulevard: Same mitigation as Phase 1. Since this is a fair share contribution **the significant impact remains through Phase 2 unless implemented.**

Mar Vista Street west of Colima Road: Same mitigation as Phase 1. **The significant impact remains through Phase2 unless implemented.**

Colima Road north of Mar Vista Street: Same mitigation as Phase 1. **The significant impact remains through Phase2 unless implemented.**

Phase 3 – Operations and Maintenance (Months 39 on)

605 Freeway SB Ramp & Whittier Boulevard: Phase 3 *Only* - Fair share contribution towards widening the offramp to increase the number of lanes from three lanes to four lanes providing two left turn lanes and two right turn lanes. This improvement requires approval of Caltrans. **The significant impact remains unless implemented.**

Hadley Street & Whittier Boulevard: Same mitigation as Phase 1. Since this is a fair share contribution **the significant impact remains through Phase 1 unless implemented.**

Catalina Avenue & Mar Vista Street: Same mitigation as Phase 1.

Colima Road & Hacienda Boulevard: Same mitigation as Phase 1. Since this is a fair share contribution **the significant impact remains through Phase 2 unless implemented.**

<u>Colima Road & Whittier Boulevard:</u> Same mitigation as Phase 1. Since this is a fair share contribution **the significant impact remains through Phase 2 unless implemented.**

<u>Mar Vista Street west of Colima Road:</u> Same mitigation as Phase 1. **The significant impact remains through Phase2 unless implemented.**

<u>Colima Road north of Mar Vista Street:</u> Same mitigation as Phase 1. **The significant impact remains through Phase2 unless implemented.**

<u>Catalina Avenue & Whittier Boulevard:</u> Same mitigation as Phase 2. Since this is a fair share contribution **the significant impact remains unless implemented.**

<u>Colima Road & Mar Vista Boulevard:</u> Same mitigation as Phase 2. Since this is a fair share contribution **the significant impact remains unless implemented.**

Key to avoidance of these impacts is that the required improvements be constructed and operational prior to the indicated project phases. Unless the applicant is responsible for funding and implementing the mitigation prior to when impacts would occur, impacts would remain Significant and Unavoidable. The City would have the discretion to provide for fair share reimbursement of the project applicant by other projects, but the required improvement would need to be in place before the indicated phases, in order for impacts to be avoided.

OSLDF-152

Although pages 4.7-47 to 4.7-48 of the DEIR describe these mitigation measures, the discussion in the DEIR omits the Traffic Engineer's conclusions contained in Appendix E, that impacts would remain significant unless the improvements are implemented, and none of the needed improvements or fair share contribution are required in the DEIR, included in the migration monitoring plan, or specified in the Executive Summary. Page 4.7-46 dismisses the cumulative impacts and mitigation measures, stating: "(t)hese improvements would be implemented through a fair-share cost sharing program with the cumulative projects. However, implementing mitigation measures T-1a through T-1e would limit traffic during peak hours and cumulative impacts would therefore be less than significant." This is absurd. First, the time restrictions included in T-1c and T-1d are either infeasible, or too vague to be enforceable. Second, even if measures T-1a through T-1e were effective, they only restrict access via Mar Vista and Catalina. Impacts at later phases of the project analyzed in the DEIR, when the Colima access was being used, and at intersections not affected by traffic routed to the Catalina access, would remain.

Regardless, impacts at the following intersections would likely be Significant and Unavoidable, because they are outside of the City, and implementation of the required measure in a timely fashion by the applicant is unlikely to be feasible, or because the required

OSLDF-153 improvements are likely to be infeasible for the reasons stated in the Traffic Impact Analysis and repeated above:

- ☑ Three Palms Drive & Hacienda Boulevard
- ☑ Colima Road & Mar Vista Boulevard: Phase 2, 3
- ☑ 605 Freeway SB Ramp & Whittier Boulevard

The DEIR thus fails to identify a number of Significant Cumulative Impacts and to include mitigation for those impacts which would ensure the measures are in place prior to impacts. The project would therefore result in **Significant Unavoidable Cumulative Impacts to the eight intersections** identified in the Traffic Impact Analysis.

- ☑ Exceed either individually or cumulatively, a level of service standard established by the county or congestion management agency for designated roads or highways.

Page 4.7-13 of the DEIR indicates that the Los Angeles County Congestion Management Program identifies a significant impact at a CMP intersection as an increase of 2 percent or more. The actual CMP threshold is: a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ .0.02), causing LOS F (V/C > 1.00); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02). The lead agency may apply more stringent criteria if desired.

OSLDF-154 The following intersections are CMP intersections within the City of Whittier: Whittier Blvd and Colima Road, Whittier Boulevard and Norwalk Boulevard and Whittier Boulevard and Painter Avenue. The DEIR fails to include a discussion of whether the proposed project would result in CMP impacts which are significant or cumulatively considerable at these CMP intersections. Based Table 27 of page E-88 of the Traffic Impact Analysis contained in Appendix E, the proposed project in combinations with cumulative projects would result in a significant cumulative impact to the intersection of Whittier Boulevard and Colima Road degrading an intersection operating at LOS F by 0.017 which rounds to 0.02, thus causing a **Significant CMP Impact** at this intersection. Given the cumulative impacts to the intersections of Catalina and Whittier and Hadley and Whitter, the potential exists for cumulative impacts to the other CMP intersections in the City and in the project vicinity. The DEIR needs to address the potential for impacts at these intersections.

- ☑ Substantially increase hazards due to a design feature or incompatible uses?

OSLDF-155 The DEIR fails to include any analysis of whether the proposed project and project mitigations would result in hazards due to a design feature or incompatible use. The proposed project would result in truck traffic using Mar Vista, a residential street where truck traffic is currently prohibited. This truck use is incompatible with residential use and poses a safety hazard to children along this street.

OSLDF-156 The Traffic Impact Analysis includes a mitigation measure for a significant impact to the street segment of Mar Vista Streest west of Colima Road which has been omitted from the DEIR due to the mistaken belief that project impacts can be mitigated by limiting the hours of use of the Catalina Avenue entrance to the project sites. This mitigation requires removing bump outs at some corners and landscaped medians. The DEIR should address a safety concerns which would result from the removal of traffic calming measures.

OSLDF-157 The proposed project would result in truck and car traffic in close proximity to the school at Catalina and Mar Vista street. The DEIR needs to include an analysis of potential traffic safety impacts of location of heavy truck uses in proximity to the school.

OSLDF-158 The proposed project would result in the introduction of truck and auto traffic within the Habitat Area in proximity to hiking activities. The DEIR needs to address potential safety hazards associated with the location of these incompatible uses in close proximity recreational activities.

OSLDF-159 The DEIR fails to include an analysis of site access and safety issues associated with both the Catalina and Colima accesses to the project sites. The Colima access is located across from a Church and park, and in close proximity to hiker access to the Preserve.

There is the potential for **Significant Unmitigated traffic hazard impacts** associated with the incompatible nature of project traffic and Habitat and nearby uses.

☑ Result in inadequate parking capacity

OSLDF-160 The DEIR fails to identify the locations for worker parking during the various stages of the project or to demonstrate that sufficient on-site parking for workers and construction vehicles is present on site. In the absence of any such analysis, parking impacts remain **Significant and Unmitigated**.

In addition, the DEIR fails to identify the location and amount of parking which may be removed as part of mitigation or project and cumulative impacts and to address whether this results in off-site parking impacts. This kind of analysis needs to be included in the DEIR.

☑ Conflict with adopted policies, plans or programs supporting alternative transportation.

There are several bike routes in the project vicinity, as shown in the following **Figure 12** which is a blowup to the Los Angeles Metro Bike Map. As shown in **Figure 12**, Colima Road is a Class 2 bike route. The DEIR fails to include any analysis of the project's compatibility with bike use in the area.

FIGURE 12 - LOS ANGELES METRO BIKE MAP FOR PROJECT VICINITY

OSLDF-161

Horseback riding is allowable on the Arroyo Pescadero Loop Trail, the Arroyo San Miguel Trail, and the Deer Loop Trail within the Habitat Preserve, as shown on DEIR Figure 4.14-2. The DEIR fails to include an analysis of the compatibility of project trucks and vehicles with this alternative form of transportation, which is often frightened by large noise trucks.

The DEIR fails to address the project's compatibility with adopted policies, plans or programs supporting alternative transportation and the potential for **Significant Unmitigated Impacts** due to compatibility issues with bike and horse transportation modes remains.

5.2.8 Hydrology and Water Resources

The hydrology and water quality analysis contained in the DEIR identifies one **Significant Unavoidable hydrology and water quality Impact** of the phase 1 project:

☑ A rupture or leak during oil drilling operations, from pipelines or other infrastructure, could substantially degrade surface and groundwater quality.

OSLDF-162 According to page 9-2 of the DEIR, the geology, hydrology and wastewater evaluation contained in the DEIR were prepared by:

- Rob Anderson who has a B.S. and a Juris Doctorate from the Southern California Institute of Law; and
- Rick Hajas who has an A.A in political science from Ventura College, a B.A.in political science from UCSB and a Juris Doctorate from the Southern California Institute of Law.

No geological, geohydrological, or hydrological report prepared by a registered or certified geologist, geohydrologist, hydrologist, professional geologist, or engineering geologist is included as a technical appendix to the DEIR. However, page 1-5 of the DEIR indicates that the EIR will be used by the:

- Regional Water Quality Control Board prior to issuance of a required Stormwater Pollution Prevention Plan;
- California Department of Fish and Game prior to issuance of a Streambed Alteration Agreement;
- U.S. Army Corps of Engineers prior to issuance of Section 404 – Dredge and Fill Permit and Section 10 – Activity in a Waterway permits.

OSLDF-163

The DEIR thus requires a decent analysis of the hydrological impacts of the proposed project, including the impacts of activities within a wetland area or watercourse.

The description of the hydrological setting is totally inadequate and fails to describe key drainages in the immediate vicinity of the sites which make up the first phase of the proposed project. The setting provides only the most minimal information about surface and groundwater for the 1,280 acre lease area, and no hydrological information specific to the areas where construction is planned, is provided in this section of the DEIR.

The discussion of impacts is also generic in nature. The DEIR identifies the potential for the following Significant Impacts:

☑ WR.1 An increase in impervious surfaces could increase runoff generated from the site. This increase could increase storm runoff and consequently impact water quality.

OSLDF-164

- ☑ WR.2 Site grading and drainage improvements would alter existing drainage patterns at the Project Site, which could increase erosion and impact water quality on or offsite.
- ☑ WR.3 Site grading and drainage improvements would alter existing drainage patters at the Project Site, which could increase runoff and cause flooding.
- ☑ WR.4 Leaks or other detrimental conditions could pollute runoff and significantly impact water quality.

The DEIR concludes these impacts could be mitigated to a level considered less than significant, but provides no analysis or supporting studies to support these conclusions. The reason for this is that no drainage plans exist for the phase 1 project, and thus no analysis of the plans is possible. The project will require detention basins, yet the size, capacity and location of the detention basins have yet to be determined. Given the lack of any supporting studies or analysis to support the conclusionary statements contained in Section 4.8 of the DEIR, these impacts remain **Significant and Unavoidable.**

The DEIR improperly defers both analysis and mitigation. All of the water resource mitigation measures are examples of improper deferral of mitigation. Mitigation Measures WR-2c and WR-3 highlight the problem with Section 4.8 of the DEIR and the project description. They are examples of the inadequacy of the project description and deferred analysis. They are also classic examples of improperly deferred mitigation:

- Mitigation WR-2c – A registered civil engineer experience in drainage shall prepare a hydrology study with the corresponding hydraulic calculations for interception, conveyance, and discharge of runoff. Based on these studies, prepare a drainage plan in accordance with City and County requirements.

- Mitigation WR-3 – A registered civil engineer experienced in drainage shall design and implement onsite detention facilities to reduce runoff to existing levels. Onsite detention ponds would attenuate the hydrograph so that an excessive peak flow would not occur during high intensity storms and there would be no increase in runoff. The project engineer shall conduct an onsite hydrology study to determine the approximate increase in storm runoff to accurately scale any onsite detention facilities.

DEIR Section 4.8 thus demonstrates that key features of the project have yet to be designed and located. Given that these detention facilities would be located within Critical and Core Habitat, they have the potential to result in **Significant Unmitigated Biological Resource Impacts** which have not been addressed in the DEIR. They would result in additional grading and construction activity which has not been addressed in the air quality analysis. The air quality analysis thus understates project impacts. They have the potential to result in impacts to the

riparian habitat. They would increase the acreage disturbed by the phase 1 project, further increasing the size beyond the maximum of seven acres allowed in the Lease Agreement.

Conclusions in this section of the DEIR are not supported by facts, reasonable assumptions predicated on facts, or expert opinion supported by facts. This section of the DEIR is woefully inadequate.

OSLDF-165 The following key hydrology and water quality issues are either not addressed in the DEIR or are inadequately addressed. Given that the proposed project involves oil and gas extraction from wells which would be drilled thorough the water table and water would be reinjected into the oil field, the total lack of any information on the project drainage and detention plan, and the absence of any analysis or demonstration of adequate enforceable mitigation, the potential for the following **Significant Unmitigated Impacts** remains.

- ☑ Violation of water quality or waste discharge requirements.
- ☑ Substantial depletion of groundwater supplies or substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
- ☑ Substantial alteration of the existing drainage pattern of the site area, including through the alteration of a stream or river in a manner which would result in substantial erosion or siltation on or off-site.
- ☑ Substantial alteration of the course of a stream or river, or substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on or off-site.
- ☑ Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- ☑ Require or result in the construction of new storm water drainage facilities or expansion of existing facilities which could cause significant environmental effects.
- ☑ Otherwise substantially degrade water quality.

5.2.9 Wastewater

OSLDF-166 Section 4.10 of the DEIR contains exactly the same inadequate discussion of physical setting and of surface water and ground water as Section 4.8 of the DEIR. The discussion of federal and state regulations is also the same. Perhaps the EIR preparer separated the two sections with a discussion of cultural resources in the hopes that the reader would not realize they were reading the same setting information.

OSLDF-167 Page 4.10.6 of the DEIR indicates that all wastewater generated during construction would be stored onsite within bermed basins. These basins would temporarily store all wastewater until vacuum trucks would periodically haul away any remaining unevaported wastewater. Where would these bermed basins be located? What are their size and depth? How much wastewater is anticipated to be generated? How frequently would vacuum trucks haul away wastewater and where would they take it? How and where would the removed wastewater be treated, and is there adequate capacity for treatment?

OSLDF-168 This section of the DEIR includes deferred analysis and mitigation in the form of Mitigation Measure WAS-1 which requires that a "Registered Civil Engineer shall evaluate the capacity of the existing sewer line system prior to any connections. A 7-day capacity performance test should be performed to determine baseline and peak flows to ensure the sewer has adequate capacity in the downstream areas." The DEIR mitigations do not address what happens if capacity is insufficient.

OSLDF-169 This section of the DEIR demonstrates the inadequacy of the project description. The EIR preparers and applicant currently do not know if the project will include a sewer connection, or will have to rely on mobile sanitary facilities. The air quality and biological resource evaluations didn't include evaluation of any trenching required for sewer installation, or consideration of off-site disruptions associated with sewer connection. The traffic analysis didn't include trucks servicing mobile sanitary facilities. Impacts are thus underestimated in the DEIR.

OSLDF-170 Conclusions in this section of the DEIR are not supported by facts, reasonable assumptions predicated on facts, or expert opinion supported by facts. This section of the DEIR is woefully inadequate. The two mitigation measures (WAS-1a and WAS-1b) which require a study to determine sewer capacity with no defined action, and provision of portable facilities for construction workers, are not sufficient to ensure that wastewater impacts over the life of the project are less than significant. The potential for the following **Significant Unavoidable Impacts** remains:

- ☑ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- ☑ Potentially require construction of new water or wastewater treatment facilities or expansion of existing facilities.

5.2.10 Land Use and Policy Consistency

The land use and policy consistency analysis contained in the DEIR identifies two **Significant Unavoidable land use and policy consistency impact** of the phase 1 project:

- ☑ LU.3 Views of drilling rigs, construction, and potential future operations could be incompatible with adjacent land uses.

OSLDF-171 ☑ LU.2 Concurrent operational activities at the Central Processing Site and drilling activities at the Central Well Site during periods of the Project, or drilling at the East Well Site, would increase noise levels that could be incompatible with adjacent land uses.

The analysis of land use and policy consistency contained in this section of the DEIR is bizarre. It is incomprehensible that the analysis finds the project consistent with the City's General Plan, Municipal Code and Zoning, or with the Resource Management Plan for the Habitat Authority. Clearly the proposed phase 1 project is incompatible with each of these key policy documents.

Whittier General Plan - By way of example, in terms of the City's General Plan, it is clear that the proposed project is inconsistent with a number of Goals and Policies. Here are just a few examples:

- **Environmental Resource Management Element**
  - "Goal 1 – Preserve or conserve natural and cultural resources that have scientific, educational, economic, aesthetic, social and cultural value."

    The proposed project would result in Significant Unavoidable aesthetic and biological resource impacts. It would result in impacts to federally designated Critical Habitat and RMP Core Habitat. This is a violation of Policy 1.3.

  - "Goal 3 – Secure a safe, healthful, and wholesome environment through careful planning and preservation of open space resources."

    The project would result in the loss of open space area. The proposed project also violates Policy 3.1 to "protect existing wildlife habitats thorough the preservation of open space" due to impacts to Critical and Core Habitat. The DEIR admits to 15 Significant Unavoidable Impacts and we have documented a number of other Significant Unavoidable Impacts in this letter. Policy 3.2, which states that "future hillside development will be permitted or approved only if it involves minimal adverse impacts on the environment and natural topograph," is also clearly violated by this project.

OSLDF-172

- **Public Safety Element**
  - The DEIR admits that the phase 1 project will result in Significant Unavoidable risk to the public in the form of injury or death from accidental releases from well drilling and processing operations (Impact SR.1). This would be incompatible with the Safety Element's goals and

policies regarding protecting residents and businesses from hazardous materials, such as Goal 4.

- **Noise Element**

  - The DEIR admits that the phase 1 project will result in Significant Unavoidable vibration and noise impacts (N.3 and N.4) on uses in the project vicinity. The phase 1 project is thus inconsistent with Noise Element Goals 1 and 2 and associated policies to "discourage noises which are detrimental to the public health and welfare and contrary to public interest."

The proposed project is thus clearly inconsistent with a number of General Plan goals and policies.

Whittier Municipal Code – The phase 1 project is also inconsistent with a number of Municipal Code sections. For example, given Significant Unavoidable Noise Impact N.5, and the location of the Central Processing Site and Well sites in proximity to both a school and single-family homes, it is clear that the phase 1 project would violate Section 83.20.40 of the City's Municipal Code regarding noise. Section 83.20.40 of the City's Municipal Code - Loud, annoying and unnecessary noises—Enumerated – of the City's Municipal Code states, in part (emphasis added) that:

> The city council finds the following to be loud, annoying and unnecessary noises, which are hereby declared to be in violation of this chapter; this list is deemed illustrative and shall not be construed in any way to be an exclusive or all-inclusive list of the noises prohibited by this chapter, it being the intent and purpose of this chapter to include and prohibit all noises of the character described in this section. Where no specific distance is set for the determination of audibility, reference to noise disturbance shall be deemed to mean plainly audible at a distance of one hundred feet from the real property boundary of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on the public right-of-way, public property, or private property open to the public. References to "adjacent" or "neighboring" residences or units in this section shall mean those residences or units located next to or in close proximity to the source of the noise, and no specific distance standard shall be required for such locations.
>
> J. Noise in Proximity to Schools, Courts, Churches or Hospitals. The creation of any excessive noise on any street adjacent to a school, institution of learning, church or court while such facilities are in use, or adjacent to any hospital

OSLDF-173

which unreasonably interferes with the work of the institution or which disturbs or unduly annoys patients of the hospital; however, this subsection shall not apply unless conspicuous signs are displayed in such streets indicating that there is located in the vicinity a school, hospital, court or church.

M. Late night disturbances of any kind that are plainly audible by inhabitants or occupants of any adjacent or neighboring residential properties or units, or are plainly audible at a distance of fifty feet from a real property boundary, that occur during nighttime hours, shall be prima facie evidence of violation of this subsection.

Requirements For A Conditional Use Permit Are Not Met - The project would not be eligible for a Conditional Use Permit since a number of the standards identified in Section 18.52.040 of the City's Zoning Code can not be met by the proposed phase 1 project, including the following requirements for a Conditional Use Permit:

- "2. That the site proposed for the use has sufficient access to streets which are adequate, in width and pavement type, to carry the quantity and quality of traffic generated by the proposed use."

  Pursuant to Mitigation Measure T-1e the project requires widening of Catalina Avenue north of Mar Vista and, as detailed in Section 5.2.7 of this comment letter, the proposed phase 1 project would contribute to a number of Significant Unavoidable Cumulative traffic Impacts. The project therefore does not meet this requirement.

- "3. That the proposed use will not unreasonably interfere with the use, possession and enjoyment of surrounding and adjacent properties."

  Even the DEIR admits that the proposed project will result in Significant Unavoidable noise, vibration and safety impacts. The project therefore does not meet this requirement.

- "4. That the proposed use will be compatible with the permitted uses of surrounding and adjacent properties."

  Even the DEIR admits that the proposed project will result in Significant Unavoidable noise, vibration and safety impacts for residents. The project therefore does not meet this requirement.

OSLDF-174

- "5. That the use will, as to location, operation and design, be consistent with the general plan, any applicable specific plan, and the Whittier zoning regulations."

As discussed earlier in this section, the proposed project is inconsistent with a number of General Plan goals and policies, and with the City's noise ordinance.

OSLDF-175 **Habitat Authority's Resource Management Plan** - Any project which is located within the Core Habitat Management Area of the Habitat Authority's RMP would not be consistent with the RMP, since the Core Habitat area is intended to be off-limits to public or industrial use, and to be maintained for the sole purpose of providing undisturbed habitat for wildlife.

Critical Habitat Designation – The proposed project would be constructed within federally designated and occupied Critical Habitat for the gnatchacher, which is habitat deemed by the federal government to be essential for the survival of the species. Critical Habitat designation is a component of a federal habitat conservation plan as specified in the federal Endangered Species Act.

Given these facts, the project would result in the following additional **Significant Unavoidable Impacts** which are not identified in the DEIR:

OSLDF-176

- ☑ The project would conflict with the applicable land use plan, policy or regulation of an agency with jurisdiction over the project, including portions of the City's General Plan, zoning and Municipal Code adopted for purposes of avoiding or mitigating an environmental effect.
- ☑ The project would conflict with the Habitat Authority's Resource Management Plan.
- ☑ The project would conflict with the U.S. Government's Critical Habitat designation of the area.

5.2.11 Fire Protection and Emergency Services

OSLDF-177 Page 4.12-2 of the DEIR states that the "Ranger who is stationed in the Ranger Residence near the Catalina Gate entrance to the Preserve is a trained wildand firefighter and could serve to alert the County Fire Department and possible take some preliminary steps in the event of a wildland fire." This ignores the fact that the Ranger Residence would be relocated per Mitigation Measure N-1c due to noise impacts and the potential for injury of death of the Ranger in the event of a well blow-out.

OSLDF-178 The setting section should discuss the fatal 2005 fire at Matrix's Honolulu Terrace facility. Information needs to be provided to the reader regarding the cause of that fire.

In terms of the significance criteria, the analysis needs to address whether or not the proposed project would:

OSLDF-179

☑ Expose people or structure to a significant risk of loss, injury or death involving wildand fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

OSLDF-180

The DEIR on page 4.12-17 states that the maximum flow capacities at the Catalina Avenue firewater connection are not sufficient to meet NFPA or LACoFD requirements, resulting in a significant impact. Mitigation Measure FP-1a then required that "fire water supplies be provided from either the Murphy Station 10-inch line or Suburban Water Supply along Colima Road or some other source that provided sufficient water supply rates." However, the DEIR provides no showing that mitigation is feasible and that sufficient fire water supplies are available for the phase 1 project sites. In the absence of such as showing, impacts remain **Significant and Unavoidable**. In addition, the DEIR needs to address the potential impacts of providing the needed fire water supply.

OSLDF-181

Page 4.12-17 indicates that based "on preliminary design drawings, the site appears to comply with most equipment spacing requirements. However, detailed design drawings are not yet available for the Project. Some equipment spacing could still create impacts, such as the location of the flare relative to process units or atmospheric storage tanks and distances from public areas, such as the hiking trails alongside the Truck Loading Facility." The DEIR in Mitigation FP-1c then leaves it to the oil field operator to ensure that design and construction complies with applicable codes and standards. This is insufficient, as compliance may require design changes which are not analyzed in the DEIR, and the responsibility is left to the applicant.

OSLDF-182

Does the proposed project include a water tank for emergency fire suppression purposes? If so, where is it located and what is the capacity? It seems unlikely that a project such as this, in a location such as this, would not be required to have a back-up supply of water for fire suppression purposes. Such a tank would add to the area impacted by the proposed phase 1 project, and should be addressed in the DEIR.

OSLDF-183

DEIR page 4.12-17 also indicates that "preliminary design documents do not include installation of fire detection and prevention systems, such as foam systems on crude oil storage tanks, flame detection and flammable gas detections systems" and that this would result in a significant impact. The DEIR then improperly defers mitigation in the form of Measure FP-1d which requires the operator to develop an emergency response plan and to address these issues in the emergency response plan.

OSLDF-184

Page 4.12-18 of the DEIR state that "Catalina Road and the new road would provide access to the site; these roads would comply with the LACoFD requirements for turning radius and grade." However, there is no explanation of the requirements, or any analysis based on the project plans, to determine whether the phase 1 project as currently designed actually complies with these requirements. This analysis needs to be added to the DEIR.

Page 412-18 also says that although "detailed plans associated with the proposed Project have not been developed, these plans would include Emergency Response Plans, Spill Prevention Plans and Oil Spill Response Plans. Additionally, Evacuation Plans would be

OSLDF-185 developed to ensure safety of the field employees. . . If these plans are not developed, this would be a significant impact." These plans should have been a part of the project description and included in an appendix of the DEIR and the DEIR should have included an evaluation of the adequacy of the plans. A mitigation measure requiring preparation of the plans, in the absence of a standard and a prohibition on the project moving forward without the plans, would have constituted improperly deferred mitigation. However, the DEIR doesn't even include any requirement for the preparation of adequate plans. Clearly impacts remain **Significant and Unavoidable** in the face of the wholly inadequate project description, analysis and mitigations.

OSLDF-186 This section of the DEIR fails to address the potential for the phase 1 project facilities to be impacted by fires not of their own making. The sites would be located in a Very High Fire Hazard area, and the DEIR should address the compatibility of the use with the fire hazard potential, and the adequacy of both emergency access and egress. This is not included in this section of the DEIR. In addition, there is no evidence that the DEIR consultants have consulted with the Fire Department, or that the Fire Department has reviewed the project plans.

OSLDF-187 The DEIR provides for only 30 feet of fuel modification. This is inadequate and is also inconsistent with Matrix's representations that they would be providing 50 feet of fuel modification (see **Exhibit J**).

This section of the DEIR is painfully inadequate. The potential for **Significant Unavoidable fire impacts remains**.

5.2.12 Public Services and Utilities

OSLDF-188 Page 4.13-2 of the DEIR states that the project would obtain water via a tie-in to the 6-inch water line at the end of Catalina Avenue. Section 4.12 of the DEIR found this line was insufficient to provide the water pressure required for fire suppression purposes. The DEIR needs to be consistent in its description of public services and public service connections.

The discussion of solid waste needs to determine whether of not the project as a whole, and the phase 1 project would:

- ☑ Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- ☑ Fail to comply with federal, state and local statutes and regulations related to solid waste.

OSLDF-189 Page 4.13-6 of the DEIR states that during the drilling phase, the phase 1 project would generate one 40-cubic yard container of trash. Is this in total, per day, per week, or per month? Page 413-6 of the DEIR also states that drilling each well would generate an estimate 660 cubic yards of drill cuttings. The DEIR does not state whether these drill cuttings contain hazardous materials or require special handling. The DEIR then states that this "material would be properly disposed of in an appropriate landfill." Which landfill, what is its remaining capacity, where is it

located and what is "an appropriate landfill?" The air quality analysis then needs to be updated to reflect the distance traveled to the landfill.

OSLDF-190

The discussion of construction and operational waste is also similarly vague as to the nature of the waste produced, and the location and capacity of the landfills to be used for disposal. The discussion lack sufficient information on which to base a conclusion of a less than significant waste-related impact, and must be rewritten to provide substantial evidence supporting any conclusions.

Mitigation Measure PS-1 requires: "limit grading, clearing and grubbing to preserve existing vegetation." Again, no standard is provided and the wording to so vague that the requirement is meaningless and unmonitorable. Given the vague nature of the analysis contained in the DEIR the potential for impacts remains **Significant**.

OSLDF-191

Page 4.13-8 lists the water requirements of the proposed phase 1 project and concludes that the project would not require a new offsite water supply or distribution facility, expansion of existing facilities, or new or expanded water entitlements, but provides no facts, reasonable assumptions predicated on facts or expert opinion supported by facts to support these conclusionary statements. In the absence of any support for the conclusions the potential for impacts remains **Significant**.

This section of the DEIR only addresses water supply and solid waste. The DEIR needs to include an analysis of the adequacy of the oil and natural gas transmission system that will be used to transport the oil and gas produced on site to the final destination. Is the capacity of the system adequate to handle the additional oil and gas which will be added by the project? If not, this is a **Significant Impact**.

The DEIR fails to address the following public service and utility-related impact questions:

- ☑ Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire service?

- ☑ Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police service?

- ☑ Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could

OSLDF-192 cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for natural gas transmission?

☑ Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for oil pipeline transmission?

☑ Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for park service?

☑ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

☑ Require of result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

☑ Require or result in the construction of new storm water drainage facilties or the expansion of existing facilities, the construction of which could cause significant environment effects.

In the absence of any analysis or data, the potential for **Significant Impacts** in these areas remains.

5.2.13 Recreation

The recreation analysis contained in the DEIR identifies **two Significant Unavoidable recreational impacts** of the phase 1 project:

☑ REC.2 Concurrent operational activities at the Central Processing Site and drilling activities at the Central Well Site during periods of the Project, or drilling at the East Well Site could affect recreational activities.

☑ REC.4 New drilling and operations would adversely affect public viewsheds.

OSLDF-193 Page 4.14-9 of the DEIR states that the "introduction of traffic along portions of the Arroyo Pescadero Trailhead would increase the likelihood of injury to recreational pedestrians

due to vehicle collisions, which would have an adverse effect on the overall recreational experience. We must commend the DEIR preparers on their capacity for understatement.

OSLDF-194 It is clear from Figure 4.14-2 of the DEIR that the proposed project will impact use of all three trails: the Arroyo Pescadero, Deer Loop and Arroyo San Miguel Trail. The DEIR fails to indicate how many feet of trails will be impacted and how many acres of the Preserve will essentially be foreclosed to recreational use. The DEIR fails to analyze the likely reduction in users, given the location of project facilities in what users hope represents a non-industrial experience. The DEIR thus fails to adequately describe the magnitude of the project's recreational impacts.

OSLDF-195 Mitigation Measures REC-1a requires the construction and maintenance of a pedestrian trail along the proposed new access road. Is there adequate right-of-way within the existing access design to provide for such a pedestrian trail? It does not appear that the air quality analysis, biological resource analysis, geotechnical analysis or other key sections of the impact analysis addressed construction of this new trail. Project impacts are thus understated across-the-board.

OSLDF-196 Mitigation Measure REC-1b requires a trail expert to develop an alternative pedestrian trail. Is this trail additional to the trail along the new access road? It does not appear that the air quality analysis, biological resource analysis, geotechnical analysis or other key sections of the impact analysis addressed construction of this additional trail. Project impacts are thus further understated across-the-board.

The DEIR fails to address the following key impact question:

- ☑ Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project requires compensation for the loss of lands purchased with Proposition A funds. The use of these compensation funds is clearly linked to the proposed project and can be considered a later phase of the project. The DEIR must address any impacts associated with the use of the public revenue generated by the proposed project.

5.2.14 Environmental Justice

OSLDF-197 The DEIR concludes that the proposed project would disproportionately impact minority population, particularly the Hispanic community. Given that the project results in Significant Unavoidable Impacts, the impact to this community remains **Significant and Unavoidable**.

5.3 SIGNIFICANT UNAVOIDABLE PROJECT IMPACTS

As identified in the DEIR the proposed project would result in 15 Significant Unavoidable Impacts. This comment letter identifies a number of additional Significant

OSLDF-198 Unavoidable project and cumulative Impacts. In addition, this comment letter identifies a number of reasons which the DEIR underestimates the severity of identified impacts. This comment letter also identifies those impacts assessments that are so fundamentally and basically inadequate and conclusionary in nature that meaningful public review and comment is essentially precluded. As is clear from the comments contained in Section 5 of this letter, the analysis contained in the DEIR is inaccurate and incomplete and substantially understates the significant impacts of the first phase of the project. As detailed in this comment letter, impacts are substantially greater than identified in the DEIR.

5.4 DEFERRED ANALYSIS AND MITIGATION

OSLDF-199 As detailed in **Section 5.2** of this comment letter, the DEIR includes numerous examples of both deferred analysis and improperly deferred mitigation. This is a fatal flaw of the DEIR. All of the mitigation measures included in the DEIR need to be reviewed and a full listing of measures which represent deferred analysis and/or mitigation identified and corrected.

6.0 INADEQUATE ALTERNATIVES ANALYSIS

According to part (a) of CEQA Guidelines Section 15126.6:

> (a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

Pursuant to the CEQA Guidelines, alternatives analyzed in the DEIR should therefore be feasible. First phase alternatives which, like the first phase of the proposed project analyzed in the body of the DEIR (see **Section 2.1** of this letter), violate the terms of the Lease Agreement regarding number of sites and allowed acreage, are not feasible alternatives. The infeasible proposed project and the infeasible site alternatives must be culled from the DEIR. Once this is done it is clear that the DEIR includes analysis of only one site configuration: the Consolidated Site Alternative. Therefore, there really is no alternatives analysis in the DEIR; rather the DEIR contains a very limited analysis (pages 6-27 to 6-41 of the DEIR) of a very poorly described OSLDF-200 Consolidated Site Alternative, which other than the No Project alternative, <u>may</u> be the only analyzed configuration which meets the Lease terms.

The range of alternatives considered in the DEIR thus fails the rule of reason test, and the DEIR does not foster informed decision making and public participation since the DEIR contains only one site configuration which may meet the terms of the Lease Agreement. In addition, it is not clear from the description provided in the DEIR that even the Consolidated Site Alternative meets the Lease terms.

Furthermore the descriptions of the alternatives are confusing and incomplete. The alternative analysis section of the DEIR provides separate analysis of the component parts of the one remaining alternative which constitutes improper piecemealing the analysis. This results in a meaningless analysis of the alternatives. The alternatives analysis and the DEIR are thus fatally flawed.

6.1 THE DESCRIPTIONS OF THE ALTERNATIVES ARE CONFUSING AND INCOMPLETE OR ABSENT

Sections 5 and 6 of the DEIR contain the alternatives analysis. Section 5 begins with a description of the screening analysis used to identify alternatives for analysis. The screening analysis looks at subalternatives to four of the key components of the proposed project:

1. Alternative Drilling and Production Sites (in Section 5.1.2 of the DEIR)- Five subalternatives were considered: (1) a Consolidated Central Site; (2) a savage Canyon Landfill Site; (3) an Upper Canada Canyon Consolidated Site; and (5) the Historical Chevron Processing Facility. The Consolidated Central Site and the Consolidated Upper Colima Road site were retained for further consideration and the other three subalternatives were screened out.

2. Alternative Access Roads (in Section 5.1.3 of the DEIR) – Three subalternatives were considered: (1) a Loop Trail Road; (2) a Landfill Road; and (3) Catalina Avenue access. Both the Loop Trail Road and the Catalina Avenue access were screened out. This is interesting since the proposed project includes Catalina Avenue access. Only the Landfill Road subalternative was retained for further analysis.

3. Alternative Truck Loading Facilities (in Section 5.1.4 of the DEIR) – Five subalternatives were considered: (1) a Savage Landfill Truck Loading Facility; (2) A Central Well Site Truck Loading Facility Site South; (3) an Upper Colima Road Truck Loading Facility Site; (4) a Preserve Parking Lot Area Site; and (5) An Integrated Truck Loading Facility. Subalternative 5, the Integrated Truck Loading Facility was the only loading facility alternative retained for further analysis and it was described as constructing the loading area within the processing area for the project, or any of the alternatives.

4 Alternative Pipeline Routes (in Section 5.1.5 of the DEIR) – Two subalternatives were considered: (1) Lambert Railroad Right-of-Way and (2) a La Habra Heights

OSLDF-201

Pipeline Alignment. Only the Lambert Railroad Right-of-Way subalternative was retained.

From the retained subalterantive components, the EIR preparers crafted two alternatives, in addition to the No Project Alternative, for analysis (see Section 6.1 of the DEIR):

1. The Consolidated Upper Colima Road with access through Arroyo San Miguel Trail and the truck loading facility directly off Colima Road analyzed in Section 6.1.2 of the DEIR; and

2. The Central Consolidated Site Alternative with access through the landfill road and the integrated truck loading facility within the Central Processing Site (analyzed in Section 6.1.3 of the DEIR).

Unfortunately the EIR preparers did not see fit to actually describe these alternatives (see Section 6.1.2 and 6.1.3 of the DEIR). Instead the DEIR preparers rely on the reader to piece together a picture of these alternatives from the description of the component parts contained in Section 5.1 of the DEIR. This is difficult since it is not clear what all of the component are, for these two alternatives. Moreover, the Consolidated Upper Colima Road alternative contains components, such access through Arroyo San Miguel Trail and a truck loading facility directly off Colima Road, which have either never been described, or in the case of truck loading directly off Colima Road, appear to have been screened-out (see DEIR Section 5.1.4.3 and 5.1.4.4).

In addition, the DEIR contains a separate analysis of the retained pipeline subalterantive: the Lambert Railroad Right-of-Way Alignment Alternative (Section 6.1.4 of the DEIR) and a separate analysis of the Landfill Road Alternative (Section 6.1.5).

In the absence of an actual description of the alternatives included in the analysis, the analysis is meaningless, since it fails the stated CEQA purpose to foster informed decision making and public participation. In addition, since it is completely unclear what is being analyzed, independent review of the analysis is impossible, and the conclusionary impact statements contained in Sections 6.1.2, 61.3, 6.1.4 and 6.1.5 of the DEIR are clearly not supported by substantial evidence. The alternatives analysis and the DEIR are thus fatally flawed.

The DEIR needs to clearly and completely describe any alternatives which are not screened-out, including all of the components, so the reader knows what is being analyzed and can conduct independent review.

6.2 INFEASIBILE PROJECT ALTERNATIVE

6.2.1 The Consolidated Upper Colima Road With Access Through Arroyo San Miguel Trail And The Truck Loading Facility Directly Off Colima Road Analyzed In Section 6.1.2 Of The DEIR

OSLDF-202 This alternative is not feasible. As described on DEIR page ES-6 and 5-11, under this alternative: "production would occur from a series of previously disturbed oil and gas production pads north of the Preserve parking lot and north of the proposed Project East Well Site adjacent to Colima Road. This alternative would encompass four different preexisting pads covering approximately 5 acres in addition to the Proposed East Site." The East Site per Table 2-3 of the DEIR includes 1.1 acres within the fenceline and 2.1 disturbed acres. The full acreage disturbed by the other four sites is not provided in the very limited description of the alternative provided on DEIR pages ES-6 and 5-11. However, given the limited description provided, this alternative is at least 6.1 acres in size but more likely greater than 7.1 acres. It includes five well sites as shown in **DEIR Figure 5-4** reproduced on the following page. As shown in the DEIR Figure 5-4, the well sites are separated spatially and topographically, making consolidation infeasible without significant landform modification and the creation of a site which is far more than the 6.1 acres of the individual pads. Like the proposed project, this alternative therefore does not meet the conditions of Paragraph 6.1 of the Lease Agreement (see Section 2.1 of this letter), as the number of sites exceeds three and/or the acreage would be greater than 7 acres. It is therefore infeasible.

OSLDF-203 Furthermore, the description of the alternative on DEIR pages ES-6 and 5-11 fails to identify the location of either the processing or trucking facilities associated with this alternative. Impact AQ.2 states that "(o)perational equipment would be the same since the gas and oil plants at the proposed Project Central Processing Site and the same number of wells and the same equipment would be used." This implies that the processing site would be the Central Processing Site. This would add yet another site to the alternative, raising the site number to 6.

OSLDF-204 Figure 5-4 does not show the location of the truck loading facility associated with this alternative, but does show possible access locations from Colima Road. Since the alternative would include truck loading directly off Colima Road, this would add yet another site to the alternative, raising the number of sites to 7.

OSLDF-205 This alternative is clearly inconsistent with the terms of the Lease Agreement and thus infeasible. This comment letter therefore does not spend time pointing out the many ridiculous and unsupported conclusions contained in the analysis of this alternative which is located on pages 6-4 to 6-26 of the DEIR, such as:

> "Impact AQ.1, related to construction emissions, would be the same as the proposed Project."

Figure 5-4 Upper Colima Road Consolidated Site

Note: View from the east.

DEIR FIGURE 5-4

This is a ridiculous statement given the difference in site access, topography, pad location, etc., as compared to the proposed project, and serves to illustrated the type of unsupported conclusions contained in the alternatives analysis.

6.3 INADEQUACY OF THE ANALYSIS OF THE REMAINING ALTERNATIVES

Once the infeasible Consolidated Upper Colima Road With Access Through Arroyo San Miguel Trail And The Truck Loading Facility Directly Off Colima Road Alternative is screened out, what is clear is that the DEIR contains no feasible project, and only two alternatives:

- The No Project Alternative; and,
- The Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing

What the DEIR does is next is to break each of the four components of the Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative up, and analyze each component separately. This amounts to improper piecemealing of the analysis of the alternative. The reader is left to try to figure out how to add the individual impacts of the components together in order to determine the impact of the Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative as a whole. This is completely unacceptable and renders the analysis of the alternative meaningless.

6.3.2 Consolidated Central Site with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative

OSLDF-206 The DEIR doesn't actually contain a detailed analysis of this alternative. What it does contain is an analysis of each of the four components. The exercise of trying to combine the four components together, to gain an understanding of the combined impact of this alternative for purposes of comparing it to the proposed project, is complicated by the fact that the analysis of each component assumes that the remaining components are the same as for the proposed project. Thus the analysis of the Consolidated Site Alternative (DEIR Section 6.1.3 – DEIR pages 6-38 to 6-41) assumes that the truck facility would not be integrated, access from Colima Road, and the pipeline route defined for the Proposed Project.

OSLDF-207 The analysis of the Lambert Railroad Right-of-Way Alignment Alternative (DEIR Section 6.1.4 – DEIR pages 6-38 to 6-41) varies only the pipeline route; remaining components are the same as the proposed project.

OSLDF-208 The Landfill Road Alternative (DEIR Section 6.1.5 – DEIR pages 6-42 to 6-65) analysis is intended to apply to either the proposed project or the Consolidate Site Alternative (see DEIR page 6-45). Section 6.1.5.7 presents traffic data for the Landfill Road alignment; however, the DEIR does not contain an appendix with a Traffic Impact Analysis for either this component routing, or for the Consolidated Central Site Alternative with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative as a whole.

OSLDF-209 The analysis of the Integrated Truck Loading Facility Alternative (DEIR Section 6.1.6 – DEIR pages 6-66 to 6-69), as stated on DEIR page 6-66, similarly applies for the proposed project and all of the alternatives.

OSLDF-210 The analysis of the environmental impacts of each of these components is based on the analysis of the environmental impacts of the "Proposed Project" contained in the DEIR. The analyses contained in DEIR Sections 6.1.3 to 6.1.7 of the DEIR thus suffer from the same errors and omissions as the analysis of the Proposed Project. These errors and omissions are detailed in Section 5 of this comment letter. All of the comments contained in Section 5.2 to 5.2.14 of this comment letter are also true for the analysis of the components of the alternative and we therefore hereby request that these same comments be addressed. However, we would request that they be addressed for the alternative as a whole, not for the component pieces, as an analysis of component pieces does not provide a basis for comparison of the alternative as a whole, to the phase 1 proposed project as a whole.

OSLDF-211 The sum total of the description of the Consolidated Central Site with Landfill Access and Integrated Truck Facility and Lambert Railroad Pipeline Routing Alternative is provided on DEIR page 5-6 and **Figure 5-2** which is reproduced on the following page. The DEIR provides:

- ☑ No project plans
- ☑ No site plans
- ☑ No roadway plans
- ☑ No infrastructure plans
- ☑ No drainage plans
- ☑ No operational plans
- ☑ No Traffic Impact Study prepared by a qualified traffic engineer
- ☑ No Geotechnical Study prepared by a qualified geologist
- ☑ No Hydrology Study prepared by a qualified hydrologist or geohydrolgist
- ☑ No Habitat Conservation Plan
- ☑ And, is lacking many of the other plans needed for a meaningful analysis

This is particularly troubling, given this alternative has been identified as the environmentally superior alternative and endorsed by Matrix Oil. Also troubling is the fact that the analyses of the components of the alternative contain a series of conclusionary statement unsupported by any analysis. No real analysis is provided for the alternative as a whole. The reader is left to mentally try to figure out how the various component analyses combine to provide a picture of the biological, aesthetic, etc., impacts of the alternative as a whole. A comparison of the impacts of this alternative and the proposed project is thus meaningless.

Figure 5-2 Consolidated Central Site

DEIR FIGURE 5-2: CONSOLIDATED SITE ALTERNATIVE

6.3.3 No Project Alternative

The analysis of the required CEQA No Project Alternative is located on DEIR page 6-3. Here is the sum total of the analysis of the No Project Alternative:

> The No Project Alternative would neither install processing equipment nor conduct well drilling operations. Therefore, impacts would no occur and the area would remain in its current condition.

OSLDF-212 Both the description and the analysis of the No Project Alternative are woefully inadequate. What is the No Project Alternative? Does No Project mean that the Lease Agreement is canceled and there would be no potential for any further applications under the Lease Agreement, or does it mean that the phase 1 project as proposed would not go forward, but that the applicant would be free to try again with another Conditional Use Permit application?

This section of the DEIR should both detail all the impacts which would be avoided under this alternative, and all the General Plan, County, and RMP policies and objectives which would be furthered with continued maintenance of the area as preserve and for recreational purposes.

6.3.4 Environmentally Superior Alternative

OSLDF-213 Table 6-31 in Section 6.2 contains a comparison of the "Environmental Impacts for the Proposed Project and Alternative." However, the reader is left wondering what the alternatives are, and what combination of components are represented in the Table. Does the Table compare complete alternatives and if so, what combination of the four components make up each of the alternatives compared in the Table? Or does the Table compare the impacts of the phase 1 project as a whole to the just the two alternative site components? As presented in the DEIR, Table 6-31 is meaningless.

OSLDF-214 The discussion of the environmentally superior alternative in Section 6.3 is similarly confusing. It is difficult from the labels used for the alternatives, for the reader to determine which combination of the four components (sites, roadway, truck facility location, pipeline route) make up each alternative discussed.

OSLDF-215 Table 6-33 which compares impacts from the various alternatives is incomplete as it fails to address the additional impacts identified in **Section 5** of this letter.

OSLDF-216 The discussion of the Environmentally Superior Alternative in Section 6.3.17 of the DEIR (DEIR pages 6-86 to 6-87) fails to identify the No Project Alternative as the actual environmentally superior alternative. In addition, given the fact that there are no plans of any kind, beyond a few lines on a map, presented in the DEIR for the components which make up the Consolidated Central Site With The Landfill Road Access An Integrated Truck Loading Facility And The Lambert Railroad Right-Of-Way Pipeline Alternative, and no analysis of this specific

complete alternative in the DEIR, conclusions regarding the relative merits of this combination of components are speculative at best.

6.4 FAILURE TO CONSIDER LESS HARMFUL ALTERNATIVES

OSLDF-217

The DEIR fails to consider less harmful alternatives to the project as whole, or to the phase 1 project. For example, the DEIR should include evaluation of:

- Other locations within the preserve which are not Core Habitat;
- Drilling from locations exterior to the Preserve;
- Fewer wells resulting in one smaller pad, a smaller processing facility, shorter construction time, less traffic, noise, odor, hazards, etc.; and,
- Some combination of the above

6.5 DEIR ANALYZES ONLY ONE FEASIBLE SITE CONFIGURATION

OSLDF-218

Since both the proposed phase 1 project and the Consolidated Upper Colima Road With Access Through Arroyo San Miguel Trail And The Truck Loading Facility Directly Off Colima Road Alternative are not consistent with the conditions of the Lease Agreement regarding maximum acreage and/or numbers of sites, there is really only one project analyzed in the DEIR the: Consolidated Central Site With The Landfill Road Access, An Integrated Truck Loading Facility, And The Lambert Railroad Right-Of-Way Pipeline Alternative.

Matrix has endorsed this alternative, which is the defacto project, and is essentially asking the City to approve a phase 1 project in the form of the Consolidated Central Site alternative which has:

- ☑ No project plans
- ☑ No site plans
- ☑ No roadway plans
- ☑ No infrastructure plans
- ☑ No drainage plans
- ☑ No operational plans
- ☑ No Traffic Impact Study prepared by a qualified traffic engineer
- ☑ No Geotechnical Study prepared by a qualified geologist
- ☑ No Hydrology Study prepared by a qualified hydrologist or geohydrolgist
- ☑ No Habitat Conservation Plan
- ☑ Is lacking many of the other plans needed for a meaningful analysis
- ☑ Results in a minimum of 6 Significant Unavoidable Impacts
- ☑ Lacks a CEQA analysis of the alternative as a whole

This is very frightening and certainly does not convey to an apprehensive citizenry that the City's decision-makers are properly considering the potential environmental consequences of the phase 1 project or the project as a whole.

7.0 INACCURATE GROWTH INDUCING IMPACTS ANALYSIS

OSLDF-219

The DEIR mistakenly concludes that the proposed project would not be growth inducing. The proposed project would result in the extension of infrastructure including water, electrical and potentially sewer into the Habitat Preserve. The City is pursuing the project because it believes that it represents a substantial new revenue source for the City. The project would set a precedent in the form of removal of Proposition A protections for open space within the County. The DEIR correctly concludes that the project would encroach into protected open-space, but incorrectly dismisses this growth-inducing element of the project because "oil-field activities and open space recreational activities and facilities would be designed to co-exist." Not only does the proposed phase 1 project meet one of the four criteria for a growth-inducing project cited on DEIR page 7-2, it meets all four criteria. The DEIR incorrectly concludes that the phase 1 project is not growth inducing.

8.0 REASONS FOR DENIAL

Given the fact that the proposed project violates the terms of the lease agreement, the fact that the EIR is a clear example of post hoc rationalization, and the fatal flaws in the DEIR, the City Council should reject both the EIR and the project as a whole.

8.1 REASONS TO REJECT THE EIR

As detailed in this comment letter, the DEIR for this project is fundamentally and basically inadequate and conclusory in nature. The document not only violates a number of key CEQA precepts, such as the prohibitions against piecemealing and post hoc rationalization, it also fails to identify a number of Significant Unavoidable Impacts, underestimates project impacts due to both failure to analyze the whole of an action and an inadequate and incomplete project description, and fails to address a number of the potential impact areas contained in the CEQA checklist. The document is so fundamentally and completely inadequate that it must be completely rewritten.

8.1.1 Recirculation Required

Pursuant to Section 15088.5 of the CEQA Guidelines, a Lead Agency is required to recirculate an EIR prior to certification if significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

This comment letter demonstrates that all of the conditions necessitating recirculation are present with the current DEIR.

8.1.2 The DEIR Is So Fundamentally Flawed That Even Recirculation Will Not Cure the Defects in The Planning and EIR Process

However, simply responding to comments and recirculating the DEIR will not cure the basic defects in the planning process. The City issued a Lease Agreement without conducting appropriate environmental review or adequately considering the environmental, legal, economic, political and social consequences of the action. The only way to cure these fundamental breaches in the planning and EIR process is to cancel the Lease Agreement.

8.2 REASONS TO REJECT THE PROJECT

The proposed phase 1 project and the project as a whole do not meet a number of the City's objectives, as stated on DEIR page ES-1

As discussed in **Section 2.3**, since pursuant to Proposition A, the City should be required to reimburse the full revenue stream from the proposed project, and any use of the revenue would be limited to Proposition A uses as specified in Section 16(a) of the authorizing statute under Proposition A. The City's objective of generating a substantial, long-term income stream for the City can not be met.

Several years ago, the City told the public in its published briefing on the project (See **Exhibit E**) that if, and only if, the project can be appropriately designed to meet the City's goals of absolute open space protection and preservation, would the City then consider the minimum drilling of test facilities to evaluate the potential for the extraction of these sub-surface minerals." The project will result in a loss of Critical and Core Habitat. A project with at least 6-15 significant unavoidable impacts doesn't meet this goal.

The proposed project is located within the Core Habitat portion of the Preserve, and will directly impact the viability and value of the Habitat Preserve. According to the Habitat Authority's comment letter on the DEIR, the Habitat "Preserve is a public investment of over $48.5 million dollars, of which $30.3 million was invested by the Habitat Authority, for acquisition (1,880 acres) for the purpose of biological preservation." The phase 1 project and the project as a whole do not meet the City's objective of minimizing environmental impacts on the Preserve.

Furthermore, as noted in *Maintaining Ecological Connectivity Across the "Missing Middle" of the Puente-Chino Hills Wildlife Corridor* (Conservation Biological Institute, 2005):

> The Chino and Puente Hills form a peninsula of wild uplands that jut from the Santa Ana Mountains into the heart of one of the largest unbroken urban areas in North America. Created by shifting Earth plates, this peninsula of wild in a sea of development supports a surprising diversity of native wildlife. Mountain lions still hunt mule deer in the area's diverse mosaic of grasslands, chaparral, coastal sage, and oak and walnut woodlands; roadrunners, California gnatcatchers, northern harriers, and other birds in decline throughout Southern California still persist here; as does a remarkably rich reptile and amphibian fauna.
>
> Maintaining this diversity, and the web of healthy ecological interactions it represents, presumably requires keeping this range of hills fully connected by wild habitats along its 42 km (26 mi) length. Severing connections or blocking movement along this corridor with roads or housing projects threatens to extirpate species from this urban reserve system and degrade ecological health throughout this range of hills - thus eliminating a remarkable ecological classroom within easy reach of millions of people craving a connection with nature.
>
> This loss would be doubly unfortunate given the tremendous public investment already made to conserve and restore biological open space and unfettered wildlife movement through this range of hills - from the Coal Canyon wildlife underpass at Highway 91, through Chino Hills State Park, Powder Canyon, Schabarum Park, and other private and public open space dedications to the western end of the Puente Hills (known locally as the Whittier Hills[1]). According to the California Department of Parks and Recreation, nearly a *quarter billion dollars* have already been expended or committed to acquiring and restoring natural open space in the Puente-Chino Hills Wildlife Corridor (http://hillsforeveryone.org/wildlife-corridor/state-investments.html). But the benefits of these existing investments is severely threatened by proposed development projects - including new roads, housing developments, golf courses, and reservoirs.

The proposed phase 1 project and the project as a whole, would impact the value of this corridor and the nearly quarter billion dollar investment in its preservation.

The proposed project results in Significant Unavoidable noise and vibration impacts. It therefore does not meet the City's objective of minimizing noise impacts to surrounding areas.

As detailed in the Traffic Impact Study included as a technical appendix to the DEIR, the phase 1 project will result in a number of Unavoidable Cumulative traffic impacts. It therefore does not meet the City's objective of minimizing traffic impacts to surrounding areas.

As shown in Figure 4, the proposed phase 1 project and alternative would be located in Core Habitat of the Preserve. The phase 1 project does not meet the City's objective of minimizing impacts to the functioning of the Core Habitat of the Preserve.

The proposed phase 1 project would introduce industrial uses into a recreational area, disrupting not only the area, but requiring the construction of new trails to by-pass impacts to three existing trails. The proposed phase 1 project and alternatives, and the project as a whole, do not meet the City's objective of minimizing impacts to operational, recreational, and educational opportunities within the Preserve.

The proposed phase 1 project and alternatives would strike a blow to the heart of the Core Habitat area of the Preserve. The proposed phase 1 project and alternative and the project as a whole do not meet the City's objective of facilitating the long-term preservation and enhancement of the Preserve's ecological resources and native habitat

The proposed phase 1 project would result in Significant Unavoidable safety risks to residents. The proposed phase 1 project and the project as a whole do not meet the City's objective of maintaining reasonable fire safety levels for the community and open space.

The DEIR provides no remediation plan for the proposed project. Long-term remediation needs are unknown and costs are unclear. In addition, the City's potential liability from fires and other accidents is unclear.

The proposed project will impact residents directly and will interfere with their enjoyment of private and public property. The project will also impact some residents economically. According to the Socioeconomic Study contained in Appendix H of the DEIR, the residents in the immediate area of the project may experience a combined decrease in home value of $2.2 million dollars. However, the analysis notes that it does not take into account the specific property value loss and the subsequent financial impact on individual property owners within the City. In addition, this study underestimates the economic impact of the project on City residents because the analysis is based on assessed housing prices, rather than current and pre-recession market prices.

As detailed in Section 5.2.10 of this comment letter, the proposed phase 1 project and alternatives do not meet the conditions necessary for obtaining a Conditional Use Permit. At a minimum the Proposed Project would result in 13 Significant Unmitigated Impacts and the alternative project would result in 6 Significant Unmitigated Impacts. As detailed in this comment letter, both would in fact result in substantially greater impacts than identified in the DEIR.

The project applicant has not complied with the terms of the Lease Agreement. The Conditional Use Permit application which was submitted was not consistent with the limitations on number of sites and acreage contained in the Lease Agreement.

EXHIBITS

A Comment Letters On The NOP Requiring Responses
B June 5, 2001 Press Release (http://www.matrixoilcom/contents/matrix-acquires-whittier-fied)
C http://whittieroil.com/frequently-asked-questions
D http://www.matrixoil.com/partners
E March 12, 2008 ,Whittier Daily News, Briefing on the "City's Negotiations to Consider the Extraction of Minerals From City Property" (http://www.whittierdailynews.com/ci_8546758
F August 26, 2008 City Council Minutes And Agenda - Resolution Of Intention To Lease Property For Production Of Oil
G Lease Agreement
H October 28, 2010 City Council Minutes And Agenda For Award Of The Bid
I Plan Sheets Included In The Conditional Use Permit Application: 4202-000-1001, 4202-000-1002, 4202-000-1003, And 4202-000-1004
J http://whittieroil.com/environment-technology
K SCAQMD Violations Notices For Existing Matrix Facilities In The Area.
L Fire Incident Report – Matrix Facilities

Responses to Open Space Legal Defense Fund Comments

Number	Response
OSLDF1-1	The comment regarding other oil and gas operations by the Applicant in the area and environmental review for those projects does not include any specific comment on this Draft EIR, nor does it reference the proposed Project. Other oil and gas operations by the Applicant or others in the surrounding areas are considered as part of the baseline and for the purpose of evaluation of cumulative impacts. However, the proposed Project is irrespective of those other projects and is not considered an "expansion" of existing operations.
OSLDF1-2	The comment is unclear and not specific to what analysis the commenter believes should have been done by the City and the Habitat Preserve on appropriate locations for oil and gas production. The City and the Habitat Preserve however, conducted preliminary surveys in various areas throughout the field and provided input to the Applicant as to what areas were more acceptable for oil and gas development within the Preserve. As per the CEQA Section 15004, environmental analysis is being conducted at the earliest possible time, considering that only after having a detailed Project by the Applicant as a result of their CUP application, meaningful review could occur.
OSLDF1-3	The comment appears to be directed to the Habitat Preserve's Resource Management Plan and the fact that the document fails to include a discussion of the Sycamore Canyon oil and gas operations that occur within the Preserve. No specific comment is provided on the Draft EIR and no additional response is required.
OSLDF1-4	The definition of a Project under the California Environmental Quality Act (CEQA) means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA should occur as early as possible on a Project, this environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit (CUP) to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP was brought forth for the City's consideration. The Staff Report for consideration of the lease specifically stated that signing of the lease agreement did not guarantee that the successful bidder would be able to obtain a CUP once the environmental review is completed. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, *"Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment."* At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time.
OSLDF1-5	The comment regarding a failure to conduct a competitive bid process for the issuance of the lease that preceded the Conditional Use Permit application does not appear to address the Draft EIR and as such no additional response

	is required.
OSLDF1-6	Please see response to comment OSLDF1-4. The comment regarding a failure to conduct California Environmental Quality Act analysis prior to contract approval does not appear to address the Draft EIR and as such no additional response is required.
OSLDF1-7	While the City issued the Applicant a lease agreement, which is predicated upon the follow-up design of a Project, preparation of detailed Project Description and application for a Conditional Use Permit that needed to then undergo environmental review, which is being conducted under this document. Issuance of the lease did not constitute Project approval, nor did it bestow upon the Applicant any rights other than the ability to apply for the Project and have it be considered by decision makers once environmental review is conducted. Decisions made by the City at the lease stage have not prevented the EIR preparers from evaluating a wide range of alternatives to come up with the alternatives analyzed in the EIR. Equally, decision makers have yet to weigh in on the Project and as such, the final outcome of this process remains unknown. Decision-makers could deny the Project outright, choose to approve the environmentally superior alternative, mix and match from the different components of the alternatives as they see fit, or approve the Project as presented by the Applicant.
OSLDF1-8	No specific comments are made on the Draft EIR or how the commenter's claim of piecemealing has occurred, so no additional response is provided. Responses are provided below to specific comments on piecemealing as appropriate.
OSLDF1-9	The comment refers to the validity of the lease agreement between the City and the Applicant and does not provide any specific comment on the Draft EIR and therefore no additional response is required.
OSLDF1-10	The comment refers to terms of the lease agreement between the City and the Applicant, as interpreted by the commenter, and does not provide any specific comment on the Draft EIR and as such no additional response is required.
OSLDF1-11	The City received a number of comments during the scoping process and Notice of Preparation meetings with Responsible Agencies and members of the public. All comments received were collated and considered in the preparation of the Draft EIR as appropriate. California Environmental Quality Act does not require specific responses to Notice of Preparation comments as requested in the comment. Tables were provided as part of Appendix I detailing the location of where the comment was being addressed in the Draft EIR as appropriate.
OSLDF1-12	The definition of a Project under California Environmental Quality Act (CEQA) means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA should occur as early as possible on a Project, this environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit (CUP) to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP was brought forth for the City's consideration. The Staff Report for consideration of the lease specifically stated that signing of the lease agreement did not guarantee that the successful bidder would be able to obtain a CUP once the environmental review is completed. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA

	review. As stated in CEQA Section 15004, *"Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment."* At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. Compliance of the submitted Conditional Use Permit Project Description with the lease agreement is not a comment on the Draft EIR and, therefore, no additional response is required.
OSLDF1- 13	Compliance of the submitted Conditional Use Permit Project Description with the lease agreement is not a comment on the Draft EIR and, therefore, no additional response is required.
OSLDF1-14	Compliance of the submitted Conditional Use Permit Project Description with the lease agreement is not a comment on the Draft EIR and, therefore, no additional response is required.
OSLDF1-15	Compliance of the submitted Conditional Use Permit Project Description with the lease agreement is not a comment on the Draft EIR and, therefore, no additional response is required.
OSLDF1-16	Additional information and drawings have been included as part of Appendix A for clarification in response to this comment.
OSLDF1-17	The total amount of time slated for construction (Figure 2-13 include the Project schedule) is 2 years, not the 8 years mentioned in the comment. Disturbance during construction is considered to be temporary and mitigation measures are included throughout the document that require restoration of those areas disturbed during construction.
OSLDF1-18	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-19	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-20	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-21	The mitigation measure to widen Catalina Avenue has been replaced with requirements to limit parking along the east side of Catalina Avenue during Phase 1 to allow trucks to travel down the residential street. Modifications to the intersection of Catalina Avenue and Mar Vista Street by widening the turning radius have not been included in disturbed area calculations since it would be a very small area.
OSLDF1-22	The Project Description and various sections include a discussion of the areas that would be disturbed either as a result of the Project or as part of proposed mitigation measures.
OSLDF1-23	Additional detailed drawings are included as part of Appendix A, Project Description Design Data, in response to this and other comments on the Draft EIR.
OSLDF1-24	As stated in the quoted portion of the comment from the Project Description, the 7 acres refers to the above ground areas that would be used for drilling and processing oil and gas. This statement is accurate and needs no correction.
OSLDF1-25	Sufficient detail has been provided to analyze impacts for all phases of the Project, contrary to what is stated in the comment. Compliance of the submitted Conditional Use Permit Project Description with the lease

	agreement is not a comment on the Draft EIR and, therefore, no additional response is required.
OSLDF1-26	The Draft EIR provides analysis of the proposed Project and various alternatives. The analysis included is provided with a sufficient level of detail to be able to support the consideration of the Project by decision makers. The reference to the lobbyist is not a reference to the Draft EIR and as such it merits no response. The reference to AECOM's figure reflects noise contours that originate from the different aspects of the proposed Project.
OSLDF1-27	As stated in the comment the Project Description recognizes the need to resolve the limitations imposed by the use of the Proposition A funds for the original acquisition of the property. The 7 acres referenced in the lease agreements refers exclusively to lands that would be dedicated to oil and gas production and processing, and does not include other areas that maybe disturbed as a result of the Project. The issue of how many acres would need to be offset to the County per the Proposition A requirements are not the subject of the EIR and is to be resolved separately by the City and the County.
OSLDF1-28	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-29	Specific underground target locations and reserves information is considered to be proprietary and confidential and was not included as part of the EIR. However, EIR preparers had the opportunity to review data under a confidentiality agreement and geologic impacts were analyzed taking into consideration the drilling program proposed by the Applicant. Section 4.4, Geological Resources, discusses potential geological impacts and mitigation.
OSLDF1-30	The Applicant indicates that there will be a temporary bermed basin constructed after grading and forming for concrete foundations are completed, but prior to pouring of concrete at Project Site. The size of the basin and exact location will be shown on the grading plans and will comply with City-mandated Storm Water Pollution Prevention Plan and best management practices.
OSLDF1-31	The Applicant indicates that they intend to use Baker-type tanks for all mud handling during drilling. Mud would be brought in and mixed in tanks, and remain in those tanks until hauled off of the property. There could be rare circumstances where mud would be temporarily held within bermed basins that are protected by impermeable membranes. In all instances the mud will not be able to permeate into the ground. Mitigation measure WR-3a has been added to Section 4.8, Hydrology and Water Resources, to require the use of enclosed Baker-type tanks for all drilling muds storage.
OSLDF1-32	The Applicant indicates that there will be a temporary bermed basin constructed after grading and forming for concrete foundations are completed, but prior to pouring of concrete at each of the well pads. The size of the basins and exact location will be shown on the grading plans and will comply with the City-mandated Storm Water Pollution Prevention Plan and best management practices.
OSLDF1-33	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-34	The Project plans indicate the limits of grading in Appendix A. The extents vary depending on the slopes and requirements for retaining walls. These grading and disturbed areas were used to determine the impacted areas and vegetative types that would be impacted associated with construction.

OSLDF1-35	The Applicant's Project plans submitted with their application include fuel modification areas 20 feet from all pad limits and 100 feet from the office building. The County of Los Angeles Fire Department and the California Department of Forestry and Fire do not have requirements for fuel modification zones around well or processing sites, only from buildings. The Resource Management Plan does not specify fuel modification zone distances from well or processing sites.
OSLDF1-36	Tables 2-5 and 2-6 provide information on the numbers and types of vehicles accessing the site. Additional information has been added to clarify parking and staging areas and number of vehicles.
OSLDF1-37	As with most oil and gas projects, the impacts of decommissioning at the end of the Project life cannot be evaluated until the Project becomes economically unviable and decommissioning is imminent. At that time, additional environmental review and permitting would evaluate the potential impacts of the overall decommissioning of the Project, including well abandonment and restoration. Because decommissioning would occur at a later date, the baseline could not be determined now to evaluate relevant impacts. In addition, the nature of the decommissioning process would only be developed based on the needs of that specific Project at that time. Evaluation of decommissioning impacts is speculative at this time. However, decommissioning in the event that the Project proves uneconomical during the exploratory phase is discussed in the Project Description and impacts evaluated as appropriate throughout the document.
OSLDF1-38	Additional information has been added to Section 2.0, Project Description, in the Final EIR in regards to the Crimson crude pipeline system and the Southern California Gas Company natural gas systems.
OSLDF1-39	The South Coast Air Quality Management District and the City would review, approve, and oversee the odor minimization and monitoring plans. The plans would be required at the time of applying for the permits and not at the EIR stage.
OSLDF1-40	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-41	An acoustical analysis was conducted for the proposed Project and alternatives and the results of this analysis was the mitigation measures discussed in measures N-2a and N-4. The analysis utilized the modeling software SoundPlan, which can perform complicated analysis incorporating terrain and frequency effects, as well as enabling the addition of berms, walls and noise mitigation devices.
OSLDF1-42	Mitigation measure BIO-1d requires consultation with the U.S. Fish and Wildlife Service to obtain a take permit if needed. That determination will only be made by the U.S. Fish and Wildlife Service once the Applicant applies to them if the Project is approved. At that time, the U.S. Fish and Wildlife Service would conduct their process separate from this California Environmental Quality Act process.
OSLDF1-43	The definition of a Project under the California Environmental Quality Act (CEQA) means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA should occur as early as possible on a Project, this environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit (CUP) to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a

	subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP was brought forth for the City's consideration. The Staff Report for consideration of the lease specifically stated that signing of the lease agreement did not guarantee that the successful bidder would be able to obtain a CUP once the environmental review is completed. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, *"Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment."* At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. The analysis included in this EIR is for the Project Description submitted by the Applicant under their Conditional Use Permit application with the City of Whittier. If the Applicant decides to apply for something different from what is proposed in this Project Description, the Applicant must submit a separate application to the City and a separate environmental review process would have to be conducted for that project.
OSLDF1-44	The comment includes a number of assumptions that have no known basis. The analysis included in this EIR is for the Project Description submitted by the Applicant under their Conditional Use Permit application with the City of Whittier. If the Applicant decides to apply for something different from what is proposed in this Project Description, the Applicant must submit a separate application to the City and a separate environmental review process would have to be conducted for that project.
OSLDF1-45	As stated in the comment, the Project Description recognizes the need to resolve the limitations imposed by the use of the Proposition A funds for the original acquisition of the property. However, this statement is provided for informational purposes and no environmental impacts are expected to occur as a result of the administrative resolution of the Proposition A funding used to acquire the City's portion of the Preserve. The issue of how many acres would need to be offset to the County per the Proposition A requirements is not the subject of the EIR and should be resolved separately by the City and the County.
OSLDF1-46	As stated in the comment, the Project Description recognizes the need to resolve the limitations imposed by the use of the Proposition A funds for the original acquisition of the property. However, this statement is provided for informational purposes and no environmental impacts are expected to occur as a result of the administrative resolution of the Proposition A funding used to acquire the City's portion of the Preserve. The issue of how many acres would need to be offset to the County per the Proposition A requirements is not the subject of the EIR and should be resolved separately by the City and the County.
OSLDF1-47	Mitigation measure BIO-1d requires consultation with the U.S. Fish and Wildlife Service to obtain a take permit if needed. That determination will only be made by the U.S. Fish and Wildlife Service after the Applicant applies to them if the Project is approved. At that time, the U.S. Fish and Wildlife Service would conduct their process separate from this California Environmental Quality Act process.
OSLDF1-48	Cumulative impacts address the combination of the impacts of the Project evaluated in the EIR together with other projects causing related impacts.

	The California Environmental Quality Act (CEQA) Guidelines direct the Lead Agency to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review with related impacts or which result in significant cumulative impacts. The cumulative analysis is based on a listing of planned projects provided by area agencies. The oil drilling at Honolulu Terrance and Sycamore Canyon do not have impacts on the same resources as the proposed Project and would therefore not present cumulative impacts. The proposed Project is that described in the Application submitted to the City and as described in Section 2.0, Project Description. There is not oil development proposed for any other areas. If oil development were proposed in other areas within the 1,290 acres, then additional CEQA analysis would be required. Oil and gas pipelines that the proposed Project would tie-in to would not be affected by the increased throughput of gas. Release sizes and impacts are a function of the gas pipeline size, temperature, and pressure and, therefore, would not present cumulative impacts. Increased flow of crude oil through existing pipelines carrying crude oil would present a small, incremental increase in spill volumes and impacts over the existing potential for impacts if a release occurred, but the incremental increase in spill volumes would be small and systems located substantially downstream, such as Crimson pipelines and refineries, were considered to be outside the scope of the EIR.
OSLDF1-49	The analysis included in this EIR is for the Project Description submitted by the Applicant under their Conditional Use Permit application with the City of Whittier. If the Applicant decides to apply for something different from what is proposed in this Project Description, the Applicant must submit a separate application to the City and a separate environmental review process would have to be conducted for that project.
OSLDF1-50	The analysis included in this EIR is for the Project Description submitted by the Applicant under their Conditional Use Permit application with the City of Whittier. If the Applicant decides to apply for something different from what is proposed in this Project Description, the Applicant must submit a separate application to the City and a separate environmental review process would have to be conducted for that project.
OSLDF1-51	The Draft EIR describes the areas that are proposed to be impacted under the proposed Project Description within each of the environmental settings of each of the issues areas analyzed in the EIR. The settings described the general area of the Preserve and the specific areas to be impacted as a result of the Project. While the Project would mine the oil and gas resources under the 1,290 acres owned by the City of Whittier, the aboveground impacts are limited to those areas described in the Project Description. However, as appropriate, impacts to geological resources and other issue areas take into consideration the underground resources throughout the 1,290-acre site.
OSLDF1-52	The EIR analyzes the impacts of the Project within the areas directly impacted by grading and construction, and also the overall impacts on the Preserve as a result of the Project as described in the comment.
OSLDF1-53	Comment is unclear; however, the EIR analyzes the full extent of the proposed Project covered under the Applicant's Conditional Use Permit application.
OSLDF1-54	Calculations related to fugitive dust are based on Applicant-submitted

	information related to disturbed areas and the distances along dirt roads within the Preserve. Durations of activities are also based on the schedule in Section 2.0, Project Description. Many activities would not occur concurrently and therefore South Coast Air Quality Management District thresholds based on a designated peak day scenario are defined in Section 4.1, Air Quality.
OSLDF1-55	The fugitive dust emissions from the Colima Road pipeline installation would be generated by the disturbance of soils below the street by trenching and the track-out of soils onto streets. This area would be relatively small as each day cleaning of streets and filling of trenches and covering with steel plates would be required. The Colima Road pipeline installation is estimated to take 180 days.
OSLDF1-56	Total acreage and duration of construction, as well as total amount of cut and fill, have been provided by the Applicant in their application as well as the grading plans located in Appendix A.
OSLDF1-57	Many portions of the construction would occur sequentially and those separate emissions would not be additive for the peak day as the activities do not occur at the same time. Pad clearing would occur before test drilling. After test drilling and testing, then the access road would be constructed. After the north access road is constructed, equipment would be brought in via and pad grading would take place, followed by facilities construction. Section 2.0, Project Description, includes the construction schedule.
OSLDF1-58	The emissions levels with mitigation are shown in the detailed calculations in Appendix B, Air Emissions Calculations.
OSLDF1-59	An analysis of the Air Quality Plan consistency has been added to the Final EIR.
OSLDF1-60	The Project does not generate sufficient traffic levels to justify a carbon monoxide hot spots analysis. The trips generated by the Project are estimated to be a small percentage of area traffic., For example, an estimated 35,000 vehicles travel on Colima Road per day. The Project is estimated to generate 69 trips during construction and a maximum of 28 trips during operations. Generally, only projects that generate thousands of trips per day perform carbon monoxide hot spots analysis (e.g., housing projects).
OSLDF1-61	Odors are addressed in Section 4.1, Air Quality, and mitigation measures are proposed to substantially reduce the frequency and duration of odor events. Odor is primarily an issue related to humans and is considered an upset-type event. Impacts on biological resources would generate the same set of mitigation measures and impacts as discussed in Section 4.1.
OSLDF1-62	Odor complaints related to Honolulu Terrance are tabulated in Appendix H, socioeconomics and have been added to Section 4.1, Air Quality. Odor issues at Honolulu Terrace are similar to odor issues at Baldwin Hills Oil Field, except that residences are in very close proximity to Honolulu Terrace. There have been a number of complaints associated with the Honolulu Terrace facility. However, most of the complaints have come from residences within 500 feet of the facility (see Appendix H). Most of the proposed Project operations, particularly with the alternatives, would be more than 500 feet from residences. In addition, mitigation measures in Section 4.1, Air Quality, require measures to reduce facility odors that have been put in place recently at Baldwin Hills as part of the Community Standards District EIR. Odor impacts producing a nuisance would be considered a significant and unavoidable impact. Single odor events/complaints, or infrequent odor events, are not considered a nuisance. The history of Honolulu Terrance and

	Sycamore Canyon, both operated by the Applicant (see Section 4.1, Air Quality), has not generated a nuisance event, as defined by the South Coast Air Quality Management District as more than 6 confirmed odor complaints at one time. With mitigation, the frequency and duration of odor events would be substantially reduced. The odor plans would be required to be submitted and reviewed prior to issuance of permits and the initiation of drilling. The mitigation measures have been implemented on other oil field (i.e. Baldwin Hills) and have been demonstrated to be effective. The commenter is correct that single California gnatcatchers have occasionally been recorded near the Project Site. Any impacts to the gnatcatcher or its required coastal sage scrub habitat from test drilling at the Central Well Site, or elsewhere on the Project Site, will be mitigated to a level less than significant through implementation of mitigation measure Bio-1a. This measure has been revised to provide 3:1 restoration of permanently impacted coastal sage scrub habitat, and to correct the erroneous reference in the Draft EIR to the wrong set of restoration guidelines from the Habitat Authority. Language for Mitigation Measure BIO-1a is provided below: *To mitigate the Project's permanent loss of 4.16 acres of coastal sage scrub, the Applicant shall provide minimum 3:1 areal replacement. To mitigate the loss of habitat value due to the Project's temporary noise impacts affecting 5.49 acres of coastal sage scrub, the Applicant shall provide minimum 1:1 areal replacement. In total, the Applicant shall restore 17.97 acres of degraded habitats in the La Cañada Verde and Arroyo Pescadero watersheds to coastal sage scrub communities, or as otherwise agreed to by the appropriate resource agencies and the City. All aspects of this restoration shall comply with the Habitat Authority's Restoration Guidelines, as specified in Appendix N of the RMP (LSA 2007, Pages 251-372). The following shall apply:* - *All contractors involved in the restoration effort, including the restoration specialist and landscape contractor, shall be reviewed and approved by the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service).* - *The restoration specialist shall work with the Habitat Authority to select restoration sites in the Habitat Authority's Whittier Management Unit, preferably in the La Cañada Verde and Arroyo Pescadero watersheds.* - *A conservation easement shall be placed over any site restored under this mitigation measure.* - *Mandatory components of any restoration plan shall include, but not be limited to, Site Preparation, Implementation Specifications, Maintenance Methods, Performance Standards, Monitoring Methods, Documentation and Reporting, and Contingency Measures (in case performance standards are not met in any area). All components of any restoration plan prepared in satisfaction of this mitigation measure shall be reviewed*

	and approved by the Habitat Authority prior to implementation. - *Maintenance of all plantings will be the Applicant's responsibility, and shall include any activities required to meet the performance standards set for the restoration program. A minimum of 5 years of maintenance shall be required unless the plan's long-term performance standards are judged by the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service) to be satisfied in less than 5 years.* - *Monitoring all restoration sites will be the Applicant's responsibility for a minimum of 5 years, or until the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service) judge all of the Project's long-term performance standards to be satisfied. The site monitor shall be a biologist, native landscape horticulturist, or other professional qualified to: (1) assess the performance of the planting effort; (2) recommend corrective measures, if needed; and (3) document wildlife use of planting areas over time. The site monitor shall be selected by the Applicant and approved by the City and the Habitat Authority.* - *If performance standards are not achieved in any restoration area, an alternative or auxiliary mitigation plan may be submitted to the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service).* - *The monitoring results shall be reported at least annually to the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service).* - *Additionally, all mitigation must comply with the Restoration Plans for Mitigation and Monitoring Plans found on the Habitat Authority's web page (http://www.habitatauthority.org/devdedmit.shtml).* Implementation of this mitigation measure will reduce the Project's potentially significant impacts to the California gnatcatcher and coastal sage scrub habitat to below a level of significance.
OSLDF1-63	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-64	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response. The commenter's requests for deletions of portions of the Draft EIR are inappropriate and not considered.
OSLDF1-65	Figure 4.2-7 in the Draft EIR provides a map of the Preserve's Core Habitat Management Zone. Page 4.2-37 of the Draft EIR discusses why and how this zone is restricted from public access under the 2007 Resource Management Plan. The EIR biologists are unaware of any other portions of the Preserve that are generally closed to public access.
OSLDF1-66	The commenter requests clarity concerning the boundaries of the Project Site for purposes of the biological resources analysis. Figures 4.2-2 and 4.2-7 show the boundaries of the proposed Project, excluding existing roads and other existing developed areas that would be impacted by installation of

	pipelines or other infrastructure. Figures in each of the biological technical reports provided in Appendix C to the Draft EIR show the wider area that was surveyed by the various specialists in support of the Draft EIR. As directed by the Habitat Authority, the area surveyed included any areas that might be impacted by the proposed Project or the various alternatives. Discussion of "the full 1,290 acre Project Site" would exceed the requirements of the California Environmental Quality Act for a Project that would impact only limited areas, as described in the Draft EIR and in these responses to comments.
OSLDF1-67	As indicated on Page 4.2-9 of the Draft EIR, the statement concerning known records of Plummer's mariposa lily, Catalina mariposa lily, and Robinson's peppergrass "from the nearby vicinity" came from LSA Associates July 19, 2010, technical report on focused plant surveys conducted for the proposed Project. The exact location of these records is not known to the EIR biologists, and is not considered relevant since these species were specifically searched for, but not found, during focused surveys that covered all areas that lie within the boundaries of the proposed Project and all the Project alternatives considered in the Draft EIR. Figures in each of the biological technical reports provided in Appendix C to the Draft EIR show the wider area that was surveyed by the various specialists in support of the Draft EIR; it is unclear why the commenter considers this inadequate, but the requested mapping information was and is readily available to all readers.
OSLDF1-68	Table 4.2-2 in the Draft EIR acknowledges that Glenn Lukos Associates detected a pair of yellow-breasted chats in the upper La Cañada Verde watershed on April 23, 2010, and states, "The site contains suitable nesting habitat for this species and the species is considered to be present on the site." The exact location of the sighting is unknown, as the data sheet provided in the technical report lists a latitude/longitude coordinate that does not appear to correspond to the area described. Page 4.2-37 of the Biological Resources section of the Draft EIR lists the yellow-breasted chat as a species "known or presumed to occur on the site (chats occur mainly in riparian areas but also utilize adjacent brushy habitats). The Project's permanent grading impacts to approximately 7.5 acres of native upland habitats used by these species would be potentially less than significant with mitigation." Mitigation for this species consists of 3:1 restoration of riparian and coastal sage scrub habitats permanently impacted by Project implementation, as well as the other mitigation measures specified in the Draft EIR and in responses to comments. The yellow warbler is a common migrant throughout the region in April and May. The two individual yellow warblers referenced in this comment were seen on April 26 and May 13, 2010, dates consistent with migrants in this region. There was no indication of breeding by these birds, both of which were recorded singing in eucalyptus trees, and breeding would not be expected given the habitats present. The commenter is correct that a single California gnatcatcher was observed by Glenn Lukos Associates on June 24, 2010. The location of this sighting, near the northern edge of the landfill, is erroneously labeled as "May 2010" on Figure 4.2-2 in the Draft EIR. The date in Figure 4.2-2 has been corrected. Although any error in the Draft EIR is regrettable, this one is irrelevant to the Draft EIR impact analysis and to the mitigation measures identified in the Draft EIR. The occurrence of breeding California gnatcatchers in the area proposed for impacts is fully acknowledged in the Draft EIR, and is described in detail in the technical report by Glenn Lukos

	Associates, provided as part of Appendix C to the Draft EIR. The Cooper's hawk is an increasingly common resident and winter visitor in the region. It is not listed as threatened or endangered, and is not a California Species of Special Concern. The species is not any more rare or biologically sensitive than several other "California Special Animals" that occur commonly on the Project Site, such as the Allen's Hummingbird, California Thrasher. The Draft EIR treatment of Cooper's hawk is in accordance with its known status in the region. The EIR biologists do not concur with the commenter that Exhibit 3 in the Glenn Lukos Associates' report is, in fact, "important to an evaluation of roadway alternatives." One of the EIR biologists, Robert Hamilton, has extensive experience with both species, and has also spent time evaluating the Project Site for its potential to support these species. In this instance, the EIR biologists conclude that the most suitable habitat for these species is where the species have been found breeding, and this does not accord with the areas depicted on Exhibit 3. The fact that least Bell's vireos or California gnatcatchers might someday occupy one or more of the areas indicated is not highly relevant to evaluating roadway alternatives in the present. The EIR biologists concluded that the least Bell's vireo's "current potential for breeding appears to be low" because the species has never been recorded breeding on the site, despite focused surveys in 2008, 2009, and 2010, and because only a limited amount of potentially suitable habitat occurs there. The Draft EIR states the U.S. Fish and Wildlife Service (USFWS) designates the Project Site as critical habitat for the federally threatened coastal California gnatcatcher. The statement that the commenter regards as "downplay[ing] the presence of Critical Habitat on the Project Site" is this one, on page 4.2-20: > In part because of its importance to the federally threatened coastal California gnatcatcher and other species of limited distribution, and in part because of its limited global distribution, coastal sage scrub is regarded as a sensitive biological community. The U.S. Fish and Wildlife Service (USFWS) has designated critical habitat for the gnatcatcher across the Project Site and most of the Preserve. It is not clear what part of this statement of fact might be objectively regarded as downplaying the presence of critical habitat for the gnatcatcher on the Project Site. Figures 2 and 3, provided in the comment letter, simply show graphically that the USFWS has designated critical habitat across most of the Project site and at least that part of the Preserve that is shown in the commenter's Figure 2. This is precisely what the Draft EIR states in multiple locations, and adding two more pages to the Draft EIR to show this graphically does not provide any additional benefit. The Draft EIR devotes a fairly lengthy paragraph to providing a useful overview of the federal Endangered Species Act and its potential applicability to the proposed Project. The EIR biologists do not share the commenter's opinion that a California Environmental Quality Act document prepared under state law is required to go into great detail about the content of various federal laws. Although critical habitat is defined in the Endangered Species

	Act as areas that are "essential" for the conservation of a given listed species, impacts to critical habitat are regularly permitted by the U.S. Fish and Wildlife Service, especially for species listed as threatened, rather than endangered. The 3:1 mitigation ratio proposed for impacts to coastal sage scrub is at the high end of what the Service typically requires for the California gnatcatcher, even in designated critical habitat. There is no requirement to prepare a Habitat Conservation Plan if Section 7 consultation occurs, as it typically does, as a requirement of obtaining a Section 404 permit from the U.S. Army Corps of Engineers. It has been noted by other commenters that the Project may not require a federal permitting action that would provide the required nexus for Section 7 consultation, and therefore mitigation measure BIO-1d is modified as follows: *BIO-1d* *The Project proponent shall consult with the U.S. Fish and Wildlife Service to obtain an Incidental Take Statement if needed, pursuant to Section 7 or Section 10 of the federal Endangered Species Act to cover the Project's potential "take" (which includes the permanent and temporary loss of 5.0 acres of critical habitat) of the coastal California gnatcatcher, a federally listed species.*
OSLDF1-69	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit. The discussion within Section 4.11 states partially as follows: The Project Site is designated as open space of "high sensitivity" under the City of Whittier General Plan. Although many of the General Plan's open space policies identify the need to preserve and carefully manage such areas, the Plan also calls for a "balance between oil drilling activities and the protection of plant and animal communities in the hillsides." Oil and gas exploration and production are also allowed with a conditional use permit under Section 18.52.030. Also within Section 4.11 the EIR preparers discuss potential incompatibility issues with the Preserve's Resources Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Approval of the Project would provide for funding to restore the site. Also, as described under the Project Description in the Draft EIR: Solid-waste disposal fees from the Puente Hills Landfill provide the primary funding for the Habitat Authority. This funding will continue through the remaining life of the landfill, currently scheduled to close in November 2013. The Puente Hills Landfill is owned by the County of Los Angeles and is managed by the Sanitation District of the Los Angeles County Solid Waste Management Department. The Oil and Gas Lease between the City of Whittier and the Applicant provides for continuing funding for the Habitat Authority with annual administrative fees and mitigation fees upon issuance and acceptance of a CUP. A successful Project would provide a stable source of funding for the Habitat Authority for as long as the wells produce oil and gas.

	As noted above, without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." The RMP as approved is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. Finally, the City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the Proposed Project within the City-owned land that is part of the Preserve.
OSLDF1-70	Contrary to the commenter's assertion, the Project Site is not covered under any "adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan."
OSLDF1-71	The EIR biologists concur with the commenter that designation of the Project vicinity as a Core Habitat Management Zone is relevant, and that it justifies efforts to minimize impacts and to provide greater mitigation ratios than might be required in a different setting. Nevertheless, we do not believe there is strong support in the literature for the idea that Project implementation, including all required mitigation measures, considered independently from impacts from other sources (i.e., cumulative effects), is likely to result in significant adverse effects on biological resources, including those in the core habitat area. For many decades this area was subject to much more intensive drilling than is now being proposed, and without biological mitigations, and yet the wildlife populations persisted there. This is one reason that the EIR biologists conclude that 30 more years of limited drilling, with mitigation, would not have the dramatic level of impact upon biological resources suggested by the commenter. In response to the concerns expressed in this comment and others concerning various anticipated "edge effects," the EIR biologists have conducted additional analysis, including review of additional scientific studies. The commenter raises questions about the potential for increased noise to cause wildlife to avoid the area around the proposed Project area. In response to this and other similar comments, the EIR biologists have re-evaluated the issue, including review of the following articles from the scientific literature: • Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. Trends in Ecology and Evolution 25:180-189. • Fuzessery, Z. M., P. Buttenhoff, B. Andrews, and J. M. Kennedy. 1993. Passive sound localization of prey by the pallid bat (*Antrozous p. pallidus*). Journal of Comparative Physiology A 171:767-777. • Dooling, R. J., and A. N. Popper. 2007. The Effects of Highway Noise on Birds. Report prepared by Environmental BioAcoustics

	LLC for The California Department of Transportation, Division of Environmental Analysis, Sacramento, CA. http://www.caltrans.ca.gov/hq/env/bio/files/caltrans_birds_10-7-2007b.pdf • Bayne, E. M., L. Habib, and S. Boutin. 2008. Impacts of chronic anthropogenic noise from energy-sector activity on abundance of songbirds in the boreal forest. Conservation Biology 22:1186-1193. • Schaub, A., J. Ostwald, and B. M. Siemers. 2008. Foraging bats avoid noise. Journal of Experimental Biology 211:3174-3180. • Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. Current Biology 19:1415-1419. • As summarized by Barber and colleagues, "Chronic noise exposure is widespread. Taken individually, many of the papers cited here offer suggestive but inconclusive evidence that masking is substantially altering many ecosystems. Taken collectively, the preponderance of evidence argues for immediate action to manage noise in protected natural areas." The evaluation of potential noise impacts upon wildlife is confounded by varying and oppositional responses of different species to chronic noise. For example, the study by Francis and colleagues, listed above, found that "noise can have an indirect positive effect for individuals nesting in noisy areas" resulting from a decrease in nest predation due to avoidance of noisy areas by the Western Scrub-Jay, a major nest-predator. Nevertheless, their study also found that most bird species responded negatively to noise (e.g., three species nested only in loud sites and 14 species nested only in quiet, control sites). Their study provided "the strongest evidence to date that noise negatively influences bird populations and communities, and acoustic masking may be a dominant mechanism precluding many birds from breeding in noisy habitats." Another important study, by Bayne and colleagues, found that areas near noiseless energy facilities had a total passerine density 1.5 times higher than areas near noise-producing energy sites. Among bats, Fuzessery et al. found that the pallid bat relies upon prey-generated movement sounds to localize its terrestrial prey. The later study by Schaub and colleagues, which focused on another gleaning bat, the greater mouse-eared bat, concluded, "Our experimental data suggest that foraging areas very close to highways and presumably also to other sources of intense, broadband noise are degraded in their suitability as foraging areas for such 'passive listening' bats." In Irvine, Orange County, LSA Associates conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: > Although it is difficult to directly relate the effects of noise on breeding birds, no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity) as evidenced by the number of California Gnatcatchers and least Bell's vireos

	> remaining in this area. In fact, in 2000, a least Bell's vireo pair successfully nested in the portion of Bonita Reservoir that was nearest to the construction activity (p. 17). The following summary is contained in the Birds of North America species account for the California Gnatcatcher (Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher [*Polioptila californica*]. The Birds of North America Online [A. Poole, ed.]. Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/574): > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). Of 91 nests found at heavily used state park, 13% were <3 m from paved roads or trails; no evidence that such nests failed more frequently than those in less disturbed sites (Miner, K. L., A. L. Wolf, and R. L. Hirsch. 1998. Use of restored coastal sage scrub habitat by California Gnatcatchers in a park setting. West. Birds 29:439-446.). Noise levels below the level of 60 dBA are not expected to be adverse to biological resources. The limited area where levels are expected to increase to 60-70 dBA may be avoided by the most sound-sensitive species, such as the pallid bat. Noise from trucks and periodic clanging of equipment would be in addition to the ongoing, low-level noise. Comment HA-15 in the Habitat Authority's comment letter on the Draft EIR notes that, in a recent tracking study, bobcats were not found in apparently suitable riparian habitat near the existing the Applicant Oil drilling pad in lower Sycamore Canyon, approximately 3.5 miles northwest of the Project Site. Unlike the drilling operation currently proposed, that existing drilling operation does not include any sound mitigations, and it is much noisier than what is being proposed in the La Cañada Verde watershed. As stated in the analysis of cumulative impacts on Page 4.2-50, "The cumulative projects (see Section 3.0, Cumulative Projects Description) will result in increased infill of open areas, increased human presence, and temporary and permanent loss of habitat in the general area that is already under extreme pressure from surrounding residential and urban areas." After consideration of all relevant information, including the additional data and interpretations provided in this and other comment letters on the Draft EIR, the EIR biologists conclude that increased noise associated with the proposed Project and all alternatives would represent a cumulatively considerable increase in the level of noise in the Preserve. Impacts and mitigation measures have been added to Section 4.2, Biological Resources, to address the cumulative impacts by applying mitigation to the Sycamore Canyon facilities operated by the Applicant to reduce biological impacts in that area and to prevent simultaneous test-drilling, construction, or redrilling of wells construction work on the Tehachapi Renewable Transmission Project. This action, taken as part of the Project currently being proposed, would

	substantially reduce ongoing noise impacts to wildlife populations in the local area due to oil drilling, effectively mitigating the Project's cumulatively considerable contribution to noise impacts in the Whittier Hills. In addition, the following text has been added to mitigation measure BIO-4a: Devices and measures shall be employed to minimize noise effects upon wildlife. At a minimum, noise barriers shall surround the drill rig floor, mud mixers, cleaners, conveyers, shakers, pumps, and other oil development and operational facilities; construction activities shall be limited to daylight hours except for emergencies; construction machinery shall be operated per manufacture's specifications; and a Noise Reduction Plan and monitoring plan shall be implemented to ensure the Project activities are operating within the ranges included in mitigation measure N-4. In addition, the following text has been added to the Residual Impacts section for Impact BIO-4: Implementing mitigation measures recommended in Section 4.5, Noise and Vibration, would reduce impacts to wildlife inhabiting the Project area and species migrating through the area. Mitigation measure N-1a limits the construction activities to daylight hours; mitigation measure N-1b requires that all construction machinery operate according to the manufacture's specifications. Mitigation measure N-2a requires a Noise Reduction Plan for all drilling operations that requires appropriate noise levels, 30-foot high enclosures around drill rigs, soundproofing around other facilities and machinery, barrier composition and design, and backup indicators. Mitigation measure N-2b requires a quiet mode for facility operations at night. Mitigation measure N-2c requires a noise abatement study to monitor noise levels at specific sensitive resources and includes shut-down authority if noise criteria are exceeded. Mitigation measure N-4 requires a Noise Reduction Plan for all operational activities to ensure that all Project activities operate within the dB range defined in mitigation measure N-4. It is the conclusion of the EIR biologists that the Project's noise impacts upon wildlife populations will be adverse, but less than significant after mitigation.
OSLDF1-72	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response. The Resource Management Plan (RMP) defined and designated "High Quality Habitat" areas across portions of the Preserve, areas that happen not to overlay the Project Site or nearby vicinity. Given that this is an objective measure of relative biological value contained in the RMP, the EIR biologists were obligated to report this fact, just as we did the fact of the RMP designating much of the Project Site a Core Habitat Management Zone. The Draft EIR, in numerous places, identifies the elevated biological values of the Project Site and surrounding areas, and the Draft EIR and these responses to comments have identified both avoidance measures as well as high levels of mitigation to help protect and restore the areas that would remain if the Project or one of the alternatives is built.
OSLDF1-73	The additional information provided in this comment is appreciated, and is incorporated into the California Environmental Quality Act (CEQA) documentation for the Project. The Project's effects upon the California gnatcatcher are identified in accordance with CEQA standards. As noted in

	the Draft EIR, the Project will need to comply with the federal Endangered Species Act, and the U.S. Fish and Wildlife Service will ensure that all federal issues, such as the critical habitat designation, are adequately addressed through a combination of avoidance and other forms of mitigation. The fact is that the California gnatcatcher is quite tolerant of "edge" conditions. As reported in response to comment OSLDF1-71, above: In Irvine, Orange County, LSA Associates conducted noise level surveys in the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: > Although it is difficult to directly relate the effects of noise on breeding birds, no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity) as evidenced by the number of California Gnatcatchers and least Bell's vireos remaining in this area. In fact, in 2000, a least Bell's vireo pair successfully nested in the portion of Bonita Reservoir that was nearest to the construction activity (p. 17). The following summary is contained in the Birds of North America species account for the California Gnatcatcher (Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher [*Polioptila californica*]. The Birds of North America Online [A. Poole, ed.]. Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/574): > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). Of 91 nests found at heavily used state park, 13% were <3 m from paved roads or trails; no evidence that such nests failed more frequently than those in less disturbed sites (Miner, K. L., A. L. Wolf, and R. L. Hirsch. 1998. Use of restored coastal sage scrub habitat by California Gnatcatchers in a park setting. West. Birds 29:439-446.). One of the EIR biologists, Robert Hamilton, possesses Federal Permit No. TE-799557 to survey for California gnatcatchers, and has been conducting focused surveys for this species since before the time of its listing in 1993. It is Mr. Hamilton's opinion, based upon both the literature cited above and his own extensive experience, that California gnatcatchers are not greatly affected by such "edge effects" as noise and human activity, and that the proposed Project or its alternatives would be very unlikely to have a substantial adverse effect on "connectivity with other units" of gnatcatcher critical habitat or the "role in genetic interchange among core populations."

	The 3:1 mitigation of permanent impacts to coastal sage scrub and riparian habitats would improve the capacity of the Preserve to support this species.
OSLDF1-74	The Project's potentially significant adverse effects on the California gnatcatcher are well-documented in the Draft EIR, and the level of mitigation proposed is at the high end for what the U.S. Fish and Wildlife Service (Service) typically requires, even in critical habitat. The Project proponent would not be required to prepare a Habitat Conservation Plan (HCP) for these proposed impacts unless the Project is found to not entail any other federal permitting actions, such as a Section 404 permit from the U.S. Army Corps of Engineers. In that case, as discussed in response to comment OSLDF1-68, the Project proponent would be required to consult with the Service to determine if an Incidental Take Statement is needed pursuant to Section 10 of the federal Endangered Species Act (ESA), which would entail the preparation of an HCP. In either case, the Service would be responsible for ensuring compliance with the federal ESA, and the public has been given ample opportunity to evaluate the proposed impacts to this species, as well as the approach to mitigation specified in the Draft EIR and responses to comments.
OSLDF1-75	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-76	The Draft EIR does fully identify impacts to the American peregrine falcon, western spadefoot, coastal western whiptail, San Bernardino ringneck snake, Cooper's hawk, Costa's hummingbird, Allen's hummingbird, Nuttall's woodpecker, California thrasher, yellow-breasted chat, southern California rufous-crowned sparrow, Yuma myotis, western red bat, western yellow bat, hoary bat, pallid bat, mountain lion, and San Diego desert woodrat. Those not specifically called out in the Draft EIR impact analysis "were determined to have only limited potential for occurrence on the Project Site or are 'California Special Animals' that are widespread in the Puente-Chino Hills and elsewhere in the region. Impacts to these species are considered to be potentially adverse, but less than significant." It should be noted that, during the course of supplemental surveys for terrestrial gastropods conducted by Dr. Emile Fiesler and Robert Hamilton on February 8, 2011, the following additional taxa were found that had not been recorded during previous biological investigations of the site: • Black-bellied slender salamander (*Batrachoseps nigriventris*). Eight individuals encountered under downed wood and in leaf-litter, scattered throughout site. • San Bernardino ringneck snake (*Diadophis punctatus modestus*). Observed in leaf-litter beneath a eucalyptus tree near the end of Catalina Avenue, in the southern part of the Project Site. Table 4.2-2 in the Draft EIR gave this species "High potential for occurrence along streambeds and in other moist habitats on the Project Site," and this table will be updated to note the species' documented occurrence on the site. • Southern pacific rattlesnake (*Crotalus oreganus helleri*). One encountered in disturbed coastal sage scrub in the southern part of the site.
OSLDF1-77	Please refer to response to comment OSLDF1-71, which includes a revised noise analysis and finding that increased noise associated with the implementation of the proposed Project, or any alternative, would represent a cumulatively considerable increase in the level of noise in the Preserve. The

	mitigation identified to reduce this cumulative impact to a level less than significant is: *CUMULATIVE BIO-1 The applicant shall ensure, and shall demonstrate to the City of Whittier and Habitat Authority, that the existing the Matrix Oil drilling operation in lower Sycamore Canyon, in the Whittier Hills, complies with Chapter 12.08.390 of the County of Los Angeles Code (Exterior Noise Standards). Compliance includes achieving an exterior noise standard of 45 dBA (L_{50}) applicable at the property boundary (i.e., the Preserve's property boundary) of all noise-sensitive areas and residential areas, any time of the day.* This action, taken as part of the Project currently being proposed, would substantially reduce ongoing noise impacts to wildlife populations in the local area due to oil drilling, effectively mitigating the Project's cumulatively considerable contribution to noise impacts in the Whittier Hills.
OSLDF1-78	To evaluate the potential adverse effects of Project vibrations more thoroughly, the EIR biologists requested more detailed information on the vibrations expected from Project operations. Vibrations associated with drilling would vary over time. The highest vibration levels experienced by wildlife would most likely occur during the initial portion of drilling a well, during approximately the first 100 feet of drilling, and this would last a matter of hours when they are drilling close to the surface. The actual peak vibration levels during this period would be only for a sum total of a matter of minutes. One well would be drilled per month. Therefore, while it is possible that some wildlife in the vicinity of the drilling operation, such as bobcats, would experience anxiety due to vibrations produced during high-vibration periods, those periods would be rare and relatively short-lived, lasting for only a period of hours per month. The typical response of most wildlife to a short-term, infrequent event, is short term avoidance, but if the abnormal condition (such as noise and vibration) ceases, wildlife species typically return to their normal behavior. The EIR biologists conclude that this level of impact to wildlife from vibrations would be adverse, but less than significant.
OSLDF1-79	As discussed in response to comment OSLDF1-62, mitigation measure Bio-1a has been revised to provide 3:1 restoration of permanently impacted coastal sage scrub habitat, and to correct the erroneous reference in the Draft EIR to the wrong set of restoration guidelines from the Habitat Authority. Although they may exist, the Project biologists are unaware of cases in which a California Environmental Quality Act lead agency or the U.S. Fish and Wildlife Service have required greater than 3:1 areal replacement for coastal sage scrub occupied by the California gnatcatcher. In our experience, a replacement ratio of 1:1 or 2:1 is more typical.
OSLDF1-80	The process of "double-dipping" on mitigation, described in this comment, occurs when one Project impacts habitat and restores that habitat elsewhere, and then another Project removes the replacement habitat and does not replace it at a higher ratio. In this case, removal of the restored habitat would entail 3:1 restoration of degraded habitats elsewhere in the Preserve. Thus, the practical effect of removing one acre of restored habitat is that three other acres of degraded habitat would be restored. The EIR preparers do not know the costs of the Arroyo Pescadero and former Chevron restoration projects and do not consider this information relevant to CEQA analysis of the current Project.

OSLDF1-81	No formal wetlands delineation study has yet been prepared for the proposed Project. Once a project configuration has been determined through the California Environmental Quality Act review process, a jurisdictional delineation can be carried out in order to obtain the required permits and agreements, as specified in mitigation measure BIO-2b. The impact analysis conducted for the Draft EIR identified potentially significant impacts for all impacts to riparian habitat, and specified that 3:1 mitigation would be required for permanent impacts and 1:1 revegetation would be required for temporary impacts. In response to comments received on the Draft EIR, mitigation measure BIO-2a has been corrected and strengthened: *To mitigate the Project's permanent loss of 0.22 acre of riparian habitat, the Applicant shall provide minimum 3:1 areal replacement. To mitigate the Project's temporary noise impacts affecting 0.75 acres of riparian habitat, the Applicant shall provide minimum 1:1 areal replacement. In total, the Applicant shall restore 1.41 acres of degraded areas within the La Cañada Verde and Arroyo Pescadero watersheds, or as otherwise agreed to by the appropriate resource agencies and the City. The 0.12 acre of temporary grading impact would be mitigated through the 1:1 revegetation specified in BIO-1.b. All aspects of this restoration shall comply with the Habitat Authority's Restoration Guidelines, as specified in Appendix N of the RMP (LSA 2007, Pages 251-372). The following points shall apply:* - *All contractors involved in the restoration effort, including the restoration specialist and landscape contractor, shall be reviewed and approved by the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service).* - *Mandatory components of any restoration plan shall include, but not be limited to, Site Preparation, Implementation Specifications, Maintenance Methods, Performance Standards, Monitoring Methods, Documentation and Reporting, and Contingency Measures (in case performance standards are not met in any area). All components of any restoration plan prepared in satisfaction of this mitigation measure shall be reviewed and approved by the Habitat Authority prior to implementation.* - *Maintenance of all plantings will be the Applicant's responsibility, and shall include any activities required to meet the performance standards set for the restoration program. A minimum of 5 years of maintenance shall be required unless the plan's long-term performance standards are judged by the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service) to be satisfied in less than 5 years.* - *Monitoring all restoration sites will be the Applicant's responsibility for a minimum of 5 years, or until the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service) judge all of the Project's long-term performance standards to be satisfied.*

	The site monitor shall be a biologist, native landscape horticulturist, or other professional qualified to: (1) assess the performance of the planting effort; (2) recommend corrective measures, if needed; and (3) document wildlife use of planting areas over time. - *The site monitor shall be selected by the Applicant and approved by the City and the Habitat Authority.* - *If performance standards are not achieved in any restoration area, an alternative or auxiliary mitigation plan may be submitted to the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service).* - *The monitoring results shall be reported at least annually to the City, the Habitat Authority, and appropriate resource agencies (e.g., U.S. Fish and Wildlife Service).* - *Additionally, all mitigation must comply with the Restoration Plans for Mitigation and Monitoring Plans found on the Habitat Authority's web page (http://www.habitatauthority.org/devdedmit.shtml).* The same changes have been made to the Mitigation Monitoring Plan (Section 4.2.7 and Section 8.0 of the Final EIR). Mitigation measure BIO-2b specifies that the Project proponent shall be required to obtain all applicable federal and state permits and agreements, including (1) a Section 404 Permit from the U.S. Army Corps of Engineers, (2) certification, or a waiver of certification, from the Los Angeles Regional Water Quality Control Board that the activity would not adversely affect water quality, and (3) a Streambed Alteration Agreement from the California Department of Fish and Game. Together, BIO-2a and BIO-2b provide the public with adequate assurance that, through a combination of avoidance of impacts, and adequate mitigation for impacts that can not be avoided, the Project's potentially significant adverse effects will remain at a level less than significant.
OSLDF1-82	Mitigation Measure T-1e, requiring widening of Catalina Avenue, has been revised in the Final EIR to prohibit parking along the east side of Catalina Avenue north of Mar Vista Street to provide additional capacity (only during the test drilling phase) for the passage of trucks. There would not be impacts to the riparian corridor under this revised mitigation measure.
OSLDF1-83	Please refer to response to comment OSLDF1-81.
OSLDF1-84	An emergency response plan would be required as part of the permitting process. Mitigation measure FP-1d, in Section 4.12, Fire Protection and Emergency Response, requires the development and submittal of an emergency response plan. It is not required for the assessment of California Environmental Quality Act impacts. Mitigation measure WR-3b and WR-4c requires the installation of leak detection systems and berms, Mitigation measure SR-2a requires the installation of automatic shut-off valves, and mitigation measure SR-1b requires that audits be conducted against codes and standards. Reviews of the emergency response plan and response drills are requirements associated with federal requirements (such as 40 CFR Spill Prevention Control and Countermeasure Plans) and state requirements (Business Plan Program) that would be implemented if the Project is

	approved.
OSLDF1-85	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-86	Project implementation would not result in the removal of any trees protected under local policies protecting biological resources, such as a tree preservation policy or ordinance. The Project's potential impacts to roosting bats and nesting birds have been described and analyzed, and mitigation provided in mitigation measure BIO-4e, mitigation measure BIO-4f, and mitigation measure BIO-4g.
OSLDF1-87	The commenter's contrary opinion is noted, but the EIR biologists believe that the Draft EIR adequately discusses the Project's consistency with each of the federal, state, and local policies that apply to biological resources on the Project Site.
OSLDF1-88	The commenter's contrary opinion is noted, but the EIR biologists do not concur that all of the potential projects indicated at the commenter's web page require evaluation as part of this EIR cumulative impact analysis. However, the cumulative impact analysis now includes the ongoing Applicant oil operation in Sycamore Canyon, 3.5 miles northwest of the Project Site, and a reevaluation of the potential cumulative effects of Project construction together with the ongoing Tehachapi Renewable Transmission Project in the La Cañada Verde watershed. Please refer to the revision to the Final EIR cumulative impact analysis and new mitigation requirements in response to comment OSLDF1-71.
OSLDF1-89	The commenter's opinions are noted. The concept of drilling for oil in a habitat reserve is not difficult to lampoon, and it would not occur without entailing adverse effects upon natural communities and wildlife. It is the significance of those adverse effects after mitigation that is at question. The EIR biologists recognize that the analyses and conclusions presented in the Draft EIR and responses to comments will not be universally shared. We consider it relevant, however, that for many decades a much larger area including and surrounding the proposed Project Site was subject to much more intensive drilling than is now being proposed, without biological mitigations, and yet the wildlife populations persisted there. This is one reason that the EIR biologists conclude that 30 more years of limited drilling, with mitigation, would not have the dramatic levels of impact upon biological resources suggested by the commenter.
OSLDF1-90	Both Mr. Chittick and Mr. Radis have extensive experience in hazardous materials, risk assessment, process hazards analysis, dispersion and release modeling as well as numerous other fields. Mechanical engineering is the basis of most modeling, as the field of heat and mass transfer phenomena is a field of mechanical engineering, in which Mr. Chittick obtained his advanced degree from the University of California Berkeley. Combined, Mr. Chittick and Mr. Radis have more than 50 years experience performing advanced analysis on hazardous materials on well over 250 projects, including some of the most controversial and technically challenging oil and gas projects in California and Alaska.
OSLDF1-91	The sampling program conducted on the proposed Project site in 2010 by PW Environmental is presented in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. Additional sampling is recommended in Mitigation Measure SR-3 in Section 4.3, Safety, Risk of Upset, and Hazardous Materials.
OSLDF1-92	The sampling was conducted at different depths, as described in the reports available from the City. Coordination with the Habitat Authority and City was part of the studies.

OSLDF1-93	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, presents modeling conducted on release scenarios defined in the same section. These release scenarios impact an area out as far as 800 feet associated with vapor clouds produced by flammable gas releases. The estimate of 0.25 to 0.5 miles is a conservative estimate based on this and other studies of similar facilities in order to encompass potential sensitive receptors.
OSLDF1-94	Risks associated with acute impacts from accidental releases are based primarily on human exposure. The assumption is made that impacts to wildlife might also produce impacts, but that these would also be mitigated with similar measures as described in Section 4.3, Safety, Risk of Upset, and Hazardous Materials. In general, impacts to sensitive species are primarily associated with habitat loss and disturbance and less so with accidental releases.
OSLDF1-95	Risks are based on serious injury, which is defined in Section 4.3, Safety, Risk of Upset, and Hazardous Materials, as being impacts that require hospitalization. Generally, injuries that require hospitalization are injuries that last longer than the duration of the event. Less serious injuries, such as minor inhalation irritation, etc, are addressed in Section 4.1, Air Quality, which presents results of the health risk assessment. The health risk assessment examines cancer, chronic and acute impacts. Less serious injuries, such as minor inhalation irritation, would be considered acute impacts and would rely on the recommended exposure levels for various chemicals as defined by the Environmental Protection Agency.
OSLDF1-96	The details of the Quantitative Risk Assessment (QRA) model input are included in Appendix D, Risk Assessment Calculations. These include base frequencies and their references, estimated valve and component counts, equipment inventories, piping lengths, human error factors, earthquake frequencies as well as various assumptions about probabilities and percentages. The QRA model is codified QRA methodologies from Center for Chemical Process Safety reports cited in the references appendix.
OSLDF1-97	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, and Appendix D described the detailed frequency analysis conducted for the proposed facilities. Earthquake rates producing greater than 0.5g and 1.0g acceleration are utilized, based on U.S. Geological Survey probabilities, as contributing factors in the frequency analysis.
OSLDF1-98	Future events occur at an estimated frequency based on historical data. During any given year, there is a frequency of a valve failing or a well blowing out or a release occurring at the facility. Given a release, there is then a probability that subsequent events could occur, such as ignition of the flammable vapor cloud or wind directions toward residences. This series of scenarios and subsequent probabilities is codified in a Quantitative Risk Assessment model. Risk analysis is not as simple as occurring or not occurring.
OSLDF1-99	Figure 4.3-4 in Section 4.3, Safety, Risk of Upset, and Hazardous Materials, shows the distance that scenario could impact. Numbers of injuries or fatalities is detailed in the FN curves shown in Figure 4.3-5 along the x-axis.
OSLDF1-100	Given a serious release at the Project Site during drilling, the Ranger Residence would potentially be in the fatality zone and the school and some residences would potentially be in the injury zone. If the Ranger Residence is moved, then the fatalities would be mitigated to less than significant. However, injury impacts would remain significant and unavoidable at the school and residences.
OSLDF1-101	The risk analysis only assesses the risks produced by the new pipeline up to where the natural gas enters the gas transmission system. After that point, the

	gas comingles with the other gas already in the main transmission pipeline and is under the same pressure and temperature as the main transmission pipeline. As the distance that a release will go, and therefore impacts, of a gas pipeline are a function of pressure, temperature and pipe size, the risks associated with the main transmission pipeline would be the same before and after the Project gas is added. Therefore, no additional analysis is required.
OSLDF1-102	Section 4.3, Safety, Risk of Upset, and Hazardous Materials, describes in detail what a pressurized reservoir is and what the implications are. It is not known at this time and will not be known until the wells are drilling, if and for how long the wells will be pressurized. Since this is a substantial factor on the risk levels, the worst case of pressurized wells is analyzed.
OSLDF1-102	The Applicant indicates in their comments on the Draft EIR that the Colima Road pipeline would only operate at 500 pounds per square inch gauge, instead of at 1,000 pounds per square inch gauge. Due to this lower pressure, a 6-inch pipeline would be adequate and would not produce risk levels that exceed the thresholds. However, a backflow valve and shutdown valves along with warning tape would still be required mitigation. The acceptable risk levels are those shown in the FN curves, which correlate to 1 in 100,000 for a single fatality or 1 in 1,000 for a single injury. The acceptability decreases (1 in 10 million for 10 fatalities, for example) with increasing fatalities or injures. This is detailed in Figure 4.3-5 along the y-axis. Generally, screening analysis requires risks of fatalities to be less than 1 in 1,000,000 If the risks are higher than this in screening, then a detailed Quantitative Risk Analysis is conducted (as in this analysis). These are standard values used in a risk analysis in many countries and in industry.
OSLFD-103	Drilling at the Project Site was selected as the location for assessing the risk as it is located the closest to the school and to residences, thereby producing the most risk. The executive summary clearly states that risks are significant and unavoidable.
OSLFD-104	The executive summary clearly states that risks associated with drilling are significant and unavoidable.
OSLFD-105	Information on the 2005 fire and explosion at the Honolulu Terrace facility has been added to Section 4.3, Safety, Risk of Upset, and Hazardous Materials, in the Final EIR. This scenario was addressed in the release scenarios discussed and analyzed in Section 4.3, Safety, Risk and Hazardous Materials. However, there would be no cumulative impact with the proposed Project as the areas that could be impacted by the two facilities do not overlap. The same persons exposed at Honolulu Terrace are not impacted by the proposed Project and vice versa. The Honolulu Terrace operating history was assessed when developing the scenarios used in the Draft EIR.
OSLFD-106	Section 4.3, Safety and Risk, details various scenarios that could occur at the facilities and their resultant impacts on nearby receptors. A well drilling explosion at the Project Site under the proposed Project could impact the school and cause injuries. This was identified as a significant and unavoidable impact that could not be mitigated. The alternative associated with moving the drilling operations farther away from the school and residences would eliminate this impact. Information on the 2005 Honolulu Terrace fire has been added to Section 4.3, Safety, Risk of Upset, and Hazardous Materials. The same scenario was analyzed in the Draft EIR and was determined to produce significant and unavoidable impacts.
OSLFD-107	Robert W. Anderson and Rory "Tony" Robinson are the two principals responsible for the geology and geotechnical analysis in the Final EIR. Mr.

	Anderson is a registered Civil Engineer in California, Washington, Oregon, Hawaii, Arizona, and Colorado. Mr. Anderson has more than 25 years experience in civil and geotechnical engineering, including more than 3,000 projects in Southern California. Mr. Anderson is an engineering reviewer for several cities, counties, and other agencies, and he has prepared or provided technical review for more than 100 environmental impact reports. Mr. Robinson is a registered civil engineer, geotechnical engineer, certified engineering geologist, and a certified geohydrologist in California. Mr. Robinson has more than 15 years of experience and has worked on more than 1,500 projects in Southern California. Mr. Robinson also has a Ph.D. in Geology from the University of Southern California.
OSLFD-108	Section 4.4.1.5, Geotechnical Hazards, discusses subsidence. In addition, impact GR.7 identifies subsidence due to oil withdrawal as an impact from the Project. However, implementing mitigation measures GR-11a and GR-11b, which include global positioning system surveying, monitoring, and regular reporting, will reduce this impact to less than significant.
OSLFD-109	The State has delineated portions of the proposed Project Site as possibly prone to liquefaction. Section 4.4, Geologic Hazards, has been revised to state that portions of the site are in a delineated liquefaction zone. The Final EIR concludes that the potential for liquefaction and other secondary effects of ground shaking exists (impact GR.1). However, if areas below or proximate to any proposed improvements are found to be prone to liquefaction, several mitigation measures within the custom and practice of the industry are within the scope of conventional construction and would be available to mitigate the hazard. The conclusions regarding liquefaction are not deferred mitigation. The Final EIR includes substantial evidence and relevant data for the site conditions (14 CCR § 15384). A fair analysis based on this information evaluated site conditions and possible hazards and impacts. This analysis concluded that there may be a potential for liquefaction. Further review and analysis determined that in the event of such a hazard, several available remedial measures could mitigate the hazard. Whether the liquefaction assessment is performed now or after detailed plans are prepared, the finding will remain that the hazard is significant and can be mitigated. In summary, the mitigation measures are thoroughly defined, however, the extent of the necessary mitigation will depend on the liquefaction assessment. Therefore, a finding that requires site-specific studies after the Project plans are fully developed is reasonable. These future studies will tailor the available mitigation measures to the actual environmental conditions.
OSLFD-110	The Final EIR fully analyzes the geologic, geotechnical, seismic, and hydrologic conditions of the Project Site; the Final EIR then determines the potential impacts of the Project and develops mitigation measures where necessary. Qualified, state-licensed technical experts with extensive experience in Southern California conducted these analyses.
OSLFD-111	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-112	The California Environmental Quality Act analysis associated with the change in municipal code is out of the scope of this EIR. The strict, quantified noise standards in the previous municipal code inhibited the Police Department's response to complaints when noise levels were actually below the quantified standards but were disturbing neighbors. The previous code

	required the Police Department use noise monitoring equipment respond to noise complaints. Citizen testimony about unregulated noise disturbances led the City to change the noise elements in the Municipal Code. This change in the Municipal Code was unrelated to the Applicant's proposed Project. The Draft EIR attempts to address disturbance by applying a criteria based on changes in noise levels (allowable increases of up to 3 dBA at residences) as opposed to just the General Plan guidelines. This is discussed in Section 4.5.2.5, Significance Criteria. However, the previous City of Whittier Municipal Code noise standards were modeled on the Los Angeles County Code, which would not apply to drilling or re drilling work that is done in full compliance with the conditions of permits is exempt from the Los Angeles County Code (12.08.570m2).
OSLFD-113	Acoustic engineering is a sub-field of mechanical engineering. University courses in acoustical engineering are within the mechanical engineering departments and taught by mechanical engineers. Mr. Chittick has extensive experience in acoustic engineering, including graduate level studies, has conducted more than 25 acoustical analysis of projects, and has been trained in acoustic analysis and modeling.
OSLFD-114	Noise monitoring was conducted on Monday, December 7, 2009. Noise levels were monitored for three periods at six sites; one during the daytime, one during the evening, and one at night. Noise monitoring periods varied between 20 minutes and 1 hour.
OSLFD-115	Interior noise standards of 45 dBA are a standard occurrence in area municipal codes and standards. Generally, interior noise levels are attenuated by walls by about 15 dBA, depending on the type of construction. The current general plan guidelines on noise levels along with allowable increases in background noise levels were used for significance criteria. Generally, all codes and standards allow for construction related noise levels if the noises are limited in their time during the day, hence the different criteria for construction.
OSLFD-116	The 70 dBA level was used for Parks as applied to the Preserve as this is the most applicable level in the jurisdiction within which the Project is located. However, the use of the 3-5 dBA above baseline is substantially more strict than the general plan level for parks (70 dBA), and this was the driving issue related to the Preserve impacts as the 70 dBA level was essentially not used in the analysis. Note that most of the time, the baseline is above 45 dBA in the Preserve and therefore the incremental increase threshold used is more applicable.
OSLFD-117	Construction activities are limited by noise codes, and by the Mitigation Measure N-1a, which limits the times of construction to between 7 am and 6 pm weekdays, 8 am and 5 pm Saturdays.
OSLFD-118	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-119	The impact of operations before mitigation would produce significant impacts. However, they would not be unavoidable as they could be mitigated. The text on page 4.5-38 has been modified for the Final EIR to reflect the fact that mitigation could reduce the impacts to less than significant.
OSLFD-120	The contribution of the Project noise to the noise levels at some of the receptor locations would be less than the current baseline. This is due to the level of mitigation, which reduces the noise levels of operations substantially, particularly for those receptors located some distance away from the Project

	components.
OSLFD-121	Over the Project life, the majority of the time would be the operational activities at the Project Site without drilling. In addition, initially, during testing, drilling would occur without the Project Site equipment operating. Both of these scenarios have been presented in the Draft EIR and Final EIR. However, during periods of time when they are operating together, the resulting impacts of these two operating simultaneously has an additive effect, on an energy basis, and results in significant impacts.
OSLFD-122	Project traffic along area roadways would be minimally impacted by the levels of traffic generated by the proposed Project, except along Catalina Avenue, due to its light levels of traffic, which was included in the noise modeling. Mar Vista Street and Colima Road noise levels due to traffic would change by less than 0.1 dBA utilizing the Federal Highway Administration noise models and the baseline traffic levels shown in Section 4.7, Transportation and Circulation. This has been added to Section 4.5, Noise and Vibration.
OSLFD-123	Drilling is not considered to be a construction activity by most codes and standards. Therefore, drilling has not been included in the limits on construction traffic. However, other mitigation measures do limit the amount of traffic that is allowed to use Catalina Avenue and Mar Vista Street during drilling, such as mitigation measure T-1c and d.
OSLFD-124	All of the mitigation measures would be implemented by the Applicant and overseen by the City and other agencies, assuming that they are accepted and included in the permits issued by the City to the Applicant. Payment of the costs associated with the mitigation measures is outside the scope of the EIR, but the Applicant typically incurs the costs as part of the permit agreements.
OSLFD-125	Noise levels that adhere to general plan and municipal code guidelines are assumed to not produce health effects. In addition, strict levels on the allowable increases in noise levels have also been included in the Draft EIR to ensure that noise levels do not produce impacts. Noise impacts to biological resources are discussed in Section 4.2, Biological Resources.
OSLFD-126	Aerial views are not applicable to an aesthetic resources analysis as most people are not flying over the area. Aesthetics involves a detailed analysis of how the Project would look from existing views, or how it would affect the viewshed. This includes views from locations such as nearby residences, the school, and the recreational trails. Views from Google Earth provide no value to the EIR in terms of assessing the aesthetic impact. They are helpful for understanding the Project and the Project Description, and they are used in these sections.
OSLFD-127	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-128	At any one time, the eye views only one image. Although the eye can view multiple images sequentially, of course, this is difficult to capture in a two-dimensional paper report. Photo simulations utilizing video would more accurately capture the essence of the changes to the viewshed, but would be substantially more difficult to present in the report and would provide little value in assessing the significance of the impacts.
OSLFD-129	Generally, the more photo simulations that can be provided, the more complete is the understanding of the effects of the Project from a large number of locations and views. However, the intent of the photo simulations, and the Draft EIR in general, is to identify significant impacts. The photo simulations presented in the Draft EIR provide a range of views and a good understanding of the extent of the impacts of the proposed Project on the aesthetic quality of the area and result in a number of significant and

	unavoidable impacts. Additional photo simulations, or even video simulations, would not produce any additional significant impacts.
OSLFD-130	Indicating the dimensions of features in each of the photographs provides no value to the Draft EIR. Section 4.6, Aesthetics and Visual Resources, provides a discussion of the impact of the noise mitigation measures, including the impacts of the noise barriers and walls. Generally, the noise barriers would not be visible through the trees screening the area.
OSLFD-131	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-132	The removal of eucalyptus trees could affect the views of Project components. This is discussed in Section 4.6, Aesthetics and Visual Resources, in the cumulative analysis. However, mitigation measure AE-1a requires landscaping or berms to shield the Project components from views, thereby ensuring that Project components would remain hidden.
OSLFD-133	Figure 4.6-10 has been included to demonstrate the extent to which the drilling rig could be viewed. The challenge is that many views are obstructed by trees or, for farther-afield views, by buildings as well. For example views from farther away, actually had to be modified as no location could be found which allowed for unobstructed views up the canyon from near Whittier Boulevard. The photo simulations presented in the Draft EIR provide a range of views and a good understanding of the extent of the impacts of the proposed Project on the aesthetic quality of the area and result in a number of significant and unavoidable impacts.
OSLFD-134	There are a substantial number of trees located at the viewing location number 2 which effectively obstructs the potential views of the truck loading facility and the central site. In addition, near-field photo-simulations are difficult to produce in a manner that does not produce distortions and provides for photo-realistic sensations. The photo-simulations provide a good understanding of the extent of the impacts of the proposed Project on the aesthetic quality of the area and result in a number of significant and unavoidable impacts.
OSLFD-135	The workover rigs would have visual impacts that would be less than the drilling rigs, but would still be significant. It would be more difficult, however, to view a 90 foot tall structure than a 144 foot tall structure with the presence of the 70 foot tall trees in between. For example, in Figure 4.6-9, views from the school yard, only the top of the workover rig would be visible between the trees.
OSLFD-136	Numerous companies, some listed in the Draft EIR, provide lighting which can produce high lumens levels at ground level but provide for rapid reduction of lumens levels outside the radius of effect due to shielding. The lighting chosen and its ability to reduce spillover is a function more of the shielding than the lighting itself.
OSLFD-137	As no new significant impacts are associated with the use of sound walls, the discussion in Section 4.6.4.1 is sufficient disclosure of the potential impacts of the other issue area mitigations.
OSLFD-138	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-139	For Section 4.7, Transportation and Circulation, the relevant section of Catalina Avenue north of Mar Vista Street is the portion of Catalina Avenue that could generate existing traffic, for example, from homes. This is the area south of the Preserve entrance gate but north of Mar Vista Street.
OSLFD-140	The Traffic Impact Analysis conduct counts over a 24-hour period, as can be seen in Appendix E for roadways. Intersection analysis focused on peak hour

	issues, which is when intersections are at their peak use and is when level of service for intersections are calculated.
OSLFD-141	The intersection of Whittier Boulevard and Colima Road is the only Congestion Management Program intersection that could receive some traffic from the Project. This intersection has been added to the discussion of Congestion Management Program in Section 4.7, Transportation and Circulation
OSLFD-142	County of Los Angeles Fire Department (LACoFD) requirements would be implemented during the permitting phase of the Project when the Applicant applies for permits from the LACoFD for construction and review of proposed plans. Preliminary plans have been submitted to the Fire Department and these are included in Appendix A. Widening of roadways within the Preserve and implementation of fuel modification zones, as required by the Fire Department, have been included in the biological analysis, Section 4.2, Biological Resources. The new north access road would connect to the existing Preserve roadways. These are shown in Appendix A.
OSLFD-143	Applicant information was utilized as a starting point for determining the detailed vehicle trips associated with the Project. Additional information was utilized from similar projects and field experience, particularly associated with the Baldwin Hills Project and vehicle trips associated with drilling operations. Detailed traffic spreadsheets are included in Appendix A showing trips generated by the Project for each activity. The Applicant continues to indicate that they think the trips numbers are too high, which is a good indication that the Draft EIR estimate of vehicle traffic is conservative.
OSLFD-144	Passenger Car Equivalent (PCE) is based upon Highway Capacity Manual Chapter 21, Multilane Highways. As stated, the PCE is based on the type of terrain, including level terrain (PCE 1.5), which permits heavy vehicles to maintain approximately the same speed as passenger vehicles, rolling terrain (PCE 2.5), which causes heavy vehicles to reduce their speeds substantially below those of passenger vehicles, and mountainous terrain (PCE 4.5), which causes heavy vehicles to operate at crawl speeds for significant distances or at frequent intervals. The study incorporates PCE for all trucks, from small flat bed trucks to very heavy trucks. The area is a mix of both level and rolling terrain. Therefore, the study incorporated an average of the two PCE (2).
OSLFD-145	The Project Description serves as an upper limit on the Project characteristics that would be allowed under a permit. For example, if the Applicant submitted a permit requesting drilling 100 wells, this would exceed the 60 wells identified in the Project Description and analyzed in the Draft EIR and would require a separate EIR. Mitigation measures for every operating characteristic in the Project Description would be duplicative. Construction and operational employee shifts can vary depending on the contracts that the Applicant sets up with the contractor. The specific timing of the shifts has not been defined by the Applicant. Therefore, timeframes of allowable shifts have been included in mitigation measures.
OSLFD-146	Although Mar Vista Street has limits on truck traffic, the City has indicated that these limits can be exceeded for construction projects or for projects that have a destination within the area and there is no other way to access the area. Monitoring of street conditions has been added to the Final EIR in Mitigation Measure T-1e.
OSLFD-147	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-148	Mitigation measure T-1c has been modified to limit the number of daily

	vehicle trips using Catalina Avenue to less than 40 round trips, peak a.m. hour trips to less than 12 one-way, and not allowing trucks during Phases 2 and 3. This mitigates the impact associated with daily traffic increases due to the Project on Mar Vista Street. Mar Vista Street is currently operating at level of service F for the daily traffic volumes relative to the design capacity of the roadway. Limiting the Project traffic to less than 1% of the daily traffic total, with a margin of error, would ensure that the Project contribution to traffic on Mar Vista Street is below the significance thresholds.
OSLFD-149	Although Project traffic would be redistributed with the mitigation measures to limit traffic to non-peak periods, the highest impact level at an intersection is during peak hours. Moving traffic away from peak hours would not create additional peak hours during the day unless the Project traffic levels are a substantial percentage of the daily vehicle traffic. Since vehicle traffic on Mar Vista Street was counted as more than 15,000 vehicles during a 24 hour period and the Project would contribute a maximum peak-day volume of 138 one-way trips (during construction), this would not produce additional peak hours. The Traffic Impact Analysis also examines daily levels of traffic and compares these to the level of service and the roadway capacity, which indicates that Mar Vista Street could be impacted by the Project traffic. The daily traffic levels would not be redistributed time-wise by the mitigation measures. The Traffic Impact Analysis conducted 24-hour counts of roadways and these are shown in Appendix E.
OSLFD-150	The mitigation measures detailed in Appendix E, Traffic Impact Analysis, have been incorporated into the mitigation measures in Section 4.7, Transportation and Circulation. Restriping, wider radius turns, and improvements to the Colima Road access have all been included. Removal of bump-outs and landscape medians have not been included because, although they would assist with the movement of traffic, it was deemed preferable to limit Project traffic during peak periods than perform construction activities on a heavily impacted roadway.
OSLFD-151	The information in the Traffic Impact Analysis would be used by the City in assessing fair share traffic levies against this Project as well as other projects proposed in the community.
OSLFD-152	The mitigation measures detailed in Appendix E, Traffic Impact Analysis, have been incorporated into the mitigation measures in Section 4.7, Transportation and Circulation. Additional mitigation measures have been added to limit the times and routes available for Project traffic. These additional measures are feasible and enforceable by the City and have been used on numerous other projects. The Traffic Impact Analysis concludes that significant impacts remain because, without limits on when Project vehicles and access the site, there would continue to be significant impacts. Limits on vehicle access times and routes effectively mitigate the impacts to less than significant.
OSLFD-153	The Traffic Impact Analysis includes available measures for intersections that could be affected by cumulative projects. Since all of the cumulative significant impacts could be mitigated to less than significant with a fair share projects, and the remaining impacts (associated with Mar Vista Street and Catalina Avenue) could be mitigated with limits on Project access and routes (mitigation measures T-1c and T-1d), cumulative significant impacts are less than significant with mitigation.
OSLFD-154	The Draft EIR identifies the intersection of Whittier Boulevard and Colima Road as experiencing an impact from the Project that is significant but only during the peak hour. This can be mitigated to less than significant with mitigation measure T-1b; hence the use of mitigation measure T-1b. The

	Final EIR identifies the intersection as a Congestion Management Program intersection. None of the other Congestion Management Program intersections in the area are affected by the proposed Project.
OSLFD-155	Truck use is limited on Mar Vista Street. According to City staff, trucks are allowed to use Mar Vista Street if a construction Project occurs within the applicable area. This would be the case for the proposed Project. Safety improvements have been included in Mitigation Measure T-1d and signage has been added to the Final EIR.
OSLFD-156	Removal of bump outs and landscape medians along Mar Vista Street, as recommended in the Traffic Impact Analysis , have not been included in the Draft EIR as, although they would assist with the movement of traffic, it was deemed preferable to limit Project traffic during peak periods than perform construction activities on a heavily impacted roadway.
OSLFD-157	The school is located on Ocean View Avenue, which does not connect to Catalina Avenue. There is also no pedestrian access to Catalina Avenue from Ocean View Avenue and the Preserve portions of Catalina Avenue are protected from the school by fencing. There is no apparent safety issue associated with traffic along Catalina Avenue and the school.
OSLFD-158	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-159	The Colima and Catalina access have been addressed in the Draft EIR and the cumulative impacts and mitigation measures address Colima Road turning lanes and access and Catalina Avenue measures. Speed limit signs have also been included in the mitigation measures in the Final EIR.
OSLFD-160	Parking would be provided by the Applicant on the Preserve property. The location of parking and staging areas are shown in figures added to Appendix A of the Final EIR. The location would be inside the Catalina Avenue gate on the Preserve property between the Catalina Avenue gate and the Project Site.
OSLFD-161	The bike lane along Colima Road is a class II bike lane, which means that the bike lane runs adjacent to the roadway. The bike lane would be incorporated into the access road intersection following standard road design guidelines as established by the California Department of Transportation or other agencies. Bike lanes are often broken by turning lanes, as is the case currently with the Preserve and hiking trails parking lot access, which crosses the existing Colima Road bike lane.
OSLFD-162	Robert W. Anderson and Rory "Tony" Robinson are the two principals responsible for the geology and geotechnical analysis in the Final EIR. Mr. Anderson is a registered Civil Engineer in California, Washington, Oregon, Hawaii, Arizona, and Colorado. Mr. Anderson has more than 25 years experience in civil and geotechnical engineering, including more than 3,000 projects in Southern California. Mr. Anderson is an engineering reviewer for several cities, counties, and other agencies, and he has prepared or provided technical review for more than 100 environmental impact reports. Mr. Robinson is a registered civil engineer, geotechnical engineer, certified engineering geologist, and a certified geohydrologist in California. Mr. Robinson has more than 15 years of experience and has worked on more than 1,500 projects in Southern California. Mr. Robinson also has a Ph.D. in Geology from the University of Southern California.
OSLFD-163	Robert W. Anderson and Rory "Tony" Robinson are the two principals responsible for the geology and geotechnical analysis in the Final EIR. Mr. Anderson is a registered Civil Engineer in California, Washington, Oregon, Hawaii, Arizona, and Colorado. Mr. Anderson has more than 25 years experience in civil and geotechnical engineering, including more than 3,000

	projects in Southern California. Mr. Anderson is an engineering reviewer for several cities, counties, and other agencies, and he has prepared or provided technical review for more than 100 environmental impact reports. Mr. Robinson is a registered civil engineer, geotechnical engineer, certified engineering geologist, and a certified geohydrologist in California. Mr. Robinson has more than 15 years of experience and has worked on more than 1,500 projects in Southern California. Mr. Robinson also has a Ph.D. in Geology from the University of Southern California. The Final EIR requires a detailed hydrology report and Storm Water Pollution Prevention Plan after specific site plans are complete. Since the proposed development would grade roads and pads, the hydrology report and Storm Water Pollution Prevention Plan will be prepared to identify site specific conditions and drainage conditions and provide the design within the confines of the mitigation measures contained within the EIR. No identified unique conditions necessitate a hydrology report and Storm Water Pollution Prevention Plan report at this time. The Final EIR conclusions will remain valid after the analysis, since the methodology involves conventional, widely accepted techniques for this type of engineering and design.
OSLFD-164	Detention basins, required by mitigation measures WR-1b and WR-2a are conventional, widely accepted techniques for this type of engineering and design. A wide range of well-accepted methods for creating detention basins are available to mitigate any potential impacts. No identified, specific conditions would prohibit proposed development or prevent alternate designs after detailed Project plans are completed. Specific design concepts can be determined later and subsequently reviewed by the City of Whittier.
OSLFD-165	Required subsequent studies are not deferred mitigation measures. The Final EIR properly concluded that small, unimproved ephemeral tributaries are the drainage channels thru the site (Section 4.8.1.2, Surface Waters). No unique conditions would require special consideration for the drainage channels. No evidence of excessive erosion, scouring, flooding, or other features was found. Therefore, the Final EIR recommends preparing a hydrology report for areas of proposed buildings, structures, components, and pipelines. The commentator asserts, inter alia, that a series of alterations or issues will arise. The hydrology report will comply with City of Whittier and County of Los Angeles hydrology standards. The Final EIR expressly proscribes the concerns propounded by the commenter. Several available mitigation measures that are custom and practice of the industry are typical within the scope of conventional construction to mitigate any hazard or impact.
OSLFD-166	Many aspects of the baseline physical settings for surface and groundwater and the wastewater section are the same. However, both Sections 4.8, Hydrology and Water Resources, and Section 4.10, Wastewater, discuss specific relevant settings and regulations as well. For example, regulations relevant to both issue areas are applied in different contexts.
OSLFD-167	The specific dimensions and location of the detention basins will be determined after detailed Project plans are complete. Mitigation measure WAS-1b has been added and requires a Registered Civil Engineer to develop the plans.
OSLFD-168	The County Sanitation Districts of Los Angeles County require evaluating capacity prior to connection (letter February 26, 2010). In addition, the completed Project plans will include the necessary calculations for accurate determinations of effluent discharge. If the sewer line capacity is determined to be inadequate, the Applicant is required to provide necessary temporary mobile sanitary facilities.

OSLFD-169	Sewer line trenching is temporary and transient. Air emissions are encompassed by the construction emission estimates. Traffic would be included in miscellaneous deliveries and trucks (see Appendix A). If trenching activity encounters sensitive biologic areas, the sewer line would be relocated to an acceptable area or mobile sanitary facilities would be used to eliminate any impact.
OSLFD-170	Mitigation measure WAS-1 requires an assessment of existing sewer line capacity based on average and peak flows. If the study finds that the sewer capacity is inadequate, mitigation measure WAS-1b would require portable facilities. The quantity and location of the portable facilities will depend on the Project phase, activities, and other variables. The mitigation is not deferred because the action is identified, and scoped and remedial measures are provided. The question of whether the area will discharge 1,000 gallons per day can be mitigated by a sewer lateral connection to the main line or the temporary use of a mobile sanitary facility.
OSLFD-171	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan and the Resource Management Plan (RMP). However, comprehensively the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Oil and gas exploration and production are allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's RMP. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant's Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
OSLFD-172	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the General Plan.

	However, comprehensively the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Oil and gas exploration and production are allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
OSLFD-173	The City of Whittier Municipal Code specifies that any "excessive" noise or any "plainly audible" noise source would violate the standards. The Code does not specify an exact definition of what levels these are in the codes in terms of the A weighted decibel scale. Therefore, the Draft EIR has adopted specific limits on the noise generated from the Project measured as an increase over the baseline levels of 3 dBA. Any noise levels over these limits would be considered in the Draft EIR to be excessive or plainly audible and would be considered to be significant impacts.
OSLFD-174	The requirements for widening of Catalina Avenue have been removed from mitigation measure T-1e, in Section 4.7, Transportation and Circulation, as limiting the parking on the east side of the street during test drilling in order to accommodate truck traffic was considered to be as effective while not requiring construction activities in a residential area. The proposed Project significant and unavoidable impacts associated with safety,, noise and vibration would be reduced to less than significant (with mitigation for noise) by the adoption of the alternatives. The proposed Project is determined to be consistent with the City's General Plan with the adoption of mitigation measures and the use of the alternatives.
OSLFD-175	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies of the Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
OSLFD-176	As stated in Section 4.2, Biological Resources, implementing mitigation measures BIO-1a through BIO-1d would reduce impacts to the coastal California gnatcatcher.

	Further, comprehensively the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Oil and gas exploration and production are allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, " The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
OSLFD-177	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-178	Information on the 2005 Honolulu Terrace fire has been added to Section 4.3, Safety, Risk of Upset, and Hazardous Materials. The same scenario was analyzed in the Draft EIR and was determined to produce significant and unavoidable impacts.
OSLFD-179	Wildland fires are addressed in the Draft EIR under impact FP.2, Section 4.12, Fire Protection and Emergency Response, and mitigation measures are included to ensure fuel modification areas surround equipment (which is not required by the fire department) and to provide for equipment and training.
OSLFD-180	The Draft EIR provides detailed discussion on the capabilities of the Murphy Station and the Colima Road water connection in Section 4.13, Public Services and Utilities. Discussions with both the City of Whittier and Suburban Water Systems indicate that the supplies are available and would be sufficient.
OSLFD-181	Mitigation measures would be implemented and overseen by the City and other applicable agencies. As part of the mitigation monitoring plan, performed as part of the plan checks with building and safety in coordination with the County of Los Angeles Fire Department Petroleum Division, equipment spacing and code compliance would be checked. The mitigation

	measure is feasible and applicable. In addition, mitigation measures added to Section 4.3, Safety, Risk of Upset, and Hazardous Materials, in the Final EIR require third-party audits of the as-built facilities against codes and standards.
OSLFD-182	The use of a water tank is not required by codes and standards, as discussed in Section 4.12, Fire Protection. The County of Los Angeles Fire Department actually discourages tank use because of corrosion and water quality issues. Water supplies from area water mains are sufficient provided that sufficient flow, pressure and duration are available.
OSLFD-183	The requirement to have fire detection systems is not deferral of mitigation as it clearly requires the Applicant to implement fire detection systems, as listed in Mitigation Measure FP-1c and d, and the installation of fire detection systems would enhance the response capabilities and would not reveal any new, significant impacts. The response activities related to these detection systems should be included in the emergency response plans as well as the actual installation of the detection systems.
OSLFD-184	The requirements for fire roads are discussed in the regulatory section of Section 4.12, Fire Protection and Emergency Response. The Fire Department conducts plan checks and requires available fire access, to comply with these requirements.
OSLFD-185	Plans would be developed prior to the startup of operations and would be required by various agencies, as well as the mitigation measures listed in Section 4.12, Fire Protection and Emergency Response. Requiring that these plans be prepared is not deferral of mitigation.
OSLFD-186	The EIR preparers, the City, and the Applicant contacted the County of Los Angeles Fire Department, as indicated in Section 10.0, Agencies and Individuals Consulted During EIR Preparation. Project plans have been submitted to the County of Los Angeles Fire Department, and the department commented on those plans, as indicated in regulatory setting in Section 4.12.2, Regulatory Setting.
OSLFD-187	The Applicant indicated in its application and on the Project plans that their fuel modification zone would be 20 feet from pad boundaries. California Department of Forestry and Fire Prevention (CAL FIRE) requirements for buildings include a 30-foot clearance zone and a 100-foot fuel modification zone. However, CAL FIRE requirements do not apply to oil wells or processing equipment and, therefore, according to discussions with CAL FIRE, there would be no code requirements on fuel modification or clearance around any of the processing or well equipment. To ensure that the facilities do not create a wildfire, the Draft EIR requires a clearance of 30 feet.
OSLFD-188	The proposed Project would receive water from the Catalina Road water service (the City water), as indicated in the application. However, this would not be sufficient according to discussion and flow testing by the City and mitigation measures are recommended in in Section 4.12, Fire Protection and Emergency Response.
OSLFD-189	Landfills utilized as part of the proposed Project are discussed in Section 4.13, Public Services and Utilities. The amount of waste generated by the Project is small compared to the average 60 trucks per day utilizing the Savage Canyon Landfill, as indicated in Section 5.0, Alternatives. Therefore, the impacts to landfills are considered to be less than significant.
OSLFD-190	Landfills utilized as part of the proposed Project are discussed in Section 4.13, Public Services and Utilities. The amount of waste generated by the Project is small compared to the average 60 trucks per day utilizing the Savage Canyon Landfill, as indicated in Section 5.0, Alternatives. Therefore, the impacts to landfills are considered to be less than significant.
OSLFD-191	The measure to limit site clearing to preserve vegetation is included in order

	to reduce the amount of green waste generated by the Project and to enhance the recycling efforts of the Project.
OSLFD-192	The Project would actually enhance the gas transmission system by providing gas to customers and providing crude oil to refineries. Impacts related to storm water are non-existent as the Project would capture all storm-water and waste-water and prevent it from exiting the site by re-injecting it into the ground. There is no park service at the Project location. Fire service issues are discussed in Section 4.12, Fire Protection and Emergency Response.
OSLFD-193	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-194	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-195	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-196	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLFD-197	The determination of significance for environmental justice impacts is based on disproportionate impacts to minorities or persons living in poverty. The Project area, relative to the City of Whittier and surrounding areas, does not have a disproportionate percentage of minorities (based on race) or poverty. Therefore, the environmental justice impacts are less than significant.
OSLFD-198	The Draft EIR is conservative on an number of impacts, including noise (which has been demonstrated at other drilling sites to be less than the estimates in the Draft EIR by more than 5 dBA), air quality construction impacts (which could be mitigated to less than significance but has been left as significant and unavoidable due to the potential for not having clean trucks or the ability to use the Savage Canyon Landfill for excess soils), vibrations (which have been demonstrated to be less than significant at other drilling sites but was left as significant and unavoidable due to variability between drilling sites), air quality GHG emissions (due to potential for unavailability of mitigation measures), and the multiple counting of visual and noise impacts within aesthetics and land use and recreation.
OSLDF1-199	No specific mitigation measures where analysis is deferred is provided in this comment. However, the EIR preparers have reviewed all mitigation measures to ensure that no analysis has been deferred in response to this comment.
OSLDF1-200	The alternatives analysis conducted in the EIR is unrelated to the lease agreement mentioned in the comment. Alternatives analysis is conducted in the EIR based on the Project description submitted as part of the Conditional Use Permit Application submitted by the Applicant and the Project Objectives provided by the Applicant and the City of Whittier. Alternatives were then put through a screening analysis to come up with a set of feasible alternatives that lessened the impacts of the proposed Project, while meeting the main objectives of the Project. The analysis is broken down into separate components and the alternatives to those components for easier comprehension. However, additional clarifying language has been added to the alternatives discussion in response to this comment.
OSLDF1-201	Description of the alternatives is provided in Section 5.0 of the document, while specific analysis of the impacts of the alternatives carried forward is provided in Section 6.0. Additional clarifying language has been added to the alternatives discussion in response to this comment.
OSLDF1-202	The commenter assumes erroneously that alternatives need to conform to the lease agreement. Alternatives were developed for the proposed Project as

	defined in the Conditional Use Permit application by the Applicant and not the lease agreement. No restriction in acreage used was considered when looking at alternatives; however, the alternatives were considered to be of a similar size as the proposed Project, as required to meet the majority of the Project Objectives.
OSLDF1-203	Additional clarifying language has been added to the Final EIR in response to this comment. It should be noted that the truck loading facility is assumed to be integrated within the Oil and Gas Processing Facility that would be a part of the Consolidated Upper Colima Road Site Alternative.
OSLDF1-204	As stated above for response to comment OSLDF1-203, the truck loading facility is proposed to be integrated with the oil and gas processing facility. Additional clarifying language has been included in the Final EIR.
OSLDF1-205	The commenter erroneously assumes the need for the Alternatives to comply with the lease agreement and further misconstrues the provisions of the lease agreement. Please see response to comment OSLDF1-202.
OSLDF1-206	Clarifying language has been added in response to this comment. However, the Draft EIR contains detailed information about the Environmentally Superior Alternative in order to allow meaningful consideration by decision makers.
OSLDF1-207	There does not appear to be any comment in this statement and no additional response is required.
OSLDF1-208	Information on the alternatives traffic analysis has been added to the Appendix E, Traffic Analysis Report, in the Final EIR.
OSLDF1-209	There does not appear to be any comment in this statement and no additional response is required.
OSLDF1-210	The comment is unclear; however, responses have been provided to all other comments by the commenter on the various issue areas for the proposed Project. Responses to similar comments on the alternatives are referred back to the responses provided under the proposed Project.
OSLDF1-211	The California Environmental Quality Act (CEQA) requires alternatives to be discussed to a level of detail consistent with the rule of reason. As stated under CEQA Section 15126.6(a), "*There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.*" Also, under Section 15126.6(d) CEQA states, "*The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.*" Under Section 15126.6(f) CEQA states, "*The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.*"

	The Draft EIR contains detailed information about the Environmentally Superior Alternative sufficient to allow meaningful consideration by decision makers. If decision makers choose to approve the Environmentally Superior Alternative, and if the Applicant wants to proceed with that Environmentally Superior Alternative, the Applicant must then submit a detailed description to the City of that revised Project. Once that revised Project is submitted, the City must determine if the description provided by the Applicant meets the parameters of the alternative analyzed in the this EIR. If the Project is sufficiently analyzed in the environmental document, then no additional environmental review would be necessary. If the opposite is the case, then additional environmental review may have to be conducted in the form of an addendum or a subsequent EIR.
OSLDF1-212	Description of the No Project Alternative is included under Section 5.1.1 of the EIR. Additional clarifications have been added to the Final EIR in response to this comment. It should be noted, that contrary to the comment, preservation of the site would be in question in the future as a result of the elimination of the main source of funding for the Preserve once the Puente Hills Landfill closes in 2013. Under the No Project Alternative impacts could occur as a result of no additional funding being available for protection and restoration activities at the site.
OSLDF1-213	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-214	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-215	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-216	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
OSLDF1-217	The Draft EIR included analysis of various alternatives as detailed in the document. In response to the comment, the EIR preparers note that alternatives outside of the Core Habitat were looked at as part of the Upper Colima Road Consolidated and the Savage Canyon Landfill alternatives. It should also be noted that while the Core Habitat is a designation given as part of the Preserve's Resource Management Plan (RMP), the areas contemplated for the proposed Project and alternatives within the Core Habitat do not contain any High Quality Habitat as delineated by Habitat biological surveys and their RMP. In addition, the Draft EIR analyzed the Savage Canyon Landfill as a potential alternative location outside of the Preserve; however, it was determined that the objectives of the Project would not be substantially met with this alternative and it was discarded from additional consideration. As discussed in Section 15126.6, CEQA provides that: *"An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*
OSLDF1-218	The EIR preparers do not agree with the commenter's interpretation of the

	potential acreage constraints associated with lease agreement and with the role of the lease agreement in the development of alternatives. Alternatives have been developed considering the size and scope of the original proposed Project, which is considered to be in compliance with the lease agreement. It should be noted in response to the comment that the Environmentally Superior Alternative (ESA) has been developed and evaluated in sufficient detail to allow decision makers consideration. In the event that the decision makers were to choose to approve the ESA, and if the Applicant wants to proceed with that ESA, the Applicant must then submit a detailed description to the City of that revised Project. Once that revised Project is submitted, the City must determine if the description provided by the Applicant meets the parameters of the alternative analyzed in this EIR. If the Project is sufficiently analyzed in the environmental document, then no additional environmental review would be necessary. If the opposite is the case, then additional environmental review may have to be conducted in the form of an addendum or a subsequent EIR.
OSLDF1-219	The Draft EIR describes the potential for growth inducing impacts as part of the proposed Project to be limited since the Project would occur within the Habitat Preserve and is proposed to occupy only a limited amount of land to be able to produce oil and gas. Oil and gas production is limited to what is proposed by the Applicant and is intended to be able to recover oil reserves below the 1,290 acres of City owned property within the Preserve. the Applicant has determined that the majority of the oil and gas reserves can be recovered with their proposed Project and no additional projects or surface acreage would be needed in the future to produce the oil and gas. Producing oil and gas within parks or preserves is not unprecedented. As an example, many units of the national park system currently produce energy, including: Alibates Flint Quarries National Monument, Aztec Ruins National Monument, Big Cypress National Preserve, Big Thicket National Preserve, Big South Fork National River and Recreation Area, Cuyahoga Valley National Park, Fort Union Trading Post National Historic Site, Gauley River National Recreation Area, Lake Meredith National Recreation Area, New River Gorge National River, Obed Wild and Scenic River, Padre Island National Seashore, and Tallgrass Prairie National Preserve. In short, allowing oil and gas production within the Puente Hills Native Habitat Preserve is not a unique situation and would not lead to either additional oil and gas development on other parks or preserves that may not be already contemplated, and does not constitute a growth inducing impact.

December 1, 2010

Mr. Jeffrey Adams
City of Whittier
Planning Services Manager
13230 Penn Street
Whittier, CA 90602

RE: Whittier/Matrix 1280-1290 Acre, Project Draft Environmental Impact Report

Dear Mr. Adams:

This letter is written on behalf of Whittier Hills Oil Watch (commonly known as "WHOW"), an unincorporated association boasting more than 4000 members from within and outside of Whittier, who, by way of petition, have trumpeted their opposition to the Whittier/Matrix mineral exploitation project ("Project") proposed on 1290 acres of land that has been set aside for open space, park and recreational uses by Proposition A, among other laws.

These comments are submitted pursuant to the California Environmental Quality Act that provides the opportunity to officially comment on the Draft EIR (DEIR) for the above-proposed project. We firmly believe that CEQA is one of California's most important and fundamental environmental laws to guard and protect nature and society for present and future generations. While it is not realistic to review and receive 100% feedback and concurrence with these comments from our thousands of WHOW supporters I feel confident that the comments and questions that follow reflect most, but probably not all, of our most pressing concerns.

The comments will be presented under the following sections:

1. Failure to properly define the Project
2. Alternative Analysis
3. Geology
4. Fire Protection & Emergency Services
5. Socioeconomics
6. Noise
7. Hydrology & Water Resources
8. Pre-commitment prior to CEQA
9. Environmental Justice
10. Conclusion

1. Failure to Properly Define the Project

WHOW contends that the DEIR fails to accurately and objectively identify and analyze the proposed project. The project approved by the City of Whittier is the 2008 Whittier/Matrix lease. As noted in the City of Whittier's signed Mineral Extraction Lease agreement with Matrix Oil:

> The Matrix Mineral Extraction Lease provides in part:
>
> WITNESSETH: Lessor, for and in consideration of the rental paid upon execution hereof, receipt of which is hereby acknowledged, and Lessee's

covenants and agreements hereinafter contained, does hereby lease, let and demise unto Lessee the land hereinafter described (hereinafter called the "Leased Land"), subject to the covenants, conditions' and limitations hereinafter set forth, for the purposes and with the exclusive right of exploring, prospecting, mining, drilling, and operating the Leased Land for oil, gas, other hydrocarbons, associated substances, sulfur, nitrogen, carbon dioxide, helium and other commercially valuable substances which may be produced through wells on the Leased Land, similar to the above-mentioned substances except for water (but not excepting water which may be produced in association with leased substances which may be used by Lessee in its operations on the Leased Land, but not sold) and geothermal resources (hereinafter collectively called "substances") and producing, extracting, taking, treating, storing of oil, removing and disposing of such substances from the Leased Land together with the right to construct, erect, maintain, operate, use, repair, replace and remove pipelines, telephone, telegraph and power lines, tanks, machinery, appliances, buildings, and other structures, useful, necessary or proper for carrying on its operation on the Leased Land, and rights-of-way for passage over, upon and across and ingress and egress to and from the leased land, or neighboring lands pooled therewith for any or all of the above-mentioned purposes. Lessor shall have the right to occupy and use the leased land in any manner and to any extent not inconsistent with Lessee's rights or in interference with Lessee's operations hereunder. The land hereby leased is situated in the County of Los Angeles, State of California, and described in Exhibit "A", attached hereto and incorporated herein by this reference, and containing 1280 acres, more or less. (Emphasis added.)

4.2. Continuous Operations. If Lessee has complied with the drilling obligations set forth in Paragraph 4.1, then Lessee may at its option maintain this Lease as to all of the Leased Lands by conducting a continuous development program. For purposes hereof, a continuous development program shall mean that Lessee commences the drilling of a well and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned, on or before one hundred eighty (180) days from the later to occur of (i) expiration of the Primary Term or (ii) the completion of the last well commenced during the Primary Term. Thereafter, in a like manner Lessee shall within one hundred eighty (180) days after the completion or abandonment of the preceding well commence drilling operations for another well for oil and/or gas and prosecutes the same with reasonable diligence until oil, gas or another of said substances is found in paying quantities, or until it is drilled to a depth at which further drilling

WHOW-1

would, in the judgment of Lessee, be unprofitable or impractical and said well is abandoned; provided, however, in the event that Lessee has two or more wells drilling at anyone time, the continuous development obligation shall not require subsequent wells for each of such wells, rather compliance shall require that no more than 180 days lapse in which there are no drilling operations being conducted on the Leased Lands. For the purpose of determining the commencement of a one hundred eighty (180) day continuous development period, a well shall be deemed completed at the earlier of 1) the date the official completion report is filed with the Division of Oil, Gas and Geothermal Resources or 2) the date the completion unit is released from the location. Upon the expiration of the continuous development program, the Lease shall expire, and Lessee shall quitclaim this Lease, as to all lands not then located in a Well Tract upon which there is a well that is producing, or is capable of producing and which is thereafter diligently returned to production.

Lessee may drill as many additional wells as it may elect in excess of the number required for the Leased Land to be considered fully drilled. (Emphasis added.)

17. Definitions. The following terms or phrases, and variations thereof, except where the context requires a different meaning, shall have the following meanings in this Lease:

(b) Lessee shall have met its minimum development program under Paragraph 4 and the Leased Land shall be deemed "fully drilled" when there has been drilled a sufficient number of oil and/or gas wells to earn Well Tracts, as hereinafter defined, to encompass all of the Leased Land.

(d) A “Well Tract” as used herein shall mean the following:

i. In the case of an oil well producing from a depth of 4,000 feet or less – forty (40) acres;

ii. In the case of an oil well producing from a depth of 4,000 feet to 8,000 feet or less – eighty (80) acres;

iii. In the case of a well producing from 8,001 feet or deeper – one hundred twenty acres;

iv. In the case of a gas well producing from a depth of 8,000 feet or less - one hundred sixty (160) acres;

v. In the case of a gas well producing from 8,001 feet to 12,000 feet - three hundred twenty (320) acres;

vii. In the case of a horizontal well - 240 acres in compact shape evenly spaced on either side of the horizontal or near horizontal portion thereof open to production.

viii. In the case of substantially deviated well - the greater of eighty (80) acres, or the acreage earned by the depth of the producing interval thereof, or if such well is of the type described in subparagraph ix., below, the acreage therein provided for.

ix. In the case of a well drilled into multiple, separate, accumulations of oil or gas which are reasonably determined to be capable of production in paying quantities, 660' on either side and 330' on either end of that portion of the well bore from the first such accumulation encountered to the last such accumulation encountered and open to production.

The DEIR examines a proposed project that has consistently been characterized by the City as a seven-acre oil-drilling project. It is evident from the 2008 Whittier/Matrix lease that rights of exploitation apply to all 1280-1290 acres and include mining and other rights that are substantially invasive and threaten to consume all 1290 acres of Proposition A open space acquired for preservation and restoration of natural habitat and recreational activities.

Whittier's failure to commission a DEIR that examines all of the rights transferred to Matrix Oil in 2008 is a classic illustration of piece-mealing under CEQA.

2. Alternate Analysis

Comments in this section are not intended to advocate for a particular drilling alternative or access road, but instead addresses reasons the DEIR is fatally flawed. Glaring oversights and manipulation of facts and data merely serve to mask the fact that the "No Project" alternative is the only feasible alternative.

This DEIR was to consider alternative sites for the proposed project. These alternatives "would avoid or lessen any of the significant effects of the proposed project". Section 5.0 addresses the "Whittier Project Alternative Analysis" and Section 6.0 is a "Comparison of Proposed Projects and Alternatives".

It is WHOW's position that DEIR is either biased or flawed, or both, in failing to make a fair and reasonable assessment of the project alternatives. Section 5.12 lists five possible locations for facilities.

1) A consolidated Central Site
2) A Savage Canyon Landfill Site
3) An upper Canada Canyon Consolidation Site
4) An Upper Colima Road consolidated Site
5) The Historical Chevron processing Facility Site.

DEIR Figure 5-1 is a map that depicts these five sites. Rather than evaluate all five sites, the DEIR instead took an unwarranted "screening approach" to blithely eliminate alternative locations at #2 Savage Canyon Landfill and #3 Upper Canada Canyon Consolidation. A cursory view of the map in figure 5-1 clearly shows that these two alternate locations would merit serious consideration given

that they are considerably further away from schools, homes, public recreation trails and little league fields.

These two superior locations were not fully evaluated in the DEIR even though they satisfied the following self-imposed screening limits:

- The alternative is technically feasible;
- The alternative would lessen potentially significant impacts of the proposed project; and
- The alternative would attain most of the basic objectives of the Project.

WHOW-2

Specifically, Section 5.1.2 of the DEIR states:

> The ability to extract oil and gas from the reservoir by directional drilling is a function of the depth of the oil and gas containing layers and the size and ability of the drilling rig. In general the shallower the layers, the closer the well must be to the drilled area. The larger the drilling rig, the farther the wells can be from the area. The ratio of the horizontal distance to the vertical distance is called the "throw ratio." For the proposed drilling rig, Matrix indicates that a throw ratio of 4.0 could be achieved with a maximum horizontal distance of 7,000 to 8,000 feet.
>
> In general, the alternative sites would have to be near the proposed Central Processing Site (within 0.5 miles) to drill and extract the resources from both the north end and south end of the delineated reservoir while not exceeding a horizontal to vertical throw ratio of 4.0 or a distance of 8,000 feet.

The fundamental analysis belying these above referenced statements is now being challenged. Matrix Oil has a public web page www.whittieroil.com. Under the header "Environment & Technology" Matrix boast of their Horizontal Well Technology. Specifically stating that:

> "Many advances have been made in oil field technology in the last 20 years. ***One of the impressive advances is in drilling technology that allows for the drilling of long reach wells up to 10 miles away from a central point.*** Typically distances away from a central point or pad range from one to three miles. This allows many wells to be drilled from one point and thus minimize the impact to the surrounding areas. "(Emphasis added. See Exhibit 1)

Matrix goes on to boast that "All of the proposed Matrix wells will be high-angle and long reach wells."

WHOW's challenges to this DEIR section are:

1) By Matrix's own admission the technology reaches 10 miles away (52,800 feet). This ten mile radius should be the standard discussed in 5.1.2; that the "distance must be within directional drilling technology's reach limits and still enable recovery of a sufficient percentage of the reserves." The standard used in the DEIR of 8,000 feet is "short-arming" and is inappropriate.

2) The assumption used in the analysis is that "in general the alternative sites have to be near the proposed Central Processing Plant." The Central processing Plant is not limited to only one location, nor is the 0.5 mile standard use consistent with the

WHOW-3 technology of horizontal drilling as proffered by Matrix on their website. The Central Processing Plant should not be given as one fixed immovable location. The lease is for the entire 1290 acres. The alternate site analysis should consider the Central Processing Plant on both the Savage Canyon Landfill site and Upper Canada Canyon or any other area in the project.

WHOW-4 3) Even using Matrix standard of 8,000 feet the original proposed project was within 400 feet of schools and homes. Intuitively any fair and reasonable alternate site analysis would start at a distance at least 6,000 to 8,000 from these homes and school.

WHOW-5 4) Sections 5.0 and 6.0 fail to consider alternatives of a reduced number of locations and "still enable recovery of a sufficient percentage of the reserves."

WHOW-6 5) Sections 5.0 and 6.0 fail to consider fewer pad acres as an alternative and "still enable recovery of a sufficient percentage of the reserves."

WHOW-7 6) Sections 5.0 and 6.0 fail to consider fewer wells as an alternative and "still enable recovery of a sufficient percentage of the reserves.

WHOW-8 7) Sections 5.0 and 6.0 fail to consider the changing of the location of the Central Processing Plant.

WHOW-9 8) Section 5.0 and 6.0 fail to consider any alternative within the ten mile horizontal drilling radius and artificially impose an 8,000 feet outer limit.

WHOW-10 9) The DEIR relies on the information provided by inherently biased Matrix instead of relying on independent outside expert advice. The writers and analyst of the DEIR failed to investigate Matrix own website.

WHOW-11 10) The reference section lists a Carl Hathaway of Kenai Drilling. It is unclear whether he consulted on this section. It is also unclear of Hathaway's drilling expertise. His biography obtained on Kenai's website states that he worked on reserves reporting for Getty and then worked in the environmental and regulatory areas with Texaco. It does not state he is a petroleum engineer or if he has any expertise in actual oil drilling, horizontal drilling or any actual oilfield experience.

WHOW-12 11) The maps and pictures used in Figures ES-3; 5-1; 5-3; 5-4 fail to include a "scale" which would provide the reader with a measuring benchmark to approximate distance.

Section 5.1.2.2 states that the Savage Canyon Landfill Site is owned by the City of Whittier. As previously stated this alternative would be furthest away from schools and homes compared to the other alternative sites and is already environmentally compromised as a landfill. The property, as seen in figure 5-3 is already graded and has the selected access road. In addition the noise, air quality, recreation, aesthetics and safety to mention a few provide a significant lesser environmental impact.

That the DEIR summarily dismissed this as a viable alternative is inexcusable and shines a bright light on the skewed objectivity of the analysis.

The DEIR curtly rejects analyzing this site stating:

WHOW-13

> "However, the land use impacts under this alternative would require significant amendments to the existing landfill permits with the State that could take a long time to achieve. It is also unknown whether such an activity would even be approvable with the constraint of landfill operations and state and federal regulations. Finally to reach sufficient quantities of the oil reservoir this alternative would require drilling within the Preserve (at the East Well Site) In addition to drilling at the landfill, which would retain the aesthetic and recreational impacts associated with the East Well Site.
>
> The alternative appears speculative and out of the jurisdiction control of the City and therefore has been eliminated from further consideration. "

How is completing an EIR and applying for a Conditional Use Permit to change the use of a Natural Preserve and Habitat to a Proposed Oil Field any more significant and time consuming than putting an oil field in a landfill already owned by the City of Whittier? But the DEIR is unyielding and refused to even analyze what the significant impacts would be using a new standard that "It might take a long time to achieve."

The statement that "it is out of the jurisdictional control of the City" cannot be taken at face value. The proposed project is part of an LA County Prop 'A' Bond and written binding County Project Agreement. WHOW is unaware of prior mention that dealing with the County on the proposed oil field was "out of the jurisdictional control". In fact the City of Whittier has even gone so far to hire an unregistered lobbyist Esther Feldman to allegedly lobby the Los Angeles County Board of Supervisors at a cost of in excess of $200,000.

The DEIR also states that to reach sufficient quantities of the oil, the reservoir would require drilling at the East Well site. Again Matrix states they can drill horizontally ten miles. These two sites are less than two miles apart. And even if true regarding the reservoir, the alternative analysis should consider be that only drilling at the Landfill and recovering a percentage of the oil offers a mitigating effect. An alternate analysis should include drilling fewer wells, in fewer locations on fewer acres.

Lastly, the DEIR fails to acknowledge a material fact that the Savage Canyon Landfill currently hosts a methane gas plant and that this was the location of over 15 wells when Chevron Oil operated the field.

The DEIR is irreparably flawed by failing to include a complete analysis of Savage Canyon Landfill as an alternative.

These significant errors and omissions expose the biases in the approach to fairly analyze project alternatives. It is hereby requested that the Sycamore Canyon site be fully analyzed as a project alternative and not screened out as a viable technical site that would "attain most of the basic objectives of the Project".

Section 5.1.2.3 discusses the alternative at Upper Canada Canyon Consolidated Site (3). This site was preemptively eliminated. The first reason given is "drilling from this location would not be able to reach into some of the proposed reservoirs to the central and east areas as proposed under the Project without using a larger drilling rig as previously discussed." If the larger drilling rig is required and is much further back in the reserve then it will be out of the line of sight.

We have already stated that Matrix's website acknowledged they have the technology "to reach wells over ten miles away". And further have commented that the Central Processing Plant is not a fixed location and that alternatives locations for the Central Processing Plant should be re-examined.

The section candidly admits "this alternative could eliminate or reduce impacts related to construction and operation of the facilities on the surrounding residences since, under this alternative the facilities would be tucked further away deeper within the Preserve. Issue areas likely to improve under this alternative include the risk of upset, odor impacts associated with air quality, aesthetics, and noise. These impacts would be reduced because of the more remote location of the facilities and the correspondingly greater distance between residences and the drilling and processing operations.

The DEIR drafters come up with a double edged argument against the Upper Canada Canyon location that should be of great concern to all the proposed locations and question the true viability of the entire project. The drafters argue that by moving approximately 2,000 feet deeper into the project site there is serious risk of fire protection and geological issues with the Whittier Earthquake Fault. If there are fire and earthquake concerns in Upper Canada Canyon then those same concerns should be seriously considered in the entire project area. To opine that a mere 2,000 feet changes the risk of an earthquake or raging fire grossly underestimates the devastation that either of these events would bring. The entire 1290 acres proposed project area is a listed and known hazardous fire area which lies on a known active earthquake fault. The same reasoning should be applied to the entire project area and not isolated to one Upper Canada alternative.

WHOW-14 In addition this section states that the Upper Canada Canyon site is incompatible with the Preserves Resource Management Plan (RMP). This entire project and all locations are incompatible with the Preserves Resource Management Plan. There is nothing in the RMP that allows for, nor selects a site for oil drilling.

We firmly believe that the Habitat's Resource Management Plan drafted in 2007 should be the guiding light and that NO PROJECT alternative is viable. But to use the RMP as a criticism on one location and not the other locations protected by the same RMP again reflects poorly upon the objectivity of the drafters of the DEIR.

This Upper Canada Canyon location merits a full and complete analysis to determine what the potential significant impacts are and to assess them against the other locations. Granted that this location may encroach core habitat, but the analysis is to determine which has the fewer and unavoidable impacts. The determination is not whether it impacts only animals and flora and to ignore the lesser impact on schools, homes and individuals. The inclusion of this location and analysis is for the citizens of Whittier, the council, staff and planning commission to be given fair and reasonable alternatives, not prejudged by a select few biased DEIR analysts.

The DEIR alternate site analysis failed to show the locations of the previous wells that were drilled by the old Chevron Oil exploration before it was shut in. At a Friendly Hills Property Owners Meeting on April 22, 2009 an overhead presentation of map of the original wells clearly demonstrated that there numerous working wells on the Savage Canyon Landfill and the Upper Canada. This is further evidence that these alternate sites must be considered. (See attached Exhibit 2).

Also at this same Friendly Hills Meeting an additional overhead showed that Directionally Drilled wells from Sycamore Canyon and the Honolulu Terrace Drill site were viable

alternatives. The overhead depicted the great lengths these wells could go to reach the oil in the Project area. (See attached Exhibit 3)

The DEIR did not provide any similar maps or pictures illustrating the direction, reach or number of directional horizontal wells overlaid the Project area even though this was a "sales tool" initially used to get local residents to buy in. This information obviously has been withheld from the DEIR and again reflects on the bias of the report. These same types of maps must be included, considered and analyzed in the DEIR.

WHOW-15 Other Alternative Analysis should include Matrix existing Sycamore Canyon Oil Field and the Honolulu Terrace operation as alternate drilling, well and processing plant sites. Matrix has established that horizontal drilling can be used up to 10 miles. By using the existing Sycamore Canyon and Honolulu Terrace site the redundancies of the upset of the environmental effects would be significantly mitigated.

3. Geology

The City of Whittier experienced a devastating earthquake in 1987 that is still very much on residents minds. Driving through Uptown Whittier some 23 years later, empty lots of building destroyed serve as current reminder of the ruin inflicted by the 5.9 Richter scale earthquake. The proposed project sits directly on this same active fault line. The earthquake risk is of paramount importance to local resident. The DEIR fails to address this issue in a meaningful manner.

The DEIR states on page 4.4-10 - "However, onsite investigation and soil testing **did not perform** a liquefaction analysis to assess liquefaction." Given this project lies on an active earthquake fault it mandates a liquefaction analysis be performed. Also do the Swiss cheese effect of horizontal drilling and the injecting of vast amount of water into 60 wells exacerbate the liquefaction and/or increase seismic activity risk. The EIR is flawed because no such analysis was performed.

The DEIR failed to include maps from the State of California showing Seismic Hazard Zones. Attached is an example of the type of seismic map that unequivocally shows the areas in or near the project area subject to liquefaction or earthquake induced landslides. It is not only unconscionable but shameful that this substantial liquefaction and landslide risk assessment is omitted. A close inspection of this map reveals that parts of the project area are subject to liquefaction or landslide risk. (See attached Exhibit 4).

WHOW-16 The DEIR in table 4.41 provides a partial list of nearby earthquake faults. This partial list fails to include the San Andreas Fault and the San Jacinto Fault. All Californians know and worry about the "big one". This partial list excludes the most obvious and feared earthquake fault line.

The DEIR concludes in a grossly understated and insouciant manner at the bottom of page 4.4-8 :

> **"However it is probable that the Project areas will experience at least one major earthquake during the next 50 years"**

There is no further supporting data or statistical analysis put in any table format quantifying what the potential damages to loss of live or property would be from this probability. A much deeper explanation of "it is probable" needs to be explained including the actual probability, the potential locations and the magnitude. Further this explanation needs to address "*at least one* major earthquake". Dr Kit Miaymoto, who specializes in earthquakes and structural engineering, stated at

the 2010 Imminent Danger Symposium that in California, the bad news is we have a major earthquake every 10 years.

WHOW-17 The geology section also fails to address that concomitant risk of oil and gas explosion from the wells and or pipelines rupturing from earth quakes creating uncontrollable fires or toxic gas leaks.

WHOW-18 Many of the mitigation measure cited at page 4.4 22-23 are future soil studies and soil engineering issues to be performed in the future and given to City of Whittier engineer. Page 4.4 -22 states

> "No specific testing and evaluation was performed in these areas to further assess the hazards. As such, all construction and improvements to be situated in and adjacent to these areas will require additional studies and mitigation measures to remediate the hazards in accordance with the County of Los Angeles Geotechnical Report Standards, State of California Special Studies 117 for seismic hazards and liquefaction and the standard of practice."

Page 4.4-23 candidly confesses:

> The appropriate mitigation measure from a geotechnical, land use and economic standpoint *can be determined in subsequent studies* that should be reviewed and approved by the City of Whittier. (Emphasis added)

These geotechnical studies must be done before the EIR is approved. Again, this is not only piece-mealing the EIR in violation of CEQA, but withholding critical information absolutely essential to properly assess the potential effects on the proposed project.

WHOW-19 The DEIR fails to substantially address the risk that horizontal drilling can increase the risk of seismic activity. Even cursory comments such as those found on 4.4-22 are alarming.

> "However directional drilling could encounter splays that would be prone to sympathetic movement as a result of a significant event along the Whittier Fault or another nearby fault.
>
> If an earthquake occurred along one of these faults, the integrity of the well bore could be compromised where the borehole traverse the rupture surface. In the unlikely event that this occurred, under the worst-case scenario, the borehole could be sheared and sealed, thus preventing additional oil from the well."

This sounds like the recent Gulf Oil British Petroleum disaster just witnessed, waiting to recur. We all watched on television in awe how long it took to seal that well. In addition the use of the term "splays" is a blatant attempt to obfuscate the risk. Splay is a euphemism for open, spread apart or turn out. In other words burst or break. Should the tectonic plates shift 6 inches how many of the proposed wells would "splay"?

WHOW-20 The document also specifically fails to illustrate the number of wells, their location, the length and the direction of the horizontal wells across the fault lines. Given that three different well sites are listed in the project description, homeowners would also like to know how close these horizontal wells come to their property lines.

The use of directional drilling in the project area, which lies directly on an active fault line creates a completely unacceptable risk for the citizens of Whittier.

For the above-mentioned reasons the geology section of the DEIR is grossly inadequate, fatally flawed and not curable by mitigation measures.

4. Fire Protection & Emergency Services

The Project area is in a Very High Hazard Severity Zone. The wildfire history of the Puente Hills area indicates that 85 fires have occurred since 1928. That averages out to nearly one fire per year (85 fires in 88 years). True to the averages, one fire broke out in the Project Area last September 2010.

WHOW-21 The DEIR provides that "fuel modification areas create at least 30 feet clearance from all oil field equipment to reduce the potential for ignition sources for starting wildfires." This proposed 30 feet fuel modification zone appears to be grossly inadequate. No consideration is taken of the fact that the strong ocean breezes in the hills can propel these sparks greater than 30 feet. In addition, with oil towers that are 130 feet tall a 30 foot fuel modification zone would be insufficient based on a tower toppling, teetering or throwing off sparks. At a minimum the fuel modification zone should be 130 feet around any oil field equipment.

WHOW-22 The mitigation measures do not include any fuel modification zones for the schools and residences that abut the outer limits of the project areas including such streets as Ocean View, Lodosa and Catalina. Currently the city does a weed abatement, with a 100 foot clearing, once a year. The mitigation measures for the school and homes should include an optimal fuel modification zone of 400 feet for the school and 200 feet for residences. This would include replacing the existing vegetation with drought resistant, low fuel volume plants. In addition these areas should also be provided with fire foam equipment, a commercial quality sprinkler system and numerous fire hydrants. The weed abatement program should be performed four times a year.

WHOW-23 The DEIR provides no maps illustrating how many fire hydrants exist in this 1290 acre project and their source. It is interesting to note that the City of Whittier along with the Los Angeles County Fire Department are always first to require that new commercial developments have fire hydrants within prescribed distances. However, in this case even though there is a very substantial history and risk of fire, the only new hydrants are near the pads, which will be used full time to pump water into the wells.

WHOW-24 The DEIR is also deficient in that it does not provide for an emergency response plan. Again the submission of this emergency response plan is required after the CEQA review. This emergency response plan should be mandated to be included in the DEIR.

WHOW-25 The DEIR also fails to mention the highly combustible, high risk eucalyptus trees in the Project area. The City has previously removed hundreds of these eucalyptus trees in a clear cutting manner that left behind a moonscape-like effect. The reason for this clear cutting presumably is that eucalyptus is not indigenous to the area. The silence on this eucalyptus tree issue leaves the community in the unknown on whether it is the intention of the city or Matrix to remove thousands of eucalyptus trees and what if anything would replace them. In addition, how would the unexplained tree removal coincide with the Habitat Authority Resource Management Plan? The DEIR needs to incorporate a map of the current eucalyptus trees and a description of the number of trees to be removed, if any.

The DEIR also fails to provide any information on availability of aerial fire fighters including helicopters and air tankers. The recent September 2010 fire is a stark reminder of the need for these

WHOW-26 capabilities. There is no description of the agency, the resources available, the distance, the response time, the equipment available or the location of this extremely valuable firefighting component.

WHOW-27 Lastly no mention of the spacing of the number of wells is mentioned in this section. Given that there are 60 wells on three proposed sites or approximately 10 wells per acre does this density create an additional risk of fire hazard? One method of mitigation would be to have fewer wells thereby increasing the spacing.

5. Socioeconomics

Proposition A provided that its assessment provided a special benefit to assessed properties. One of those benefits is enhancement of real property values. Proposition A, by implications disallows usse of Proposition A assets in a manner that would eliminate the special benefits approved by Los Angeles County voters. WHOW contends that any such misuse of Proposition A assets, in this case the 1290 acres of open space, would effect a violation of Proposition 218.

WHOW-28 Section H of the DEIR addresses the Socioeconomics costs and impacts of the proposed project. Page H-8 of this section refers to AECOM as the consultant used in obtaining research. The document states:

> The average price per home, using 2009 assessed values using 2009 assessed values for homes within the noise contour is $381,000. The average price per home for homes within the visual shed is approximately $331,000. The total assessed value of homes affected by the potential noise and visual impacts project is approximately $59 million.

This analysis is seriously flawed and grossly understates the economic impact. The consultant used "assessed values" rather than "current market values". A simple Zillow.com research illustrates the value conclusions are a gross misrepresentation.

Attached are three sample Zillow addresses in the "visual shed" of the project and the Zillow valuations. (See attached Exhibits 5-7)

15017 Lodosa Drive	4,426 sq ft /25,000 ft lot	abuts project	$1,070,000
15503 Lodosa Drive	3,159 sq ft/ 12,396 ft lot	direct visual line	$756,000
7904 Ocean View	2,014 sq ft/ 10,400 ft lot	abuts project	$621,500

The DEIR fails to state that many of these homes in the visual shed and noise contour are in the communities of Mar Vista Heights and Friendly Hills – both considered very desirable premium locations. Many of the homes that directly abut the project are custom homes on minimum one- half-acre lots. The range of fair market values in "old Friendly Hills" is $899,000- $1,119,000 as depicted on the "zestimate" range.

Certainly AECOM had access to this data but chose to ignore it to understate the impact. AECOM credibility must be further questioned in that they did not obtain "comparable sales" data from the multiple listing service for the relevant area or well known services such as Comps, DataQuick and Costar. In addition, the report fails to name "local realtors" that were interviewed. It is suggested that AECOM interview Lori Breitman, Marti Jordan or Carla

Lowinger all who have intimate professional knowledge of this segment of Mar Vista Heights and Friendly Hills. It is also uncertain what professional credentials AECOM had. A more appropriate evaluation of the deprecation of values would include California licensed appraiser or M.A.I certified.

The Consultant AECOM inserts page H-30 which depicts the "key factors" in home purchase decisions. Based on this 2010 Fannie Mae survey the key factor is the "Safety of Neighborhoods" chosen by 43% of respondents. Clearly a toxic oil field spewing carcinogens, with fire and earthquake risks would not make this Whittier neighborhood desirable as a safe neighborhood.

It is certainly not surprising that AECOM distances itself from the liability associated with these specious valuation with the exculpatory statement on page H-5:

WHOW-29

> "Further AECOM has served solely in the capacity of consultant and has not rendered any expert opinions."
>
> "This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations."

The biases of the report are also well documented by the admission that

> "This study is based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and *consultations with the client and the client's representatives."* (Emphasis added).

AECOM further relies on studies from Boxal (2005) showing depreciation of between -4.0% and -8.0% and Davis 0f -3.0% and -7%. Both of these studies were analyzed to include distances of 2.0 to 2.5 miles of the noise and visual shed. (Page H-30) AECOM's damage analysis includes only the immediately impacted areas of approximately 1000 feet. This evidences another flaw. The economic analysis should, at a minimum, consider all the home values within a 2.0 to 2.5 mile range.

WHOW-30

The Boxal study is on rural property in **Alberta, Canada**. Peter Boxal is a professor at the University of Alberta in Canada. The title of the study is "The impact of oil and Natural Gas Facilities on **rural** residential properties." The sizes of the properties examined in Canada were 1 acre to 40 acres. This study methodology did look at the impact within 2.5 miles whereas the DEIR only looked at the immediate 1,000 feet radius to homes. The study did find 'The results of this analysis strongly suggest that the presence of oil and gas facilities can have significant negative impacts on the values of neighboring rural residential properties. Other studies they refer to were for airport traffic, cell towers, and high voltage transmission lines.

WHOW-31

The report is also deficient in that it states that only 95 homes will be affect by noise and 70 by visual shed. If these homes in the most desirable part of Whittier decline by 10% -30% that impacts the comparable values of all homes in Whittier. Substituting a major oil field operation for a natural preserve negatively impacts the entire Whittier residential real estate market.

WHOW-32 Further any comparison to home values in the Honolulu Terrace operation owned by Matrix would be flawed. The residents, including city councilman Bob Henderson receive substantial oil and gas royalties which may have an upward impact on value. No royalties are being paid to the residents abutting the project. Instead the city is allegedly contracted to receive a 30% royalty.

WHOW-33 Table 16 of this section quantifies the loss in home values based on assessed values only as it impacts the city of Whittier tax rolls. The report fails to consider the potential legal liability for class action lawsuit based on all unforeseen liabilities from diminution of property value due to carcinogens or water contamination lawsuits or fire from oil field operations. It is almost inevitable that the city will be forced to defend these suits for years to come. Homeowners are entitled to the quiet enjoyment of their property. Once drilling commences, it is foreseeable that homeowners would band together to litigate "taking" damages caused by noxious intrusions onto real property such as noise, fumes, dust and vibration.

Oilfield litigation precedents are well known in Bolsa Chica, Montebello, Santa Barbara, and Baldwin Hills. Empirical evidence demonstrates that it is common for litigation to last ten to twenty years. The expense and time delays of this litigation to the city could be staggering.

In addition the DEIR fails to consider the very real possibility of a class action lawsuit from the municipal bondholders who purchased over $500 million of Prop A bonds. These tax free municipal bonds preclude entering into business with for-profit enterprises (like drilling for oil with Matrix). Should these bonds lose their tax exempt status the interest damages for each year would be $30 million per year. Clearly any economic evaluation should assess this significant liability and not just look at the rosy speculation of higher oil prices.

Section H of the model also does an economic forecast of the proposed fiscal benefit to the City. Table 17 on page H-64 shows 30 Year Fiscal Benefit based on a low and high price for crude. The analysis is a "30 Year Fiscal Benefit". The analysis is fundamentally flawed in that it is based on the following comment

> "All assumptions regarding future royalty payments made to the City are based on the executed "Oil, Gas and Mineral Lease" between the City and Matrix Oil. "

This blanket assumption made in Section H fail to consider the 1993 "Project Agreement" entered into between the City of Whittier and Los Angeles County for the purchase of the 1290 acres.

The DEIR assumes that the entire 30% royalty would be received by the City. It fails to consider the 1993 Los Angeles County Project Agreement "which states, "Applicant shall *reimburse the District in an amount equal to the greater* of 1) the amount of grant monies provided under this Agreement; 2) the fair market value of the real property; or 3) the *proceeds from the portion of the property acquired, developed, improved, rehabilitated or restored with grant monies."* Based upon the plain reading of this binding Project Agreement the County would be entitled to all the proceeds with none going to the City of Whittier. Section 8.2 of the 2008 Whittier/Matrix lease would permit Matrix to drill while all royalties are paid to the County of Los Angeles. The analysis further fails to consider the value of the 1290 acres, given the inflated royalty and supply projections for uncultivated oil.

Whittier would be mistaken in its belief that it only needs to reimburse the district for the value of surface rights, when the mineral rights were also purchased with Proposition A funds.

WHOW-34 Public comments made by city council members suggest that whatever proceeds the city may receive, these funds could only be used in the Whittier Parks Department and could not be part of the city's General Fund. While Whittier could redirect the current Parks Department budget to backfill the General Fund, any special benefit to Whittier residents, not contemplated by the Proposition A assessment would likely result in a violation of Proposition 218, "The Right to Vote on Taxes Act."

The "Project Agreement" also prohibits it "enter into any contract for the management or operation the Project or any portion thereof, except with a governmental agency or a *nonprofit corporation* that is exempt from federal income taxation pursuant to 501(c) (3) of the Internal Revenue Code." Matrix Oil is not a non-profit corporation.

As previously mentioned there is a significant risk of a class action lawsuit from municipal bond holders. The "Project Agreement states "In order to maintain the exclusion from gross income for federal income tax purposes of the interest on any bonds, notes or other evidences of indebtedness issued for the purpose of providing the grant monies made available in this agreement, Applicant covenants to comply with each applicable requirement of Section 103 and Sections 141 through 150 inclusive of the Internal Revenue Code." The DEIR socioeconomic impact fails to consider this rudimentary element of municipal finance.

It is also worth noting that the socioeconomic benefit neither provides schedules for the full 30 years showing of project income and expenses; nor does it use any financial present value analysis. These are fundamental for any complete and thorough evaluation. Instead the DEIR makes general conclusory statements.

One of Matrix's listed objectives was to "stimulate the local economy by providing opportunities for qualified local businesses to sell goods and services and for qualified workers to apply for jobs." This public-private business relationship will trigger "prevailing wages". The DEIR is silent on prevailing wages.

6. Noise

One of the greatest concerns to residents is noise and vibration resulting from the oil drilling. The proposed drilling is a 24 hour a day operation 7 days a week.

The DEIR states

> If test wells prove to be viable the Central Processing Site would be constructed and drilling would thereafter commence at the three pads sequentially. This drilling would last for an estimated 5 years and during this time, both drilling and processing site noise would occur simultaneously.

The City of Whittier knew that their existing municipal code would not allow this type of noise generating drilling operations and the City would be forced to prosecute the offender as a public nuisance to enforce the code. The simple solution for this was for the City to change

the law. On January 12, 2010 the city repealed the existing code sections 8.32.010-8.32.120 and enacted a new Chapter 8.32 which was significantly more lenient.

WHOW-35 The DEIR states on 4.5-17 that the new code is "more general in nature and **does not** prescribe specific noise limits." It also states that "Vibration is not mentioned in the current City Municipal Code."

The audacity of the City to blatantly change the rules to fit to their needs modifies the city golden rule from "He who has the gold makes the rules" to "He who has the oil makes the rules."

WHOW requests that the DEIR analyze the noise and vibration effects on the environment using the pre-existing standards that prevailed when the lease was signed. It is not clear that any adequate CEQA analysis was performed for this change. This is yet another example of piece-mealing. The EIR should have been performed prior to the lease being signed. To allow for the city to change the municipal code effectively allows them to change the standard of review for the EIR.

As discussed at a later point in these comments, this changing of the municipal code demonstrates a pre-commitment and direct course of action to project approval by Whittier. It is unconscionable that the city would use this sleight of hand to rig the outcome of noise section of the DEIR.

WHOW-36 Mitigation measure in this section that are particularly deceptive are "quiet mode" and "construction hours / construction activities". As previously stated drilling will be round the clock day and night. "Quiet mode" only refers to turning off back up alarms, using radios instead of voice and minimizing deliveries during daylight hours ." The proper mitigation standard would be to not allow drilling from 7:00 pm to 7:00 am. It is the incessant running of the annunciators, compressors, drills, metal on metal clanging, pumps and diesel engines that exceed the Los Angeles County decibel standards. Construction hours are not the same as drilling hours which are 24hours/7daysaweek/365daysayear in multiple locations. The only acceptable mitigation measure is no drilling between the hours of 7:00 p.m. and 7:00 a.m.

WHOW-37 Again the DEIR's rush to judgment allows Matrix to develop a comprehensive Noise Reduction Plan at some time in the distant future. The City of Whittier will be the responsible party for accepting and enforcing the plan. One needs little imagination to see how "the wolf will guard the henhouse". This comment letter specifically requests that the Noise Reduction Plan be part of the DEIR and be made available for all to publicly review and comment on it.

WHOW-38 Lastly, the DEIR uses the least expensive way to mitigate the noise. Instead of requiring the best class of materials as noise barriers (as listed in Table 4.5-2) the mitigation measure allows for a grossly inferior pads. Given the loud noise the proper mitigation measure would be to use 12 inch thick concrete and not light weight pads.

The entire noise section is fatally flawed.

7. Hydrology and Water Resources

The DEIR includes a grossly deficient and inadequate hydrology and water resource section. The section fails to include two basic essentials, a Storm Water Pollution Prevention Plan and a Hydrology Study including drainage plans. This is completely unacceptable and renders the DEIR incomplete.

Again the DEIR allows Matrix to provide these critical studies at some time in the future after the EIR has been approved and the Conditional Use Permit has been granted and operations have commenced. This piecemeal process attempts to circumvent CEQA's disclosure policy that is at the heart of an EIR.

The teaspoons of information that the DEIR does provide, are frighteningly haunting. Page 4.8-11 describes the horrifying scenario that is:

> "Proposed drilling and operations could result in oil spills as a result of equipment failure or operational errors. Spill volumes at the proposed facility could potentially be significant due to the increased handling of crude oil and the potential for blowouts from the wells. Such a spill could substantially degrade groundwater, surface water and downstream facilities. Although spill containment can be implemented around the drilling sites, *the worst case scenario would involve an oil well blow-out and overflow of containment berms.*

WHOW-39

> In the unlikely event that a large spill or blow-out at the proposed drilling site flows directly into nearby hillside drainage courses, it could spread the contamination into the Puente Hills Native Habitat Preserve, downstream storm drain facilities and existing residential communities located to the south and west of the Project Site. *Overall, such a spill could have a significant long-term, widespread impact on water quality."*

Yet, the disclaimer fails to either quantify the damages or map the areas exposed by these damages. Surely the effect would be greater than 95 homes in the visual shield. Keep in mind this only addresses the human error and machine failure. The analysis that contamination would affect only residences to the south and west of the project are insulting. The contamination of the water could continue undetected for years before residents would know they were drinking toxic water.

The city of Whittier is very familiar with groundwater contamination. Only last month the Environmental Protection Agency announced the settlement of the large Superfund contamination near the old Skateland and Presbyterian Hospital that has festered since 1976. The cost of the clean-up of the contamination has been estimated at $69 million. The city of Whittier should mandate that Matrix and its partners post a bond for the potential and highly likely water contamination hazards. The current $5,000,000 liability requirement is the equivalent of taking a squirt gun to a war zone.

The DEIR must insert detailed maps with the proposed drilling sites and the potential plumes of contamination to water and its impact on the surrounding residential community. It also needs to provide worst case scenarios explaining *significant long -term widespread impact* on water quality.

WHOW-40

It also says that Produced water will be required at 7,200 bpd or 288,000 gallons per day for presumably secondary production of 10,000 bpd of oil using 8 injection wells. In 1998, Chevron used

8,000 bpd to float only 1,500 bpd of oil. (ref Table 2-4 History). The "produced water" estimate is appears too low based on Chevron's actual data.

WHOW-41

Where does the "produced water" come from? Does Matrix have permits from the Central Basin for this large quantity of water? What is the ultimate fate of all this water and do they have plans regarding the "Water Independence Now" – WIN Program of the Water Replenishment District which is working hard to control the falling water table in the Central Basin but obviously can't use oil contaminated water.

Most importantly what specific chemicals by name will be used in the "produced water" to enhance oil flow?

8. Pre-commitment Prior to CEQA

WHOW-42

The California Environment Quality Act generally requires agencies to complete environmental review before taking a discretionary action to commit to a definite course of action on a project that may cause physical change in the environment. An environmental impact report cannot be a perfunctory task performed to accommodate previous actions.

The City of Whittier pre-committed to the Matrix Oil drilling project before embarking on the preparation of this result-oriented and disingenuous environmental impact report. This is well evidenced by an overhead slide presented to Whittier Friendly Hills homeowners on April 22, 2009. The slide titled "Estimated Time Line" clearly defines this pre-commitment. (See Exhibit 8.)

As the April 2009 slide indicates the EIR was a mere formality and the plan was green-lighted from the inception.

Summer 2008 – City council adopts Resolution of Intention to lease Property for Production of Oil

Late Summer 2008 – City receives bids on lease (bid for royalty amount)

Fall 2008 - City council awarded lease agreement to highest bidder – Matrix/Clayton Williams

Spring 2009 – Lessee files application for Conditional Use Permit; identifies facilities and locations requested for exploration and production operations

Jan 2010 - City initiates CEQ review –NOP goes out

Fall-Winter 2010 City Council considers Conditional Use Permit for facilities; Lessee obtains other permits as required.

2011 - Lessee starts exploration phase

2011/2012 Lessee begins production wells

The actions that the city council embarked on in their determination to reap the financial windfall of oil royalties not only include signing a long- term lease with Matrix before any environmental review; but also contracted with a lobbyist to negotiate the royalty split with

the County of Los Angeles. This lobbyist who was to earn approximately $200,000, failed to register as a lobbyist with the County of Los Angeles and violated the County ordinance as well as violating agreements with Whittier and the "Project Agreement."

It should come as no surprise to know that the City Council in their zealousness to grab the gold ring adopted a new noise limit standard in January 2010 prior to the drafting of the EIR. Again this demonstrates the definitive course of action the city would go to approve the project. Had the EIR been performed in 2008 or 2009 the EIR outcomes for noise results would be significantly different. The change in the noise ordinance is irrefutable evidence of the city is pre-commitment to the project.

The proper course of action would have been for the City to perform the environmental impact report and contact the county prior to seeking a Resolution of Intention to Lease. The city also entered into an illegal lease with an infinite time period. The Whittier Charter calls for a vote of the entire electorate for a lease that exceeds 25 years.

The City of Whittier committed to a "definite course of action" with the Whittier/Matrix mineral exploitation of open space lands and tacitly "approved" the project prior to drafting the DEIR, as can be seen by the slant and biases of the DEIR. The entire CEQA and EIR process has been abused by this Procrustean bed approach well evidenced in the DEIR. As a result this entire DEIR is a sham!

9. Environmental Justice

A. Section 4.16 of the DEIR pretends to addresses issues of environmental justice. This section is blatantly result oriented in the following respects:

1. State law provides mandatory baseline considerations for evaluating disproportionate project impacts on minority and low-income populations;

2. The DEIR neglects to consider the goals and objectives of Proposition A, which are themselves a measure of environmental justice;

3. The DEIR erroneously omits minority and low-income populations that were intended to benefit from Proposition A;

4. The DEIR cleverly, yet arbitrarily limits the study area to the most economically affluent neighborhoods within the City;

5. At lease 50% of the Study Area is located entirely in the unpopulated habitat preserve.

The Whittier Main Oil Field was purchased with Proposition A funding. Proposition A authorized the formation of an assessment district to raise funds for open space purchases throughout the County of Los Angeles. The Whittier Hills were specifically designated as open space to be purchased from Proposition A assessment proceeds.

WHOW-43

The purchase of the Whittier Hills itself was intended to redress issues of environmental justice. (See, Cal. Pub. Res. Code, section 5622(c), (d).) A primary goal of the legislature in authorizing the capture of tax dollars for open space purchases was to preserve available open space in highly

urbanized areas and specifically, Los Angeles County. According to the authorizing legislation, rapid urban sprawl and population growth has outpaced the state's ability to acquire and maintain parks and open spaces. Legislative findings make it abundantly clear that the acquisition, preservation, and maintenance of open space areas eliminates urban blight, which disproportionately impacts minority and low-income populations. These impacted populations were cut out of the DEIR's consideration.

These findings were made on a countywide basis and were not limited to the geographical boundaries of the City of Whittier, let alone the arbitrarily selected "Study Area" contained in the Environmental Justice analysis section of the DEIR.

Acquisition of the Whittier Hills with Proposition A funds converted those lands to a regional park resource and is, therefore, owned by Whittier in trust for the beneficiaries of the Proposition A tax assessment. The DEIR's environmental justice study erroneously limits consideration of project impacts to the City of Whittier.

B. DEIR 4.16.1 Environmental Setting: Intentional Exclusion of Minority Communities from the Study Area

WHOW-44 As a practical matter, the Whittier Hills service those Los Angeles County communities that are closest in proximity to the City of Whittier and which account for approximately 90,000 annual visitors. These communities include unincorporated areas of East Los Angeles County, Montebello, Pico Rivera, South El Monte, El Monte, La Puente, La Habra, Commerce, Norwalk, Santa Fe Springs, unincorporated South Whittier, Bell and Bell Gardens. Each of these communities is predominated by Mexican-American and other Latino-American residents of moderate to low- and very-low income households. With the exception of South Whittier, none of these communities were considered or otherwise included the within the Study Area. Exclusion of these communities from the Study Area is a glaring omission because all of them lay within the Proposition A zone of benefit region. Removal of 1290 acres of parkland from these communities reverses the stated Proposition A objectives, such that the DEIR may only conclude that there will be a significant environmental injustice by destroying the Whittier Hills.

(i) Inclusion of Unpopulated Open Space in the Study Area

WHOW-45 Figures 4.16-1 [Distribution of Minorities] and 4.16.2 [Distribution of Poverty in Study Area] are equally deceptive in that approximately 50% of the geographical area depicted on those figures include approximately 4000 acres of undeveloped open space area, including the 1290 acres encumbered by the 2008 Whittier/Matrix lease.

(ii) Exclusion of Drilling In Surrounding Communities

WHOW-46 Neglected in the "Environmental Setting" section is the fact that the City of Montebello is currently undergoing efforts to expand oil-drilling activities within its City limits and additional residential development that may virtually eliminate open space in that community. The City of Santa Fe Springs is also impacted by historic oil drilling activities. By failing to consider these activities in the DEIR Whittier's consultant skews the conclusion to a finding that minority and low-income residents will not be disproportionately impacted by the project.

(iii) Exclusion of Proposition A Analysis

WHOW-47 A baseline for the Environmental Setting analysis must include the adoption of Proposition A and its authorizing legislation. Acquisition of the subject area with Proposition A funding was intended to fulfill a specific legislative design and purpose. An EIR may not unwind or otherwise nullify preemptive legislative findings. The DEIR must accept the legislative findings as true and incorporate them into the baseline analysis.

The proposed project, which involves the leasing of 1290 acres of open space for mining, drilling, mineral, oil and gas extraction, requires that approximately 90,000 visitors per year be excluded from land that is designated and set aside as open space, for use by county residents.

C. Section 4.16.4 Project Impacts and Mitigation Measures.

Erroneous assumptions give rise to erroneous conclusions regarding project impacts. An environmental justice impact would be considered significant if the potential future development would disproportionately impact minority or low-income populations compared to the corresponding medians for the county where the Project is located.

The acquisition of the Whittier Hills with Proposition A funding was intended to create a regional community resource for county residents. Accordingly, county and, more significantly, Whittier adjacent cities and unincorporated areas must be added into the Study Area; specifically those communities referenced above. Inclusion would increase the number of minorities and low-income residents that were intended to benefit from the Proposition A assessment and acquisition of the 1290 acres currently leased to Matrix Oil Company. Expansion of the Study Area will result in different outcomes, which should be considered to obtain an accurate snapshot of environmental justice impacts.

WHOW-48 Removal of 1290 acres of land will have a direct foreseeable negative impact on the environment. In so far as environmental remedies have been created legislatively, removal of these remedies cannot be mitigated to a level that is below significant. Project effects will disproportionately affect minority and low income communities when the intended beneficiaries of the Proposition A assessment are added back into the Study Area because they will be prohibited from using the Proposition A resource.

The FEIR must expand the number of communities that directly benefit from the Whittier Hills. At a minimum, the FEIR should contain a survey of users of the 4000-acre preserve. This survey should include all entries to the open space, as once inside the open space area, users access all areas of the park via fire roads and hiking trails.

The FEIR must consider legislative findings, the purpose and intent of funding legislation that authorized Proposition A, Proposition A and the collective purpose if these laws in establishing the baseline environmental area and the Study Area. Unless the foregoing is accomplished, the FEIR will have inadequately analyzed the Environmental justice component.

Conclusion

The approval of this DEIR puts the city of Whittier on a treacherous slippery slope. The legal precedents this project sets will have serious ramifications for decades to come in the way of

unintended consequences. Future developers will look for the same "velvet glove" treatment when processing their conditional use permits. What is an acceptable land use and zone ordinance? How can the city legitimately deny height and noise limitations? Is the new standard being promulgated, as long as you pay the city of Whittier thirty percent of your profits we will rewrite the rules? If another developer comes along with a plan for a non-profit medical marijuana farm on the unused 1290 acres, would it just be a matter of negotiating the city's cut? After all one of the DEIR stated objectives was to "maximize royalty payments to the City of Whittier."

The city of Whittier in its avaricious pursuit of petrol dollars has been reckless in their wanton disregard for existing contracts, rules and laws. Like early wildcatters they have run rough shod over legal obstacles. Specifically:

WHOW-49 1) Ignoring Proposition A and its objectives.

WHOW-50 2) Ignoring the city charter that mandates a vote of the electorate for any lease over 25 years.

WHOW-51 3) Changing the noise requirement in the dead of winter's night to lower the standards to achieve favorable EIR results.

WHOW-52 4) Hiring a "consultant" to lobby the Los Angeles County and failing to properly register and then ignoring applicable rules and regulations for lobbyists.

WHOW-53 5) Breaching the Prop "A" Project Agreement by failing to submit to the County for prior approval all leases and entering into a lease with a for profit entity.

WHOW-54 6) Jeopardizing the tax free municipal bond status of the Prop "A" bonds by contracting with a private for profit corporation.

WHOW-55 7) Failing to follow CEQA by not performing the EIR before entering into a lease.

WHOW-56 8) Processing an incomplete, flawed EIR that does not have a Fire Rescue Plan, Earthquake Geotechnical Plan, Hydrology Study or Storm Water Pollution Plan..

WHOW-57 9) Ignoring the written 2007 Puente Hills Authority Resource Management Plan that does not provide for the use of drilling oil.

WHOW-58 10) Failing to assess and recuse council members for apparent conflicts of interest.

WHOW-59 11) Trampling over private property holders right to the quiet enjoyment of their homes and disregarding the intentional depreciation of their property value.

In addition, in a complete lack of transparency the city failed to televise the public EIR comment meetings, and cancelled normally scheduled city council meetings in November and December. The city also ignored the voices of over 4,000 petitioners Whittier and surrounding communities against the proposed project. Not in the history of Whittier have so many came forward to oppose a project.

It is time to stop this ill-conceived plan that has between 6 and 15 acknowledged unavoidable environmental impacts and countless questionable conclusions affecting remaining conclusions. WHOW demands that Whittier abort the entire EIR process that has divided city residents and fostered distrust in the current council's decision-making ability. As Councilman Greg Norbak presciently was quoted back on December 29, 1996 "Preservation of hillside land had a real heahing effect in our community...It took away the adversity between the groups that wanted to develop the hills and the groups that wanted to save the hills. Finally preserving the land took that knife that had been wedged into our community out of the picture." I and the 4,000 plus supporters of WHOW look forward to a complete and objective response to the comments and questions included in this letter. In sum, WHOW and other informed and concerned citizens look forward to safeguarding our quality of life, our environment, and our safety and sending the oil carpetbaggers back to Santa Barbara and Texas.

Regards,

Daniel F. Duran

Daniel Duran, President of WHOW
8103 Catalina Ave.
Whittier, CA 90602
Tel: 562.693.3259
E-Mail: dduran@whittier.edu

Sound Reduction Technology

Modern facilities all over the United States employ sound wall and sound-paneling to reduce noise that emanates from machinery on-site. The Matrix project will have facilities that have the following:

Sound-walls built to 15 feet high that surround each site;

Sound panels placed on engines and machinery that generate high levels of noise;

Vertical and portable sound walls that can be moved to position around temporary equipment;

Sound-panels attached to some parts of drill and service rigs that will muffle sound from pipe and engines.

There are many technologies available today to combat sound from industrial sites. We will be working with local firms to achieve the goal of zero-impact to the surrounding neighborhoods and Habitat ecology. Please see the link to learn more about technologies we will be using at this project.

Horizontal Well Technology

Many advances have been made in oil field technology in the last 20 years. One of the impressive advances is in drilling technology that allows for the drilling of long-reach wells up to 10 miles away from a central point. Typically distances away from a central point or pad range from one to three miles. This allows many wells to be drilled from one point and thus minimize impact to the surrounding areas.

* Our project proposes to drill up to 60 wells to fully develop the City Lease. This will be done with up to 3 sites. Due to modern engineering to include better drill equipment the time it takes to drill wells has been dramatically reduced from historic standards of wells drilled in the 1950s to 1970s. All of the proposed Matrix wells will be high-angle and long-reach wells. Please see the attached link to learn more about high-angle drill technology.

Environment, Health and Safety

There are no shortcuts when it comes to safety. Matrix is dedicated to maintaining the highest standards of safety and environmental safeguards in its operations.

Matrix works closely and collaboratively with all City, County and State agencies or departments to ensure compliance with regulations and to optimize operations that will minimize impact to properties that surround our leases.

We have developed close working relationships with all relevant local and State agencies:

LA County Fire Department to clear brush in the Sycamore Canyon of the Puente Hills Habitat

City of Whittier Public Works Department for annual / semi-annual production site inspections to ensure compliance with all permitted activity

The Gas Company on data relative to gas pipeline product quality to verify compliance with consumer standards

South Coast Air Quality Management District on emission quality controls

LA County Sanitation District for water disposal standards

State of California Division of Oil, Gas and Geothermal Resources on inspections to maintain required standards of site quality and operations impact.

Matrix is dedicated to improving its sites and the environment around its sites. Matrix invested more than $4 million to rectify the impacts caused by an independent contractor accident that resulted in a one-day fire inside the well cellar at the Honolulu Terrace site.

We collaborated with our neighbors and City of Whittier officials to implement advanced safety standards of our operation, rebuilt all key systems, and re-landscaped the area with approved native plants. Procedures have been implemented company wide to prevent another vendor accident and projects to improve the sites as implemented in 2005 continue to this day.

Since 2006 Matrix has been working with the California Department of Fish and Game Department, the US Army Corps of Engineers, the LA Regional Water Quality Control Board and the Puente Hills Landfill Native Habitat Preservation Authority to design and permit a project along the Sycamore Canyon creek within the Habitat area. The goal is to control vegetation along the creek, remove non-native plants, remove debris in the creek to improve creek flow, replace an old creek crossing that has become clogged and is severely impacting stream water quality, and halt creek erosion.

EXHIBIT #1

Original Wells: More than 500, are Shown in Green

EXHIBIT #2

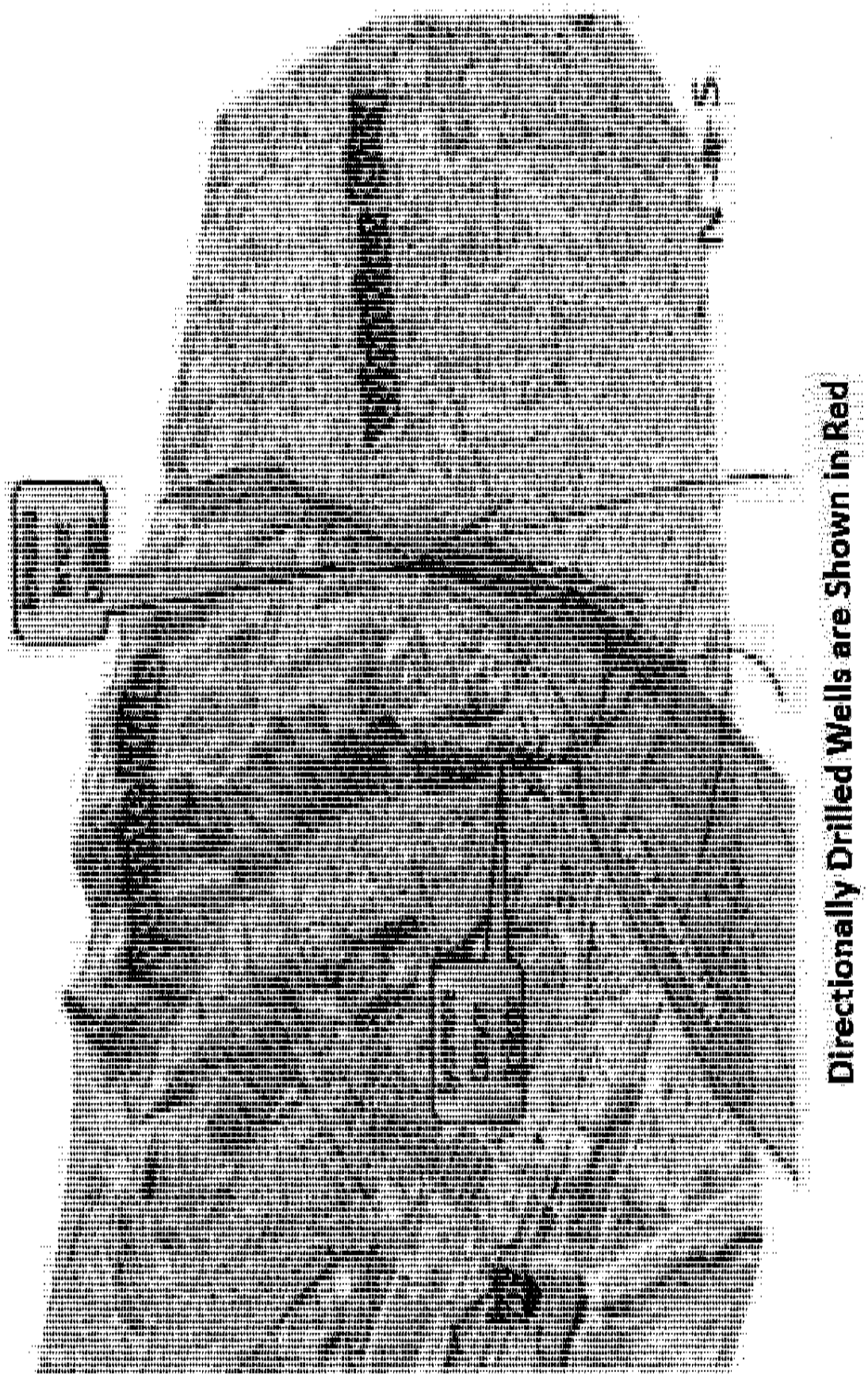
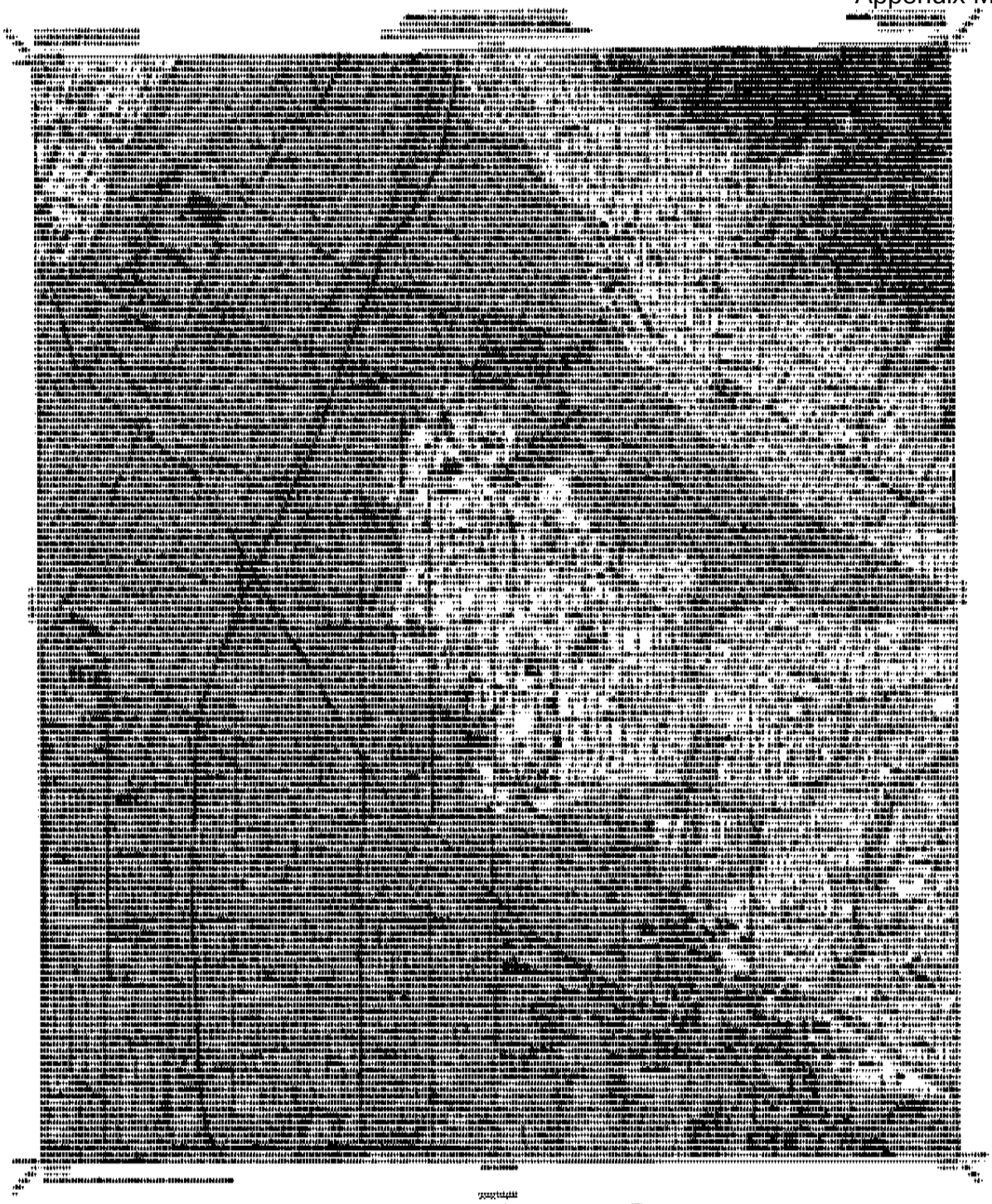


EXHIBIT #3

Appendix M



PURPOSE OF MAP

IMPORTANT – PLEASE NOTE

MAP EXPLANATION

Zones of Required Investigation

STATE OF CALIFORNIA

SEISMIC HAZARD ZONES

WHITTIER QUADRANGLE

OFFICIAL MAP

Released: March 25, 1999

STATE GEOLOGIST

Whittier Project EIR

EXHIBIT #4

Map | US California **Whittier** Views: 83

Shop current mortgage rates on Zillow Mortgage Marketplace.

15017 Lodosa Dr

Zestimate®: **$1,070,500**
Value Range: $899K – $1.19M

Monthly payment:
See current rates on Zillo **$5,776**
Check your 2010 Credit Score

Bedrooms:	3
Bathrooms:	6
Sqft:	4,426
Lot size:	25,000 sq ft / 0.57 acres
Property type:	Single Family
Year built:	1964
Parking type:	--
Cooling system:	Central
Heating system:	
Fireplace:	--
Last sold:	March 28 1997

More facts

No photos available for this property

Description

This 4426 square foot single family home has 3 bedrooms and 6.0 bathrooms. It is located at 15017 Lodosa Dr Whittier, California. The nearest schools are Ocean View Elementary School, East Whittier Middle School and La Serna High School.

Post for sale/rent | Save | Share | Email me | Edit | Print

Charts and Data

	Value	Range	30-day change	$/sqft	Last updated
Zestimate®	**$1,070,500**	$899K – $1.19M	-$41,000	$241	11/27/2010
My estimate	Create estimate				
Owner Comment	Post a comment				

Show
- **Zestimate ($)**
- **Zestimate (% change)**
- **Listing price**
- **Tax assessment**
- **Tax paid**
- **Page views**

Time period
- **1 month**
- **1 year**
- **5 years**
- **10 years**

Compare 90605 to nearby areas

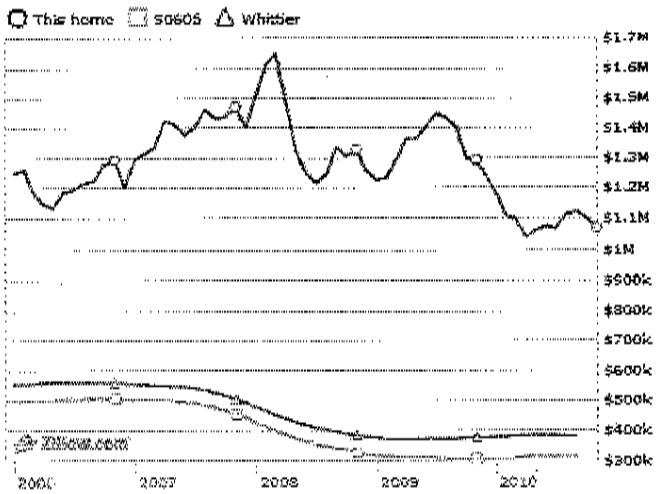


EXHIBIT #5

Appendix M

Map : US California **Whittier** Views: 32

See how much you could save by shopping on Zillow Mortgage Marketplace.

15503 Lodosa Dr

Zestimate®: **$756,000**
Value Range: $650K – $839K

Monthly payment:
See current rates on Zillow **$4,079**
Check your 2010 Credit Score

Bedrooms:	4
Bathrooms:	3
Sqft:	3,159
Lot size:	12,396 sq ft / 0.28 acres
Property type:	Single Family
Year built:	1969
Parking type:	--
Cooling system:	Central
Heating system:	
Fireplace:	--

More facts

No photos available for this property

Description
This 3159 square foot single family home has 4 bedrooms and 3.0 bathrooms. It is located at 15503 Lodosa Dr Whittier, California. The nearest schools are Murphy Ranch Elementary School, East Whittier Middle School and La Serna High School.

Post for sale/rent Save Share E-mail me Edit Print

Charts and Data

	Value	Range	30-day change	$/sqft	Last updated
Zestimate®	**$756,000**	$650K – $839K	-$29,500	$239	11/27/2010
My estimate	Create estimate				
Owner Comment	Post a comment				

Show
- **Zestimate ($)**
- **Zestimate (% change)**
- **Listing price**
- **Tax assessment**
- **Tax paid**
- **Page views**

Time period
- **1 month**
- **1 year**
- **5 years**
- **10 years**

Compare 90605 to nearby areas

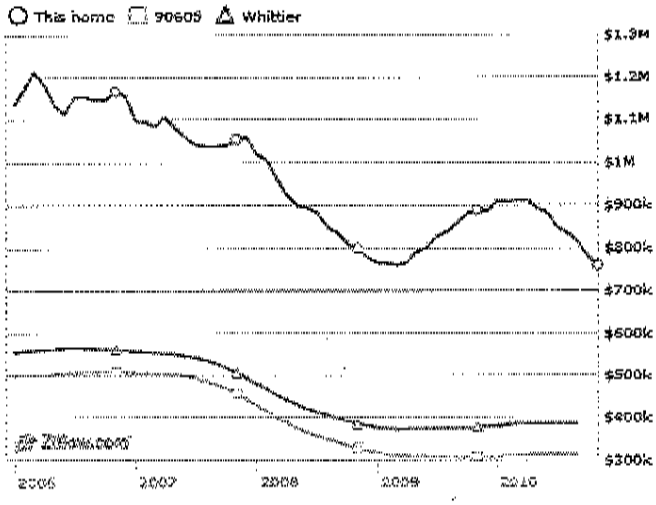


EXHIBIT #6

Map | US California **Whittier** Views: 66

Don't get your mortgage without checking Zillow first...it could cost you not to

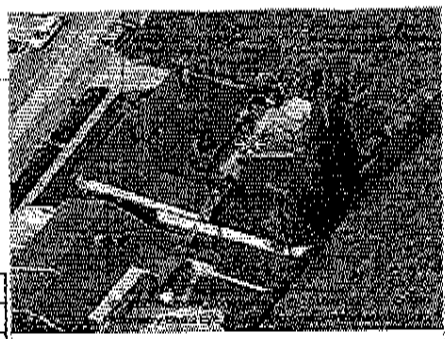
7904 Ocean View Ave

Zestimate®: **$621,500**
Value Range: $516K - $684K

Monthly payment:
See current rates on Zillo **$2,496**
Check your 2010 Credit Score

Bedrooms:	4
Bathrooms:	3
Sqft:	2,014
Lot size:	10,400 sq ft / 0.24 acres
Property type:	Single Family
Year built:	1960
Parking type:	--
Cooling system:	--
Heating system:	
Fireplace:	--
Last sold:	May 09 1980

More facts



No photos available for this property

Description

This 2014 square foot single family home has 4 bedrooms and 3.0 bathrooms. It is located at 7904 Ocean View Ave Whittier, California. The nearest schools are Ocean View Elementary School, East Whittier Middle School and La Serna High School.

Post for sale/rent Save Share E-mail me Edit Print

Charts and Data

	Value	Range	30-day change	$/sqft	Last updated
Zestimate®	**$621,500**	$516K – $684K	-$6,000	$308	11/27/2010
My estimate	Create estimate				
Owner Comment	Post a comment				

Show
- **Zestimate ($)**
- **Zestimate (% change)**
- **Listing price**
- **Tax assessment**
- **Tax paid**
- **Page views**

Time period
- **1 month**
- **1 year**
- **5 years**
- **10 years**

Compare 90602 to nearby areas

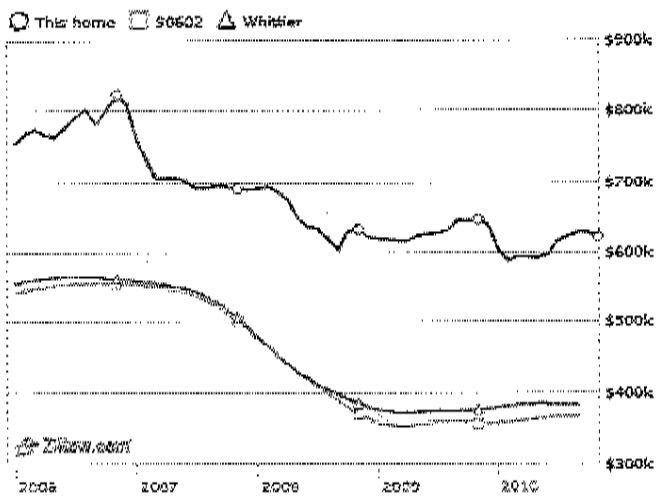


EXHIBIT # 7

Appendix M

Mineral Extraction in the Whittier Hills

Friendly Hills Property Owners Association - April 22, 2009

Ex. Whittier Hills Project EIR

Estimated Time Line

- **Summer 2008** – City Council adopts Resolution of Intention to Lease Property for Production of Oil
- **Late Summer 2008** – City receives bids on lease (bid for royalty amount)
- **Fall 2008** – City Council awarded lease agreement to highest bidder – Matrix/Clayton Williams
- **Spring 2009** – Lessee files application for Conditional Use Permit; identifies facilities and locations requested for exploration and production operations

- **Jan 2010** – City initiates CEQA review - NOP goes out
- **Fall-Winter 2010** – City Council considers Conditional Use Permit for facilities; Lessee obtains other permits as required
- **2011** – Lessee starts exploration phase
- **2011/12** – Lessee begins production wells

EXHIBIT # 8B

Whittier Hills Oil Watch

WHOW1-1	The proposed Project is described in Section 2.0, Project Description, of the Draft EIR. Other descriptions within other documents are not necessarily applicable to this environmental review. The City of Whittier owns the mineral rights that exist under the 1,290 acres that they own within the Habitat Preserve. The Project as proposed would access oil and gas reservoir from drilling areas covering approximately 7 acres of surface land while accessing a large portion of the reserves underground. While the EIR preparers agree that the California Environmental Quality Act (CEQA) analysis should occur as early as possible on a Project, this environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP was brought forth for the City's consideration. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, *"Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment."* At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time.
WHOW1-2	By locating the drilling facilities farther away from the fields, the technology to reach all areas of the field might be limited. According to the Bureau of Ocean Energy Management, Regulation and Enforcement, the farthest horizontal reach well drilled in the U.S is 4.03 miles horizontal displacement on lease 193 from Platform Heritage in the California Outer Continental Shelf. This well was drilled into the Sacate field at a depth of approximately 6,700 feet with a horizontal to vertical ratio of approximately 3.2. ExxonMobil has drilled at least four wells into the Sacate field with reaches of 3 miles. Worldwide experience with extended reach technology has demonstrated reaches of more than 6 miles into fields offshore of England by British Petroleum (Wytch Farm well M-11), with horizontal to vertical ratios on the order of 6 and more than 7 miles (7.13 miles horizontal reach with an horizontal to vertical ratio of up to 4.8) in Russia at the Sakhalin-1 Project in January of 2011. The Applicant has indicated that a reach of 7,000 to 8,000 feet could be achieved. Since the oil is spread out between a number of different geological layers at different depths, it is difficult to determine the amount of crude oil that would be unavailable from a specific drilling location farther from the proposed Project drilling area. Although the Applicant indicates that they could achieve a range of up to 8,000 feet horizontal distance, for shallower areas the distance would be less. For example, the zones that are 1,000 feet deep could be reached from only as far away as 4,000 feet (using the 4.0 throw ratio). These estimates are in line with other drilling projects,

	such as Paredon in Carpinteria and Baldwin Hills. This limits the distances from the reservoir that drilling could be performed. The deeper areas of the reservoir could be reached from farther away (although 10 miles is an extreme), but the shallower areas could not be reached as it is more difficult to achieve a high throw ratio with shallow fields. It is estimated that a reduction in production levels of about 50% would be realized with drilling at the Landfill
WHOW1-3	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
WHOW1-4	There is no area within drilling range of the reservoirs that is more than 6,000 feet from any homes. The reservoir is located within Los Angeles, a densely populated area. Historical operations and issues that have occurred at numerous other urban oil fields indicates that separation distances to drilling of more than 1,000 feet substantially reduces the issues related to noise, air pollution, odors and safety and risk. The alternatives move the operations more than 1,000 feet away from the residences and the school.
WHOW1-5	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
WHOW1-6	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
WHOW1-7	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
WHOW1-8	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
WHOW1-9	By locating the drilling facilities farther away from the fields, the technology to reach all areas of the field might be limited. According to the Bureau of Ocean Energy Management, Regulation and Enforcement, the farthest horizontal reach well drilled in the U.S is 4.03 miles horizontal displacement on lease 193 from Platform Heritage in the California Outer Continental Shelf. This well was drilled into the Sacate field at a depth of approximately 6,700 feet with a horizontal to vertical ratio of approximately 3.2. ExxonMobil has drilled at least four wells into the Sacate field with reaches of 3 miles. Worldwide experience with extended reach technology has demonstrated reaches of more than 6 miles into fields offshore of England by British Petroleum (Wytch Farm well M-11), with horizontal to vertical ratios on the order of 6 and more than 7 miles (7.13 miles horizontal reach with an horizontal to vertical ratio of up to 4.8) in Russia at the Sakhalin-1 Project in January of 2011. The Applicant has indicated that a reach of 7,000 to 8,000 feet could be achieved. Since the oil is spread out between a number of different geological layers at different depths, it is difficult to determine the amount of crude oil that would be unavailable from a specific drilling location farther from the proposed Project drilling area. Although the Applicant indicates that they could achieve a range of up to 8,000 feet horizontal distance, for shallower areas the distance would be less. For example, the zones that are 1,000 feet deep could be reached from only as far away as 4,000 feet (using the 4.0 throw ratio). These estimates are in line with other drilling projects, such as Paredon in Carpinteria and Baldwin Hills. This limits the distances from the reservoir that drilling could be performed.

	The deeper areas of the reservoir could be reached from farther away (although 10 miles is an extreme), but the shallower areas could not be reached as it is more difficult to achieve a high throw ratio with shallow fields. It is estimated that a reduction in production levels of about 50% would be realized with drilling at the Landfill.
WHOW1-10	The comment is contradictory, it states that the EIR preparers relied exclusively on the Applicant and then it states that we failed to look at the Applicant's web site. The EIR preparers conducted their own independent analysis of impacts in all the issue areas discussed in the Draft EIR. The EIR preparers used expertise acquired over 80 years of cumulative experience in evaluation of environmental impacts associated with oil and gas projects. We also consulted with various experts on the field as appropriate.
WHOW1-11	Kenai Drilling was contacted for information about their Kenai drilling rigs, such as height, horsepower, engine type, and noise levels.
WHOW1-12	Scales have been added to figures throughout the Final EIR where appropriate.
WHOW1-13	The Savage Canyon Landfill alternative was extensively looked at and discussed with the City of Whittier. The EIR preparers relied on the expertise of the City Public Works Department and their experience managing the Landfill as to the ability to conduct oil and gas drilling and processing exclusively from this location. This was found to be infeasible from the permitting standpoint and the set of stringent regulations that govern the operation of a landfill in California and the incompatibility with the landfill operations. In addition, the distance from the Landfill to the oil and gas reserves and depth of the reservoirs dictated that the alternative would not be viable to achieve the objectives of the Project. Additionally, use of the Landfill Road was also found to have some objections, but the EIR preparers felt that it had sufficient merit to be carried forward as an alternative access as reflected in the Draft EIR. Finally, the commenter discusses the Savage Canyon Landfill Alternative in this comment and requests that the EIR fully analyze Sycamore Canyon as a viable alternative. However, the Sycamore Canyon is too far away to be able to reach the oil and gas reserves that are the target of this Project. Note that the ability to drill is a function of both horizontal distance and depth of the reserves. Many of the producing reservoirs are quite shallow, which would limit the distance to a drilling rig.
WHOW1-14	Please see the response to comment WHOW1-9, which discusses the inability to reach the oil reserves from this location. The Upper Canada Canyon site was eliminated primarily because it would place all operations deep within the existing core habitat of the Preserve. The Draft EIR states that "this alternative would encroach farther into the core habitat of the Preserve, a potential increase in biological impacts." Fire protection impacts are related primarily to the location of facilities along steeply sloped areas. The County of Los Angeles Fire Department fuel modification guidelines address issues related to steeply sloped areas and that the amount of fuel modification would increase substantially for this location. This would further increase biological impacts and potentially increase fire hazards. Geologically, the steeply sloped areas within Canada Canyon also give rise to slope instability associated with seismic activity. These slope issues do not apply as much to the other alternative locations, although some slope issues to apply to all of the locations as it is a hilly area. The location in the middle of the core area and the facility location immediately adjacent to

	steep slopes caused this alternative to be eliminated from further consideration. Please see response to comment WHOW1-9 for a discussion of extended reach drilling. With regards to compatibility with the Preserve's Resource Management Plan, the point is made in the Draft EIR that this Alternative would move the Project deeper into the Preserve and deeper into the designated Core Habitat. This area is also in closer proximity to the Whittier fault and the topography is significantly steeper than in other areas of the site and would require significant additional engineering and result in substantial grading impacts and the ensuing biological impacts.
WHOW1-15	As mentioned in the response to comment WHOW1-2, drilling distances are a function of the location of oil and gas reservoirs, geology and depth. The extended reaches required from Sycamore Canyon and Honolulu Terrace would exceed feasible limits and not be able to accomplish the objectives of the Project. These alternatives were not considered in Draft EIR because the distances were such that the Project as presented would not be achievable.
WHOW1-16	The first part of the comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response. Table 4.4-1 lists the ten closest faults to the Project Site and data for these faults. Section 4.4.1.4, Geologic Hazards, discusses the San Andreas and San Jacinto Faults, their proximity to the Project Site, and the hazards associated with seismic activity and possible effects. The discussion includes the finding that Project improvements could experience significant structural damage. The potential for an earthquake is highly debated and still widely unknown. Many researchers have published opinions on the probability of a strong to severe event in the next 30 to 50 years. The field of seismic event prediction is still largely unproven and cannot be relied upon. The finding that a strong to significant event will occur in the next 50 years is reasonable based on current available data and knowledge. New research that could improve this analysis is still being vetted and is not readily available. Nonetheless, whether a seismic event occurs in 5 or 50 years, the Project will be designed and constructed based on current prevailing codes and regulations. The risk analysis includes the frequency of earthquakes that could generate acceleration levels above 0.5g and 1.0g in the frequency analysis. In summary, this analysis contains substantial evidence of the various conditions identified at the site, outlines the remaining analysis, and recommends mitigation measures based on these findings (14 CCR 15143).
WHOW1-17	Pipelines and wells are designed to be flexible according to current technology and standards. Pipelines are also placed in sand bedding for cushion and flexibility to withstand groundshaking. New pipelines must be installed according to the custom and practice of the industry to minimize potential risks. The leading cause of pipe rupture is third-party damage from excavating or drilling without adequate knowledge of the pipeline's presence, due to a failure to notify the Underground Service Alert of Southern California. The process and permits guiding all pipeline construction require documentation that minimizes potential adverse impacts. If the pipeline ruptures and releases oil, the pipe detector system would close the valves to minimize the spill volume and activate alarms. A cleanup team would then

	be deployed to clean up the spill. Following any earthquake event with ground accelerations exceeding 15 percent of gravity, Mitigation Measure GR-1g requires inspection procedures for the facility and equipment.
WHOW1-18	The liquefaction conclusions are neither deferred nor piece meal. The analysis reviewed site conditions and potential hazards and then concluded that there may be a potential for liquefaction. Further review and analysis found that in the event of such a hazard, several remedial measures are available to mitigate the hazard. Whether analysis is completed now or when detailed plans are available, the finding will remain that the hazard is significant but can be mitigated. Therefore, a finding for future site-specific studies based on the proposed site layout is reasonable.
WHOW1-19	The term "splay" is a technical term for a secondary or tertiary portion of the fault, not the main trace. There are significant differences between the recent Deepwater Horizon spill in the Gulf of Mexico and land-based oil wells. A seismic event shearing pipelines or wells is very rare. In addition, the primary challenge with the Deepwater Horizon spill was due to the sheared pipe in considerable water depth and the inability of conventional methods to reach the sheared pipe. The proposed Project includes a series of built-in components to prevent, detect, and shutdown in the event of a failure in the pipelines or wells. Even if the built-in system redundancy breaks down, several methods are available to reach any affected areas.
WHOW1-20	Based on current information, the Applicant has not provided the necessary data and information to assess the proximity of drilling to any specific homeowners. Nonetheless, the conclusions would be unchanged regardless of whether drilling occurs within and under the limits of the existing field or extends under adjacent homes. The parcels depicted in Section 2.0, Project Description, where the Applicant would have mineral rights, are all within the Preserve area and not underneath residences.
WHOW1-21	CAL FIRE and the Los Angeles County Fire Department would not require any fuel modification around the facility equipment because current laws and regulations only require fuel modification around buildings. Current fuel modification around buildings requires 30 feet fuel clearance and 100 feet fuel "modification", meaning management of vegetative types. The 30 feet of clearance around all equipment was utilized as the area to remove all vegetation to prevent the initiation of a wildfire by equipment sparks and activities.
WHOW1-22	Fuel modifications around residences and schools are managed by the LA County Fire Department and the Habitat Authority. Concerns related to a large 400 foot fuel modification relate to loss of wildlife habitat. Mitigation measures in Section 4.12, Fire Protection and Emergency Services, would require clearances (no vegetation) and equipment and training.
WHOW1-23	Appendix A of the Draft EIR includes plot plans required by the fire department that show the location of fire hydrants. Hydrants would be required at pads as well as along the access roads. Existing residences and schools are already required to have fire hydrant access within a specified distance.
WHOW1-24	An emergency response plan would be developed as part of the permitting phase with the City and the Fire Department. It is not required for the assessment of California Environmental Quality Act impacts.
WHOW1-25	The Applicant has not indicated any plans to remove eucalyptus trees. However, as discussed in Section 4.6, Aesthetic and Visual Resources, the removal of the eucalyptus trees would present potential significant impacts

	related to the loss of landscaping around the facilities. Mitigation measure AE-1a would require landscaping which could mitigate the impact of removing the eucalyptus trees, although the removal and planting would need to be phased in a coordinated manner.
WHOW1-26	Any wildfire in the Puente Hills would utilize the existing resources of the County of Los Angeles Fire Department and California Department of Forestry and Fire Prevention (CAL FIRE). These resources are extensive and detailed in the CAL FIRE Los Angeles Unit Plan for the Los Angeles area as well as the California Plan. The proposed Project would not substantially change these plans nor the resources required to fight wildland fires under CAL FIRE jurisdiction.
WHOW1-27	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
WHOW1-28	We agree that assessed value will be different than market value. We discuss this issue as it relates to our analysis on Page H-56: AECOM relied on GIS to gather assessed valuation data based on those properties affected by the noise and visual impacts of the Project. It is important to note that Proposition 13 limits property taxes to a total maximum rate of one percent based upon the assessed value of the property being taxed. Each year, the assessed value of property may be increased by an inflation factor (limited to a maximum increase of two percent). With few exceptions, property is only re-assessed at the time that it is sold to a new owner. At that point, the new assessed value is reassessed at the purchase price of the property sold. The assessed valuation data provided below represents the only data available with respect to the actual market value of taxable property and is subject to the limitations described above. In other words, the actual market value will likely be higher than the values provided herein. However, even a potential decline in market value caused by the Project could yield a net increase in the assessed value of the property after it is sold and reassessed. AECOM interviewed a number of local realtors to get their impression of potential value impacts and the marketability of residential homes in Whittier based on the proposed Project. These realtors were chosen based on their knowledge of the local market and were included in the Study to get a qualitative perspective for the analysis. It would be beyond the scope of our work to conduct site specific appraisals. We were retained to provide an overview of potential impacts on a macro level. We are unaware of any comments made by the referenced professionals regarding our analysis during the public comment period. If the City would like AECOM to interview the named professionals, we can incorporate their thoughts into the report.
WHOW1-29	We would agree that if the proposed Project was deemed to have a significant risk it would be a deterrent to the marketability of homes within proximity to operations. However, there are numerous examples of comparable operations throughout Southern California that do not support this general conclusion (including those studied in the report; see H-46 through H-52). AECOM's "General & Limiting Conditions," as presented on Page H-5, is included in all of our studies. None of the language is unique to this report and such language is common in the consulting industry.
WHOW1-30	AECOM researched a number of studies that investigated residential value

	depression based on external nuisances. While none of the studies are perfectly comparable, we feel that we explored a sufficient range of issues that could inform the impacts of the proposed Project. In regards to the referenced Boxal study, we stated on Page H-39: The results of this analysis strongly suggest that the presence of oil and gas facilities can have significant negative impacts on the values of neighboring rural residential properties. The presence of wells, especially sour gas wells, was found to depress property values but the number of pipelines carrying sour gas variable did not have a significant coefficient. At the mean level of industry facilities within 4 kilometers, property values are estimated to be reduced between four and eight percent. It should be noted that that the applicability of this study to the Project and City is limited due to its focus on rural residential property values and difference in terms of overall operations particularly in regard to sour gas, which has significant safety implications that would not be applicable to this Project. To address the issue of the distance of analysis, as noted on page H-46, we utilized the 1,000 feet to evaluate sales comps for residential transactions (based on complaint data from the Applicant Oil operations at the Honolulu Terrace facility and the academic research). Our actual analysis included homes within the noise and visual shed that spanned more than 1,000 feet.
WHOW1-31	We did not find any evidence that impacted home values would decline by 10 to 30 percent. The potential benefit of the existing open space, as it relates to the City, was not considered in this analysis.
WHOW1-32	Honolulu Terrace was chosen because the Applicant provided AECOM with detailed information on residential complaints issued against the facility. We used this information to get a better understanding of potential impacts on residents in terms of noise, visual, odor, etc.
WHOW1-33	AECOM agrees that this report did not consider the impacts of potential litigation. There are limitations to the analysis as noted in the report. The City and its residents may want to consider this and other issues when considering approval of the Project.
WHOW1-34	AECOM did not consider a revenue sharing agreement between the City and the County as noted by the respondent. AECOM conducted its analysis based on the information provided in the Oil, Gas and Mineral Lease. This comment should be considered, as relevant, when considering approval of the Project.
WHOW1-35	The strict, quantified noise standards in the previous municipal code inhibited the Police Department's response to complaints when noise levels were actually below the quantified standards but were disturbing neighbors. The previous code required the Police Department use noise monitoring equipment respond to noise complaints. Citizen testimony about unregulated noise disturbances led the City to change the noise elements in the Municipal Code. This change in the Municipal Code was unrelated to the Applicant's proposed Project. The Draft EIR attempts to address disturbance by applying a criteria based on changes in noise levels (3 dBA at residences) as opposed to just the General Plan guidelines. This is discussed in the Draft EIR Section 4.5.2.5.
WHOW1-36	Noise would be generated both during construction and during drilling/operations. These are addressed separately in the Draft EIR as impact N.1 (for construction), and N.2 (for drilling), and N.4 (operations). Extensive mitigation measures are applied under N.2 and N.4 to reduce noise levels. These mitigation measures have be demonstrated to be effective at numerous

	urban oil fields, including Beverly Hills and Baldwin Hills.
WHOW1-37	The noise reduction plan specifies a large number of specific measures that the facilities would be required to implement in order to achieve noise levels below the thresholds. These measures would be combined with monitoring to ensure that the noise levels remain below the 3 dBA increase thresholds.
WHOW1-38	Permanent walls and concrete systems and buildings would be used for the permanent operational equipment (associated with impact N.4). Drilling requires a moveable system as the drilling rig must be moved to drilling down each well. This necessitates using pads and systems that can be moved.
WHOW1-39	Mitigation measure WR-1a requires a subsequent hydrology report after the Applicant prepares detailed plans. Since the proposed development will include grading roads and pads, the hydrology report will identify site-specific and drainage conditions and will provide develop the design within the confines of the mitigation measures in the Final EIR. No identified unique conditions would necessitate a hydrology report and the conclusions in the Final EIR will remain valid even after the analysis, since the methodology involves conventional and widely accepted techniques for this type of engineering and design. Since the proposed development will include grading roads and pads, the Storm Water Pollution Prevention Plan report will identify site-specific conditions and required mitigation measures to reduce or eliminate potential non-point source pollution. No identified unique conditions would necessitate a Storm Water Pollution Prevention Plan report at this time, since the methodology involves conventional and widely accepted techniques for this type of engineering and design. The Final EIR assesses potential hazards and impacts to the site and surrounding areas, including the impacts on groundwater, spills, and spill containment. The mitigation measures reduce or eliminate potential adverse effects groundwater and water quality.
WHOW1-40	The Applicant's produced water estimates are based on the depth, location, and method to be used. Drilling will extend well below groundwater and will remove reservoir water. The water will then be re-injected into its original reservoir. The reservoir and the groundwater layers are distinct, and Project operations will not impact available groundwater volume.
WHOW1-41	During drilling operations, produced water is pulled to the surface with the oil from the oil sands layer and then separated. The separated water is then re-injected back into the oil sands layer. This produced water is not removed from nor will it be re-injected into the groundwater aquifer, which is much shallower than the oil sands layer. To prevent inadvertent permeation into the much shallower groundwater aquifer, the drill hole will be surrounded with cemented steel casing. Table 2-10 in Section 2.0, Project Description, lists the specific drilling materials used during drilling operations, including wyoming bentonite, sodium poyacrylate, anionic acrylamide, xantum gum, sodium polyarcrylate, fatty acid, sodium bicarbonate, citric acid, and walnut hulls. These materials will be stored in accordance with the best management practice standards outlined in the Storm Water Pollution Prevention Plan.

WHOW1-42	The California Environmental Quality Act (CEQA) defines a project as the whole of an action, which has a potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA analysis of a project should occur as early as possible, this EIR serves as the environmental review for the entire action that includes the review necessary for consideration of the issuance of a Conditional Use Permit to proceed with the proposed Project. While the lease agreement was signed in October of 2008, the lease stipulated that the lease agreement and a subsequent project could not occur until environmental review was conducted and a Conditional Use Permit application was brought forth for the City's consideration. The Staff Report considering the lease specifically stated that signing the lease agreement did not guarantee that the successful bidder would be able to obtain a Conditional Use Permit after completing the environmental review. Also, when the lease was signed, there were no Project-specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, "Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." At the time of the lease approval, no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time. The strict, quantified noise standards in the previous municipal code inhibited the Police Department's response to complaints when noise levels were actually below the quantified standards but were disturbing neighbors. The previous code required the Police Department use noise monitoring equipment to respond to noise complaints. Citizen testimony about unregulated noise disturbances led the City to change the noise elements in the Municipal Code. This change in the Municipal Code was unrelated to the Applicant's proposed Project. The City of Whittier Municipal Code was used as the guideline for determining noise significance, as detailed in Section 4.5, Noise and Vibration. These codes were recently changed from a system similar to the Los Angeles County Code methods. As the CNEL value is used in the General Plan of the City of Whittier in which the Project is proposed, CNEL was used for the significance criteria. An additional measure was included to address the peak hour noise level, which was defined as noise that would produce a peak hour noise level that is greater than 3 dB A above the minimum baseline hour. This measure would encompass shorter duration noise sources, although it is not as specific as the County Code. The County of Los Angeles was the lead agency for the Baldwin Hills Community Standards District EIR, which uses the average hour approach with an increment above baseline.
WHOW1-43	Except for the proposed crude pipeline extension, the proposed Project is within the City of Whittier. The City of Whittier is approximately 14 square miles. Therefore, it is legitimate to establish the environmental justice analysis study area as the boundaries of the City of Whittier.
WHOW1-44	Except for the proposed crude pipeline extension, the proposed Project is within the City of Whittier. The City of Whittier is approximately 14 square miles. Therefore, it is legitimate to establish the environmental justice analysis study area as the boundaries of the City of Whittier.

WHOW1-45	Figures 4.16-1 and 4.16-2 plainly depict the study area, as well as the proposed Project Site within the study area. No information was withheld regarding the size or location of the study area, proposed Project Site, or communities of comparison, which are all clearly shown in figures throughout the Draft EIR.
WHOW1-46	Except for the proposed crude pipeline extension, the proposed Project is within the City of Whittier. The City of Whittier is approximately 14 square miles. Therefore, it is legitimate to establish the study area related to the environmental justice analysis as the boundaries of the City of Whittier. Further, the cumulative impact study area for the proposed Project, as identified in Section 3.0, Cumulative Projects Description, includes the Project Site's immediate vicinity including the City of La Habra Heights, the City of La Habra, and the City of La Mirada, as well as the proposed crude and gas pipelines in the City of Whittier and the unincorporated Los Angeles County communities of South Whittier, Hacienda Heights and Rowland Heights. The City of Montebello is approximately 9 miles from the Preserve and the City of Santa Fe Springs is approximately 7 miles from the Preserve.
WHOW1-47	In order to use the proposed approximately 7 acres of the surface within the oilfield area for drilling and pumping, the City will be required to either reimburse the Los Angeles County Proposition A District for the 7 acres or provide a comparable area of land that can be used for open space. City staff is in contact with the Los Angeles County Proposition A District to determine the appropriate approach to comply with this requirement. Negotiations regarding refunding Proposition A between the City of Whittier and Los Angeles County are separate and distinct from the EIR. The proposed lease includes a provision that the City will not issue a conditional use permit until a release from protected area status is obtained from the Proposition A District.
WHOW1-48	Except for the proposed crude pipeline extension, the proposed Project is within the City of Whittier. The City of Whittier is approximately 14 square miles. Therefore, it is legitimate to establish the environmental justice analysis study area as the boundaries of the City of Whittier. Regarding a suggested user survey, Section 4.14, Recreation, of the Draft EIR analyzed the 2006 University of Southern California User Survey, which included head counts and individual surveys conducted at five Preserve entrances.
WHOW1-49	This comment addresses Proposition A and its objectives and does not provide a comment on the Draft EIR. Therefore, no response is required and none is provided.
WHOW1-50	Length of the lease agreement and requirement of a vote of the electorate needs to be addressed by the City's Attorney and is not a subject of the EIR.
WHOW1-51	The strict, quantified noise standards in the previous municipal code inhibited the Police Department's response to complaints when noise levels were actually below the quantified standards but were disturbing neighbors. The previous code required the Police Department use noise monitoring equipment to respond to noise complaints. Citizen testimony about unregulated noise disturbances led the City to change the noise elements in the Municipal Code. This change in the Municipal Code was unrelated to the Applicant's proposed Project.
WHOW1-52	The comment about a City hired lobbyist is not in reference to the Draft EIR and as such no response is required.
WHOW1-53	This comment addresses Proposition A and does not provide a comment on the Draft EIR. As such, no response is required and none is provided.

WHOW1-54	This comment addresses Proposition A and does not provide a comment on the Draft EIR. As such, no response is required and none is provided.
WHOW1-55	The definition of a Project under CEQA means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. While the EIR preparers agree that CEQA should occur as early as possible on a Project, this environmental document serves as the environmental review for the whole of the action that includes the review needed for consideration of the issuance of a Conditional Use Permit to proceed with the Project. While the lease agreement was signed in October of 2008, that lease agreement and a subsequent Project could not occur, as stipulated in the lease, until environmental review was conducted and a CUP was brought forth for the City's consideration. The Staff Report for consideration of the lease specifically stated that signing of the lease agreement did not guarantee that the successful bidder would be able to obtain a CUP once the environmental review is completed. Also, at the time of the lease there were no Project specific details that would have allowed any type of meaningful CEQA review. As stated in CEQA Section 15004, *"Choosing the precise time for CEQA compliance involves a balancing of competing factors. EIRs and negative declarations should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment."* At the time of the lease approval no information was available about what the Project would be and therefore no meaningful environmental review could occur at that time.
WHOW1-56	CEQA Section 15204. FOCUS OF REVIEW does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters.
WHOW1-57	Section 4.9, Land Use, includes a discussion of potential inconsistencies with the Preserve's Resource Management Plan.
WHOW1-58	This comment regarding potential conflict of interest of council members does not discuss the Draft EIR and, therefore, no response is required.
WHOW1-59	No specific comment is provided on the Draft EIR and no response is required.

SHUTE, MIHALY
& WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: 415 552-7272 F: 415 552-5816
www.smwlaw.com

December 6, 2010

Via E-Mail and U.S. Mail

Jeff Adams,
Community Development Department
City of Whittier
13230 Penn Street
Whittier, California 90602
comdev@cityofwhittier.org

Re: Comments on Draft Environmental Impact Report for Whittier Main Oil Field Development Project

Dear Mr. Adams:

This firm represents Hills For Everyone ("HFE"), which was formed 30 years ago with the specific mission to protect the unique, rare, and disappearing natural resources in the Puente-Chino Hills. This letter provides HFE's comments on the Whittier Main Oil Field Development Project ("Project") and the associated draft Environmental Impact Report ("DEIR"). Individual members of HFE will also be submitting comments under separate cover.

We submit this letter to inform the City that the Project conflicts with the City of Whittier's General Plan and Development Code, in violation of state Planning and Zoning Law, Govt. Code § 65000 et seq. Finally, the draft environmental impact report ("DEIR") for the Project violates the minimum standards of adequacy under the California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq.

Introduction

The Project site is located on public land designated and managed as a nature preserve. The Puente Hills Landfill Native Habitat Preserve ("Preserve") is located at the eastern edge of Los Angeles County, bounded by the San Gabriel River on

the west and the Chino Hills to the east. The Preserve encompasses approximately 3,860 acres of land, 1,290 acres of which are owned by the City of Whittier. The City's General Plan designates this land as open space. The Puente Hills Landfill Native Habitat Preservation Authority ("Habitat Authority"), in keeping with that designation, manages the Preserve as open space.

The Preserve is an integral part of the Puente-Chino Hills Wildlife Corridor, an unbroken zone of natural habitat extending nearly 31 miles. To date over $200 million has been invested in conserving this area by federal, state, regional, county, city and private agencies. The Preserve and the Puente-Chino Hills region have unique, irreplaceable natural resources with vibrant and diverse wildlife. The site supports multiple sensitive species, including critical habitat for the federally endangered California gnatcatcher, and offers natural scenic beauty and recreational opportunities for area and regional residents

It is therefore perplexing that the City is contemplating siting a seven-acre oil drilling and processing facility within the Preserve, which is clearly incompatible with the established priority of conserving this biologically resource-rich area. This Project will have serious long-term consequences for the residents of Whittier and for the Preserve. Those consequences include loss of open space, loss of habitat for sensitive species, visual impacts, recreational impacts, an increased risk of air and water pollution, an increased risk of hazardous accidents, and overall danger to the health of people and ecosystems. The General Plan and Zoning Code contain provisions designed to protect against precisely these impacts, which is why this Project cannot be approved.

Even if the Project were permissible under state and city law, it would still require thorough, comprehensive environmental review. The EIR for this proposal should be of the highest quality, giving both decision-makers and the public a full opportunity to understand and analyze environmental repercussions of the Project. An EIR is "the heart of CEQA." *Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal.3d 376 at 392 ("*Laurel Heights I*"). In particular, the County "should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311. "The EIR is also intended 'to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.' Because the EIR must be certified or rejected by public officials, it is a document of accountability." *Laurel Heights I*, 47 Cal.3d at 392 (citations omitted). Unfortunately, the DEIR fails entirely to live up to this mandate.

The DEIR suffers from several major problems and is insufficient to support a decision on the Project. In some cases, the DEIR fails altogether to address needed surveys that inform baseline conditions. In other cases, the DEIR attempts to cover the document's flaws by deferring needed studies and plans until after Project approval, and by recharacterizing these critical studies as "mitigation measures" in themselves. This is entirely impermissible under CEQA.

The document also substantially understates the severity and extent of a range of environmental impacts, including potentially devastating effects on biological resources and thus fails to provide adequate mitigation. Finally, the DEIR fails to describe and analyze a reasonable range of feasible alternatives to the Project that would substantially lessen its environmental impacts. This failure defeats CEQA's purpose of creating a process by which the public and decision-makers can fully appreciate the consequences of Project approval.

To ensure that the public and the City's decision-makers have adequate information to consider the effects of the proposed Project – as well as to comply with the law – the City must prepare and recirculate a revised DEIR that properly describes the Project, analyzes its impacts, and considers meaningful alternatives and mitigation measures that would help ameliorate those impacts.

I. The Project Is Not Consistent With the Site's General Plan Designation and Zoning and Therefore Cannot be Approved.

A. The Project Is Not Consistent With the Site's General Plan Designation.

Regardless of the DEIR's deficiencies, this Project cannot be approved. The state Planning and Zoning Law (Gov't Code § 65000 et seq.) requires that development decisions, including the issuance of a conditional use permit ("CUP"), as the Project requires, be consistent with the jurisdiction's general plan. As reiterated by the courts, "[u]nder state law, the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements." *Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806. *See also* Development Code § 85.060.040 (requiring use permits to conform to San Bernardino County General Plan). Accordingly, "[t]he consistency doctrine [is] the linchpin of California's land use and development laws; it is the principle which infuses the concept of planned growth with the force of law." *Families Unafraid to Uphold Rural El Dorado County v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1336.

It is an abuse of discretion to approve a project that "frustrate[s] the General Plan's goals and policies." *Napa Citizens for Honest Gov't v. Napa County* (2001) 91 Cal.App.4th 342, 379. The project need not present an "outright conflict" with a general plan provision to be considered inconsistent; the determining question is instead whether the project "is compatible with and will not frustrate the General Plan's goals and policies." *Napa Citizens*, 91 Cal.App.4th at 379. Here, the proposed Project does more than just frustrate the General Plan's goals. It is directly inconsistent with numerous provisions in the General Plan.

The General Plan land use designation for the Project site is "Open Space." The proposed Project would include a 144-foot high drilling rig; an oil processing facility including regeneration towers, a 50-foot tall flare stack, and various storage tanks; a gas plant; a new access road; an oil-truck loading facility; and crude oil and gas pipelines. DEIR at ES-4 and 4.6-16. As discussed below, the Project is not allowed by the General Plan or the Zoning Code.

Here, as made clear in the DEIR, the Project is inconsistent with numerous General Plan provisions including goals and policies pertaining to the issues discussed below. DEIR at 4.11-24 to 4.11-46.

HFE-1

1) The General Plan encourages development that is compatible with the environment and sensitive to adjacent uses. Land Use Element Policy 4.1. The Project is inconsistent with this provision because it will result in significant adverse impacts to sensitive habitat and species on and adjacent to the Project site. DEIR at 4.2-37. In some cases, such as noise, views, and movement corridors, the impacts are not mitigable. DEIR at ES-20 to ES-26.

HFE-2

2) The General Plan requires protection and preservation of adequate open space for major habitat types. Environmental Resource Management Element ("ERME") Policies 1.3, 3.1, 3.2. The Project is inconsistent with these provisions because it would adversely impact habitat designated as a protected Preserve. In addition, impacts to wildlife movement would be significant and not mitigable. DEIR at 4.2-41 through 4.2-47.

HFE-3

3) The General Plan requires preservation of a safe, healthful environment through the preservation of open spaces and requires compliance with noise standards for parks and other sensitive uses. ERME Goal 3, Noise Element Policy 2.5 . The Project is inconsistent with these provisions because it increases risks of air pollution and hazardous accidents to the surrounding community, including to nearby residences and a nearby school. DEIR at ES-20 and ES-23. The Project would also result in increased

noise levels that exceed standards during the Project's operational phase. DEIR at ES-23. These significant impacts would not be mitigable.

HFE-4 4) The General Plan requires maintenance of existing wildlife habitats and protection and preservation of the hillside areas and Puente Hills in particular. ERME Goal 7, ERME Policy 7.4, and Biological Resources Element Goal BIO-3. The Project is inconsistent with these provisions because it would result in significant, unmitigated impacts to wildlife habitat in the Puente Hills. DEIR at 4.2-41.

HFE-5 5) The General Plan requires protection of views and scenic corridors that contribute to the setting, character, and visitor experience of the Preserve. ERME Policy 6.2, Visual Resources and Aesthetic Element Goal Visual-1. The Project is inconsistent with these provisions because it would result in significant unmitigated noise and visual impacts on-site and in adjacent areas. DEIR at ES-23 and ES-24.

B. The Project Is Inconsistent With The City's Own Zoning Code.

The Whittier Zoning Code places the Project site in the Open Space ("OS") Zone. The code specifies that OS land "shall be essentially unimproved and devoted, used, or utilized for the preservation of natural resources, plant and animal life, and low impact recreational uses." City of Whittier Zoning Code § 18.09.040. Industrial uses, such as oil extraction and processing, are not allowed by right within this zoning district. *Id.*; *see also* DEIR at 4.11-22 (acknowledging that the Project is in conflict with the zoning for the site). According to the DEIR, the key entitlement of the Project is a conditional use permit ("CUP"), allowing the proposed development in the OS Zone. DEIR at 1-5.

The Zoning Code, however, explicitly prohibits industrial uses within the OS zone. Zoning Code §18.09.060. This specific bar to industrial uses in the OS Zone means that oil and gas drilling and production is not allowed even by CUP, despite the Code's general provision for such permits. Thus the Zoning Code does not allow the permit required for the Project. This legal conclusion is grounded in common sense: it is only reasonable that the Zoning Code bars oil and gas development in a habitat preserve and a zone devoted to maintaining open space. Any other reading of the Code would undermine the very purposes of the Preserve and the OS designation. The City cannot approve this CUP.

HFE-6 Moreover, even if a CUP is available, the City cannot make the necessary findings to grant the requested permit. In order to issue a conditional use permit for the Project, the City must make the following findings: 1) the site is adequate in size, shape

and topography; 2) the site has sufficient access to streets; 3) the use will not unreasonably interfere with the use, possession and enjoyment of surrounding adjacent properties; 4) the use will be compatible with the permitted uses of surrounding and adjacent properties; 5) the use is consistent with the General Plan and any applicable specific plan and with the Whittier zoning regulations. Zoning Code §18.52.040.

As just explained, the Project is inconsistent with the site's General Plan. Further, the Project is incompatible with and would interfere with the use of adjacent properties because it would result in: (1) significant and unavoidable localized air quality impacts; (2) significant and unavoidable noise and aesthetic impacts to nearby residences as a result of the Project's drilling activities; and (3) significant and unavoidable impacts to the community's recreational resources. *See* DEIR at ES-20 to ES-26. As the DEIR makes clear, the Project would result in significant, unmitigated impacts to adjacent properties from more than three years of construction emissions; increased vibration and ambient noise in violation of established standards, safety risks associated with accidental releases of pollutants, loss of recreational uses in the immediate vicinity, and degradation of views. DEIR at ES-20 through ES-26. Therefore, because the Project does not meet the Zoning Code standards for issuance of conditional use permits, it cannot be lawfully approved. Placing this Project in the Preserve is simply beyond the City's authority under the Zoning Code.

II. The DEIR Fails to Provide an Adequate Description of the Project and Its Setting.

Under CEQA, the inclusion in the EIR of a clear and comprehensive description of the proposed project is critical to meaningful public review. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193 ("*Inyo II*"). The court in *Inyo II* explained why a thorough project description is necessary:

> "A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance."

HFE-7

Id. at 192-93. Thus, "[a]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." *Santiago County Water District v. County of Orange*, (1981) 118 Cal.App.3d 818, 830.

HFE-8

The DEIR fails to describe aspects of the Project critical to its analysis. The DEIR acknowledges significant impacts to nearby residents, schoolchildren, and biological resources resulting from foreseeable accidents and oil spills. DEIR at 4.2-40, 4.3-60 and 4.3-61. Therefore, the DEIR must fully describe all procedures relevant to these potential impacts, such as any procedures intended to prevent spills or respond to emergencies. The DEIR fails to provide this crucial information. For example, the DEIR mentions a Spill Prevention, Control and Countermeasure Plan, but the plan does not seem to appear anywhere in the document. See DEIR at 4.2-40. Similarly, various other plans, including an Emergency Response Plan, are cited in mitigation measures for potentially significant impacts, yet none of these plans appear in the DEIR. *Id.* In sum, the DEIR fails to describe the project with sufficient accuracy and specificity to enable either substantive public comment or an informed decision on the Project.

HFE-9

An EIR also "must include a description of the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and a regional perspective." CEQA Guidelines § 15125; see also *Environmental Planning and Info. Council v. County of El Dorado*, (1982) 131 Cal.App.3d 350, 354. CEQA requires that special emphasis be placed on environmental resources that are rare or unique to that region and that would be affected by the Project. CEQA Guidelines § 15125(c). Here, the DEIR's discussion of the project description and environmental setting is sorely deficient.

The DEIR's description of the Project's environmental setting is inadequate because it entirely ignores certain species that are likely to occur on site, such as non-vascular plants and invertebrate animals, both important to biodiversity. See David Magney Environmental Consulting Letter attached to the Habitat Authority Letter dated December 1, 2010 ("DMEC Letter") at 9. The DEIR fails to disclose habitat for four species of butterfly listed in the Resource Management Plan ("RMP") for the Preserve. *Id* at 12 and 13. This oversight is particularly disturbing given the identification by the RMP of the presence of habitat and individuals of these butterfly species on the Project site. (*Compare* RMP at Appendix, pages 150-151 (documented observations of butterfly species) with DEIR at Tables 4.2-1 and 4.2-2 (no mention of butterfly species); *see also* DMEC Letter at 12 and 13).

HFE-10

The DEIR also fails to include information on special-status terrestrial mollusks with a potential to occur on-site. DMEC Letter at 13 and 14. As confirmed by the DMEC Letter, the "likelihood of one or more species of rare terrestrial mollusks being present on the preserve is high." *Id.* at 14. Thus, the DEIR should have included surveys for this species as part of its assessment of biological resources. Accordingly, the

DEIR's description of the biological setting (and the document's impact analysis) must be revised to include consideration of these species.

III. The DEIR Fails to Analyze and Mitigate the Project's Significant Environmental Impacts.

CEQA requires that an EIR be detailed, complete, and reflect a good faith effort at full disclosure. CEQA Guidelines § 15151. The document should provide a sufficient degree of analysis to inform the public about the proposed project's adverse environmental impacts and to allow decision-makers to make intelligent judgments. *Id.* Consistent with this requirement, the information regarding the project's impacts must be "painstakingly ferreted out." *Environmental Planning and Info. Council of Western El Dorado County v. County of El Dorado* (1982) 131 Cal.App.3d 350 at 357 (finding an EIR for a general plan amendment inadequate where the document did not make clear the effect on the physical environment).

Meaningful analysis of impacts effectuates one of CEQA's fundamental purposes: to "inform the public and responsible officials of the environmental consequences of their decisions before they are made." *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1993) 6 Cal.4th 1112, 1123 ("*Laurel Heights II*"). To accomplish this purpose, an EIR must contain facts and analysis, not just an agency's bare conclusions. *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568. Nor may an agency defer its assessment of important environmental impacts until after the project is approved. *Sundstrom*, 202 Cal.App.3d at 306-07. An EIR's conclusions must be supported by substantial evidence. *Laurel Heights I*, 47 Cal.3d 376 at 409.

As documented below, the project DEIR fails to identify, analyze, or support with substantial evidence its conclusions regarding the Project's significant environmental impacts. These deficiencies clearly demonstrate the inadequacy of the DEIR under CEQA.

A. The DEIR Fails to Adequately Analyze the Project's Land Use Impacts.

As the DEIR concedes, oil drilling and production within a habitat preserve is obviously an incompatible use. *See e.g.*, DEIR at 4.11-20, 4.11-21, 4.11-25, 4.11-32 and 4.11-33. These conflicts with the applicable land use plans are significant impacts under CEQA. The DEIR concludes that the Project is consistent with the current General Plan (DEIR at 4.11-12). However, as discussed above in section I of this letter, this

conclusion is unfounded and not supported by substantial evidence. In fact, these plain inconsistencies represent significant impacts, and the DEIR must acknowledge as much.

HFE-11

The DEIR glosses over many of the Project's glaring inconsistencies with General Plan provisions relating to the preservation of open space. For example, the DEIR acknowledges the Project's inconsistency with General Plan Policy 1.3 and Policy 3.1 due to impacts on habitat and scenic viewsheds that are not mitigable (DEIR at 4.11-31 and 4.11-32), yet it fails to recognize these inconsistencies as significant impacts. Instead, the DEIR attempts to invoke language in the General Plan calling for a "balance" between oil drilling activities ongoing at the time of General Plan adoption and protection of open space and habitat. DEIR at 4.11-22. However, in the years since the General Plan was adopted, the Project site has been designated as a Preserve and this afforded "permanent protection for the native habitat," clearly indicating the community's intent to protect the area as a community and natural resource. RMP at 1. The DEIR itself acknowledges that "land use policies in the Whittier Hills and in the wider Chino-Puente Hills region have been designed and implemented with the understanding that the lands that include the Project Site would be restored, maintained, and preserved consistent with their special land use designations." DEIR at 4.2-42. Thus, the "balancing" discussed in the General Plan is no longer appropriate. The balance has been struck in favor of preservation.

Moreover, an abundance of policies in the General Plan indicate a priority of preservation for the site. *See, e.g.*, General Plan policies 1.3 ("preserve adequate open space for major habitat types"), 3.1 ("protect existing wildlife habitats through preservation of open space"), 3.2 ("future hillside development will be permitted or approved only if it involves minimal adverse impacts on the environment and natural topography"), 4.1 ("encourage new industrial development to be compatible with the environment and sensitive to adjacent or nearby properties"), and Goal 3 ("secure a safe healthful, and wholesome environment through careful planning and preservation of open space resources") among others. Thus, the EIR should be revised to analyze each of the Project's inconsistencies with the General Plan.

HFE-12

As discussed in section II.B above, the Project would conflict directly with several core provisions of the General Plan relating to compatibility of proposed development with adjacent uses. *See*, *e.g.*, Land Use Element Policy 4.1, ERME Goal 3, ERME Policy 6.2, and Visual Resources and Aesthetic Element Goal Visual-1. However, the DEIR presents contradictory evaluations of the Project's consistency with these policies. On the one hand, the DEIR acknowledges significant, unmitigated impacts relating to noise and visual resources upon adjacent land uses. DEIR at 4.11-20 and 4.11-21. On the other hand, it contradicts itself and concludes that the Project would

not conflict with the General Plan. DEIR at 4.11-22. The EIR cannot have it both ways. The Project's clear inconsistencies with the General Plan must be identified as significant impacts.

HFE-13 Moreover, the DEIR reveals that the Project, even after mitigation, will violate numerous provisions of the Habitat Authority's Resource Management Plan ("RMP"). The DEIR acknowledges the Project's inconsistency with Goal BIO-3 calling for maintenance of *all* populations of native plants and wildlife. DEIR at 4.11-43 and RMP at 79. The document also acknowledges the Project's inconsistency with RMP Goal Visual-1 to "protect and enhance views and distinctive landscape features that contribute to the setting, character and visitor experience of the Preserve." DEIR at 4.11-45 and 4.11-46 and RMP at 87. However, the document fails to recognize these inconsistencies as significant impacts. DEIR at 4.11-22.

HFE-14 In addition, the Project also conflicts with other provisions of the RMP, undisclosed in the DEIR. They include RMP Objective Bio 3.1 ("Protect and maintain coastal sage scrub breeding habitat for the federally-threatened coastal California gnatcatcher and other scrub species") and Objective Bio 3.7 ("Encourage new development adjacent to the Preserve to provide an appropriate buffer zone on the development site to minimize edge effects") and Objective Visual 1.3 ("Protect visitor experience of the Preserve from noise impacts"). Rather than providing the protections intended by these goals and objectives, the proposed Project would destroy coastal sage scrub habitat (DEIR at 4.2-37), subject the Preserve to direct and edge effects without adequate buffers (DEIR at 4.2-39), and alter visitors' experience to the Preserve by increasing ambient noise and vibration levels (DEIR at ES-23). These inconsistencies further serve to highlight the inappropriateness of reestablishing oil and gas production in an area designated and managed as a Habitat Preserve. CEQA requires the EIR to acknowledge these inconsistencies as significant impacts.

B. The DEIR Fails to Adequately Analyze and Mitigate Significant Impacts to Biological Resources

HFE-15 The Project site is extremely rich in biological resources. According to the DEIR, the Project site provides habitat for at least one species protected by the federal Endangered Species Act and at least 22 species listed as "California Species of Special Concern" or "California Special Animals." DEIR at Table 4.2-2. Importantly, as acknowledged by the DEIR, the Project site has been "recognized as occupying an especially sensitive and important portion of both the Preserve and the greater Chino-Puente Hills region." DEIR at 4.2-42. Indeed, the City of Whittier General Plan identifies the Project site as an area of "high sensitivity" and acknowledges the Project

site as a "priority target for conservation and preservation." DEIR at 4.2-27. The Project site is also identified by the RMP as an area that "provides habitat for a unique assemblage of plants and animals" and that is "regionally and globally significant." RMP at 9. Both the City and the agency charged with management of the Preserve thus have identified this area as a high priority for conservation and preservation.

HFE-16 Given the importance of the biological resources present on the Project site, the DEIR's incomplete discussion of impacts to biological resources is troubling. As detailed below the DEIR underestimates Project-related impacts to biological impacts as a result of a series of errors, including: (1) the failure to describe accurately the environmental setting; (2) the failure to analyze impacts to sensitive species and habitats; and (3) the reliance on inadequate mitigation measures. The DEIR's treatment of biological impacts does not meet CEQA's well established legal standard for impacts analysis. Given that analysis and mitigation of such impacts are at the heart of CEQA, the DEIR will not comply with the Act until these serious deficiencies are remedied.

1. The EIR Fails to Adequately Describe the Project's Biological Setting.

HFE-17 An EIR must provide comprehensive information about the Project's environmental setting in order to provide a baseline for evaluating Project impacts. What information the DEIR provides about the biological setting is riddled with gaps in information. First, the DEIR takes a narrow view of the area's extraordinarily rich biological communities. Rather than depicting the interlocking networks of habitat and species that span the boundaries between different parks, preserves, and jurisdictions, the DEIR largely looks at the Project area in isolation, minimizing the surrounding ecosystems. For example, the DEIR fails to provide historic context of the Puente-Chino Hills as a whole. This leads to an inaccurately sparse view of the area's ecology, which hinders a complete analysis of potential impacts on biological resources. A description of the project setting that includes historic context, regional importance, and ecosystem services is critical to understanding the magnitude and significance of direct, indirect, and cumulative impacts.

The DEIR plays down the Project area's recognized high sensitivity and dramatically understates the importance of the Project site to the biodiversity of the region. DMEC Letter at 14 and 15. Most of the Project's facilities would fall within the boundaries of the Preserve, which provides linkages and connectivity to several conservation areas located in close proximity to the Project area (*e.g.*, Whittier Narrows Regional Park, Schabarum Regional Park, Chino Hills State Park, the Cleveland National Forest in the Santa Ana Mountains, the Coal Canyon Tecate Cypress Reserve and the

former Irvine Ranch lands now owned by Orange County Parks) that could be affected by implementation of the Project. The above-mentioned areas and others are important conservation areas that support biological resources that are significant on both a local and regional scale. The Preserve exhibits a high degree of biodiversity. RMP at 9. Biodiversity is one measure of the health and vitality of ecosystems and, as explained in the DMEC Letter, a vitally important one. Yet, the DEIR fails to calculate the overall biodiversity of the Preserve. Instead, the DEIR focuses its analysis of habitat impacts to the extent of direct habitat removal and fails to analyze the broader impact of loss of biodiversity. As the RMP points out, "biologically, this area preserves a microcosm of the California Floristic Province, an identified biodiversity hot spot in North America and a genetic reserve for the continent." RMP at 9. Thus, the Preserve is a critical biological resource that should be treated with utmost care in order to avoid significant and irreversible environmental impacts.

HFE-18

Second, the DEIR presents incomplete and inaccurate background data. For example, surveys to establish baseline conditions were restricted to the immediate area surrounding the proposed facilities (i.e., direct impacts) under the proposed Project. FEIR, Appendix C, Lukos Associates Letter at C-1 and C-2 and Exhibit 2; Appendix C, LSA Associates letter at C-24. Yet, adjacent habitat that may be directly or indirectly impacted during Project implementation (such as due to disturbances and increased noise related to the proposed new access road, for example) were not included in the Project "study area" and so, were not surveyed. *Id.*

HFE-19

The EIR's perfunctory description of the sensitive species and habitats present in the Project area results in an incomplete description of the sensitive environmental setting of the Project. According to settled case precedent, this failure to describe the Project setting violates CEQA. *See San Joaquin Raptor*, 27 Cal.App. 4th at 724-25 (environmental document violates CEQA where it fails to completely describe wetlands on site and nearby wildlife preserve).

2. The DEIR Fails to Adequately Analyze the Project's Direct and Indirect Impacts to Sensitive Species and Sensitive Habitats.

a. Direct Impacts

Despite the DEIR's acknowledgement that the Project would adversely affect the Preserve's designated Core Habitat Management Zone, an area set aside for the sole purpose of providing undisturbed habitat for wildlife, the DEIR fails to adequately analyze adverse impacts to sensitive species that it acknowledges are present in the Project area. For example, the DEIR acknowledges the presence of multiple California

HFE-20 Species of Special Concern ("CSC") (e.g., Coronado skink, silvery legless lizard, California yellow warbler, yellow-breasted chat, pallid bat and northern harrier) in the Project area. DEIR at Table 4.2-2. Similarly, the DEIR acknowledges the presence and/or suitable habitat for a number of species listed as California Special Animals ("CSA"). DEIR at Table 4.2-2. According to the DEIR, the taxa on this list are those the California Department of Fish and Game considers to be "those of greatest conservation need." DEIR at 4.2-17. Yet, the DEIR, with no evidentiary support, dismisses impacts to these species, stating that they have limited potential to occur or that they are widespread elsewhere in the region, and concludes that impacts to these CSC and CSA species are less than significant. DEIR at 4.2-37.

HFE-21 In another example, the DEIR acknowledges the presence of Southern California black walnut, a California Native Plant Society List 4 ("CNPS 4") species, but fails to analyze the Project's impacts on this species. The DEIR seems to take the approach that since this species does not have State or federal status for protection, impacts to it need not be analyzed or mitigated. *Compare* DEIR Appendix C, Biological Reports at C-26 (identifying Southern California black walnut as CNPS 4 List species and as sensitive species in the RMP) and DEIR at 4.2-37 through 4.2-48 (no mention of impacts to Southern California black walnut). However, this approach is contrary to CEQA. A plant need not be in the CNPS Inventory (*i.e.,* CNPS Lists 1 and 2) or have State or federal status to be considered rare, threatened, or endangered under CEQA. *See* Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities, California Resources Agency, 2000, attached as Exhibit A. Here, the Habitat Authority's RMP considers the Southern California black walnut a sensitive species. RMP at 77. According to CEQA, an EIR must analyze project impacts on "any species identified as a candidate, *sensitive*, or special status species in *local or regional plans, policies or regulations*". CEQA Guidelines Appendix G at IV.a; emphasis added. Indeed, the DEIR's own significance criteria adopt this threshold. DEIR at 4.23-34. Therefore, the DEIR should have analyzed impacts to this species and identified feasible measures to mitigate any impacts.

HFE-22 The DEIR also acknowledges adverse impacts to the five sensitive species of bats for which the Project site provides habitat. DEIR at 4.2-16, 4.2-17 and 4.2-45. However, rather than analyze all of the impacts to these sensitive bat populations, the DEIR focuses only on the loss of occupied maternity roosts and ignores the loss of other roosting sites and foraging habitat. DEIR at 4.2-45 and 4.2-46. Since elimination of foraging and roosting habitat would also contribute to these species' decline, the DEIR is obliged to analyze these impacts. In addition, the DEIR fails to analyze impacts to bats from noise and vibration. *See generally* Exhibits B and C, Jones, Sensory Ecology:

Noise Annoys Foraging Bats and Schaub et al., Foraging Bats Avoid Noise. The revised DEIR should: (1) survey the bat population on and adjacent to the Project site; (2) analyze the impacts to the bat population from habitat removal and other disturbances; and (3) propose suitable mitigation.

HFE-23

Similarly the DEIR's analysis of impacts to raptors such as owls and northern harriers simply asserts that they would be affected by a reduction in nesting resources, ignoring altogether the impacts caused by loss of habitat. DEIR at 4.2-45. Urbanization has a profound effect on raptors because they require large areas to hunt and are disturbed by human activity near their nests. Moreover, the DEIR's sole mitigation proposal for raptors focuses exclusively on avoiding active nests. It ignores perch resources and the role that loss of habitat and urbanization have on raptors. In any event, the DEIR must quantify the Project's effects on raptors, and the efficacy of the proposed mitigation, so that the public and decisionmakers may reach their own conclusions. *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 130.

b. Indirect Impacts

HFE-24

The DEIR fails to analyze adequately the Project's myriad indirect impacts on wildlife. For example, the DEIR concedes significant impacts would result from vibration raised by Project-related drilling activities, but then fails to analyze potential impacts from increased vibration on wildlife. As explained in the DMEC Letter and acknowledged in the DEIR, the Project site is within a sensitive area that biologists characterize as a "native wildlife nursery site" and serves as an important refuge for wildlife reproduction. DMEC Letter at 18 and DEIR at 4.2-42. Increased vibration has the potential to disrupt nesting of migratory birds and other sensitive species. See generally Science Daily, Noise Pollution Negatively Affects Woodland Bird Communities, attached as Exhibit D; West et. al., Noise Impacts on Birds: Assessing Take of Endangered Species, attached as Exhibit E; and Times of India Oil Wells Rattle Migratory Birds at Thol, attached as Exhibit F. Yet the DEIR fails to provide an analysis of expected impacts from the significant increase in vibration, thus failing to describe the extent and severity of the impact. Merely stating that an impact will be significant is insufficient; an EIR must also provide "information about how adverse the adverse impact will be." *Santiago County Water District v. County of Orange* (1981) 118 Cal. App. 3d 818, 831. This information, of course, must be accurate and more than mere conclusions or speculation. *Id.*

In another example, the DEIR discloses that the Project would result in a variety of "residual" effects to sensitive wildlife species and federally protected riparian

HFE-25 habitat, including: "impacts to preserved habitats that lie outside of limits of disturbance from "edge effects" that can't be completely eliminated through mitigation," "temporal losses that would occur before the restoration efforts provide functioning habitat" and "a compromised capacity to rebound from disruptive processes" due to an ecological system that is already under stress from surrounding intensive development. DEIR at 4.2-38 and 4.2-39. Yet, the DEIR fails to describe and quantify these effects and then concludes, without any evidence, that these impacts would not be significant.

HFE-26 Similarly, the DEIR fails to account for the impending impacts to coastal sage scrub resulting from climate change. According to studies being performed at the University of California at Irvine, impacts of climate change (*e.g.*, warming and changes in precipitation) will interact with other stresses, such as those imposed by this Project. *See* "Climate Change Effects in Southern California Ecosystems," presentation by Dr. Michael Goulden, Chairman, Department of Earth Systems Science, University of California at Irvine on November 17, 2010 in the Newport Beach Community Center at the Friends of the Newport Coast Annual Meeting, excerpted slides attached as Exhibit G. Coastal sage scrub in inland areas of Orange County may be especially vulnerable to anticipated climate changes. *Id.* The studies indicate that increased pollution and decreased rainfall convert coastal sage scrub to non-native grasslands. *Id.* These combined stresses are likely to result in impacts to sensitive vegetation communities greater than the impacts of the Project under current conditions.

HFE-27 Indirect impacts from noise, vibration, light, and pollution can be just as devastating to wildlife as the direct loss of habitat. *See generally* Exhibits H and I, Radle, The Effect of Noise on Wildlife: A Literature Review and Longcore et al., Ecological Light Pollution. Yet the DEIR dismisses potential indirect effects, stating that "indirect impacts to wildlife are typically not quantified beyond the extent of habitat removal due to the high variability of certain species' response to various factors," thereby suggesting the task would be too difficult. DEIR at 4.2-42. This sort of excuse-making does not substitute for analysis. The City cannot evade its obligation to analyze Project impacts on the grounds that it would be too difficult to determine impacts on various species. The California Supreme Court has clearly rejected such an approach. As explained by the Court in *Laurel Heights I*, "[w]e find no authority that exempts an agency from complying with the law, environmental or otherwise, merely because the agency's task may be difficult." 47 Cal.3d at 399.

3. The DEIR Lacks Adequate Mitigation for the Project's Significant Impacts to Biological Resources

HFE-28 An EIR is inadequate if it fails to suggest mitigation measures, or if its suggested mitigation measures are so undefined that it is impossible to evaluate their effectiveness. *San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61 at 79. The City may not use the inadequacy of its impacts review to avoid mitigation: "The agency should not be allowed to hide behind its own failure to collect data." *Sundstrom*, 202 Cal.App.3d at 306. The formulation of mitigation measures may not properly be deferred until after Project approval; rather, "[m]itigation measures must be fully enforceable through permit conditions, agreements, or legally binding instruments." CEQA Guidelines § 15126.4(a). As explained below, the DEIR's identification and analysis of mitigation measures, like its analysis of biological impacts, are legally inadequate.

HFE-29 This DEIR inappropriately defers mitigation. For example, the DEIR concedes that the Project could result in significant impacts to wildlife and habitat due to a rupture or leak in the oil wells or pipeline. DEIR at 4.2-40. Despite this acknowledgment, the DEIR merely proposes as mitigation that the applicant would "prepare a plan that would address protection of sensitive biological resources and revegetation of any areas disturbed." DEIR at 4.2-41. The DEIR never explains the contents of this plan and the mitigation measure does not commit to specific performance standards.

HFE-30 Moreover, from the information the DEIR does provide about this plan, it appears that the emergency response plan would do nothing to mitigate the loss of wildlife and habitat killed or damaged by a spill itself. Instead, it would address only the prevention of further impacts to wildlife during the removal of spilled material. This is inadequate on its face. Rather than focus on the obvious issue – direct mortality of wildlife, loss of foraging and nesting habitat, and contaminated water that would affect sensitive resources – the document would have the reader believe that the preparation of a vague plan would somehow protect the site's sensitive biological resources. *See Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 195 (agency may not use vague mitigation measures to avoid disclosing impacts).

HFE-31 While some proposed mitigation measures are vague and unenforceable, others would be simply ineffective. For example, the DEIR's purported mitigation of impacts to raptors and migratory birds is limited to avoiding direct disturbance by construction activity during breeding season. DEIR at 4.2-45. The DEIR does nothing to protect these species during the non-breeding season and simply ignores the impacts caused by the day-to-day operations of an oil drilling operation. Similarly, the DEIR's mitigation for impacts to special-status bats fails to protect foraging habitat and roosting sites outside of avoiding occupied maternity roosting sites during the breeding season.

Id. Such incomplete, ineffective mitigation does not comply with CEQA. CEQA Guidelines § 15126.4(a)(1).

Finally, given the importance of the Preserve, both as a wildlife preserve in its own right and as part of the larger Puente-Chino Hills Wildlife Corridor, this EIR should have developed innovative mitigation measures of the highest standards to mitigate significant/unavoidable impacts to wildlife movement. The DEIR concludes that the Project would result in significant and unavoidable impacts to wildlife movement, but then fails to adequately mitigate this impact. DEIR at 4.2-42 to 4.2-45. Instead, the DEIR identifies a list of conventional measures such as installing sound walls, shielding lights, and avoiding direct impacts to nesting birds. These measures fall far short of mitigation for the loss of habitat used for wildlife nurseries, reproduction, shelter, and feeding away from human disturbance.

HFE-32 Instead, the DEIR should have considered mitigation that would create habitat linkages and opportunities for wildlife movement elsewhere. For example, the EIR should have included a measure to construct a wildlife bridge over a portion Colima Road away from the proposed construction. This would mitigate the Project's otherwise significant impact on mammals, such as coyote, bobcat, and mountain lion by allowing individuals an alternative movement corridor connecting the eastern half of the Project site to lands to the east. In addition, the EIR should include a measure requiring the applicant to create a fund for acquisition of other lands that serve as corridors and linkages rather than focusing only on restoration of degraded lands. Acquisition of lands to replace linkages impacted by this Project would provide opportunities for wildlife movement. Without replacement of opportunities for wildlife movement, the remaining habitat on the Preserve may not sustain current uses and values.

In short, the DEIR's analysis of impacts to biological resources dramatically understates the Project's potential to significantly affect sensitive species and sensitive habitats. At the same time, the DEIR fails to provide effective, enforceable measures to mitigate such potentially significant impacts. To comply with CEQA, the County must prepare a revised DEIR fully analyzing the Project's potential impacts to these resources and identifying effective mitigation measures. Revisions of the required magnitude will in turn require recirculation of the DEIR. CEQA Guidelines 15088.5(a)(4).

C. The EIR Underestimates the Project's Greenhouse Gas Emissions and Fails to Adequately Mitigate Climate Change Impacts

While the DEIR appropriately acknowledges the importance and legal necessity of analyzing the Project's contribution to global climate change, the document's climate change analysis is essentially perfunctory. It calculates only a portion of the carbon emissions for which the Project will be responsible and then fails to identify mitigation measures to reduce or avoid the Project's contribution to global warming.

1. The DEIR Underestimates The Project's GHG Emissions by Failing to Include Analysis of Black Carbon

The DEIR's estimate of the Project's greenhouse gas ("GHG") emissions fails to account for the Project's black carbon emissions. Black carbon, which is a component of soot, is produced by incomplete combustion and is a significant contributor to global warming. Although combustion produces a mixture of black carbon and organic carbon, the proportion of black carbon produced by burning fossil fuels, such as diesel, is much greater than that produced by burning biomass. *See* Exhibit J, Ramanathan and Carmichael, Global and Regional Climate Changes Due to Black Carbon, Scripps Institution of Oceanography.

Black carbon heats the atmosphere in a variety of ways. First, it is highly efficient at absorbing solar radiation and in turn heating the surrounding atmosphere. Second, atmospheric black carbon absorbs reflected radiation from the surface. Third, when black carbon lands on snow and ice, it reduces the reflectivity of the white surface which causes increased atmospheric warming as well as accelerates the rate of snow and ice melt. Fourth, it evaporates low clouds. Notably, black carbon is often associated with other aerosols such as sulfates, which greatly increases its heating potential. *Id.*

Due to black carbon's short atmospheric life span and high global warming potential, reducing black carbon emissions offers an opportunity to mitigate the effects of global warming trends in the short term. *Id.* It is estimated that black carbon is the second greatest contributor to global warming behind carbon dioxide. *Id.* In developed countries, diesel combustion is the main source of black carbon. Diesel particulate matter is approximately 75 percent elemental carbon. *See* EPA, 2002 Diesel Health Assessment, available at http://www.scribd.comldocIl011457IHealth-Assessment-Document-forDiesel-Engine-Exhaust-EPA-May-2002. Construction and operation of the Project will require the use of diesel powered trucks and equipment and will result in exceedances of Particulate Matter, which will result in significant black carbon emissions. DEIR at 4.1-29. Yet, the DEIR ignores this contributor to climate change

HFE-33

when evaluating GHG emissions. Black carbon emissions must be quantified and mitigated as part of the revised EIR for the Project.

2. The DEIR Fails to Mitigate the Project's Climate Change Impacts

CEQA's central mandate is that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." *Berkeley Keep Jets Over the Bay Comm. v. Bd. of Port Comm'rs* (2001) 91 Cal.App.4th 1344,1354 (quoting Pub. Res. Code § 21002). CEQA requires lead agencies to identify and analyze all feasible mitigation, even if this mitigation will not reduce the impact to a level of insignificance. CEQA Guidelines, § 15126.4(a)(l)(A) (discussion of mitigation measure "shall identify mitigation measures for each significant environmental effect identified in the EIR"); see also *Woodward Park Homeowners Ass'n, Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683, 724 ("The EIR also must describe feasible measures that could minimize significant impacts.").

Here, the EIR takes the approach of relying on future preparation of a "program to quantify and reduce greenhouse gas emissions" as mitigation for any potential impacts related to GHG emissions. DEIR at 4.1-38. Because the EIR calls for deferring the preparation of this program, and because it fails to provide enforceable measures and performance criteria for the proposed measure, there is no assurance the climate change impacts would be mitigated at all. *See Sacramento Old City Ass'n v. City Council* (1991) 229 Cal.App.3d 1011.

This mitigation scheme is a clear violation of CEQA, as explained in the recent case of *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93 ("*CBE*"). In that case, the Court of Appeal invalidated a similar attempt to defer climate change mitigation. *Id.*. There, the agency had proposed the future development of GHG mitigation plan providing in its final EIR only a "perfunctory listing of possible mitigation measures" that might be adopted in a future plan. *Id.* at 93. The court found such deferral of mitigation particularly inappropriate because the "novelty of greenhouse gas mitigation measures" made it crucial that "mitigation measures timely be set forth, that environmental information be complete and relevant, and that environmental decisions be made in an accountable arena." *Id.* at 96 (internal quotation omitted). Here, as in *CBE*, the City's proposed Mitigation Measure AQ-4 similarly offers a perfunctory list of potential measures directed at climate change, providing no more assurance to the public than the mitigation rejected in that case.

HFE-34

As in *CBE*, the EIR's proposed mitigation measure is vague, insubstantial, and non-binding, and thus cannot be relied on to mitigate Project impacts. First, the document does not provide a sufficient description of the measures included in the program to allow the decision maker and the public to evaluate their likelihood of success in reducing emissions. For example, the document merely provides a list of generic measures calling for, for example, the installation of "high efficiency pumps." DEIR at 4.1-38. This bare-bones description does not allow the public or the decision maker to determine whether the measures would in fact reduce GHG emissions, let alone to determine what quantity of emissions they would eliminate. The document provides no performance criteria defining "high efficiency." A conclusion that a measure will be effective in mitigating an impact must be supported by substantial evidence. *Gray v. County of Madera* (2008) 167 Cal. App, 4th 1099, 1115-18; see also *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App,3d 61,79 (measures must not be so vague that it is impossible to gauge their effectiveness).

Under CEQA, measures relied upon to mitigate impacts must be "fully enforceable" through permit conditions, agreements, or other legally binding instruments. Pub. Res. Code § 21081.6(b); CEQA Guidelines § 15126.4(a)(2). Similarly, they must actually be implemented, not merely adopted and then disregarded, and thus the mitigation must provide assurance that such implementation will in fact occur. Anderson First Coalition v. City of Anderson, 130 Cal, App. 4th 1173, 1186-87 (2005); *Fed'n of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal. App. 4th 1252, 1261. The proposed mitigation measures do not meet this standard. For example, Mitigation Measure AQ-4 does not state that the applicant will make any binding commitment to fully comply with the mitigation measure. Moreover, the EIR does not describe how the City would ensure that the Project in fact incorporates all of the proposed mitigation measures.

GHG emission mitigation measures are readily available. *See, e.g.*, CAPCOA, "CEQA and Climate Change" excerpts attached as Exhibit K and are available at http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf; California Department of Justice, "The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level" attached as Exhibit L and available at http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf; and Governor's Office of Planning and Research, "CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review" attached as Exhibit M and available at http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf. A revised

and recirculated EIR should draw on these resources to develop a concrete mitigation plan. Until it does so, this environmental review will remain inadequate.

D. The DEIR Provides No Analysis of the Project's Cumulative Impacts

An EIR must discuss a Project's significant cumulative impacts. CEQA Guidelines § 15130(a). CEQA defines "cumulative impacts" as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines § 15355(a). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." CEQA Guidelines § 15355(a). A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." CEQA Guidelines § 15355(b). Cumulative impacts analysis is necessary because "environmental damage often occurs incrementally from a variety of small sources [that] appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact." *Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 114.

HFE-35

The analysis of cumulative impacts in the DEIR is cursory and superficial. First, the list of reasonably foreseeable future projects considered in the DEIR is underinclusive, especially in light of the potential geographic scope of certain potentially significant impacts. The DEIR considers only projects in the immediate area, despite the Project's potential impacts on air quality, biology, water quality, and hydrology that could extend far beyond the area considered. The DEIR should have included, for example, projects that have been approved but not yet completed in Brea (*e.g.*, the Tonner Hills, and Canyon Crest projects) and in Yorba Linda (*e.g.*, the Vista del Verde, Pulte, and Shapell projects). In addition, the Murdoch property in Yorba Linda is currently in the planning process for development of more than 300 residences. The DEIR does not provide the required "reasonable explanation" for this narrow geographic limitation. CEQA Guidelines § 15130(b)(3). Unless the DEIR is revised to incorporate a more inclusive approach, its analysis of cumulative impacts will remain deficient.

Second, the DEIR fails to analyze adequately a number of potential cumulative impacts, most critically impacts to biological resources. Because the site supports an array of sensitive species and because development of the oil field operations would significantly impact many of these species, the DEIR should have carefully analyzed the cumulative impacts of the loss of habitat together with other habitat loss in

HFE-36 the County as a whole. The need for such analysis is compelling given the concerns about the changes in native landscapes, habitat fragmentation, disruption of landscape linkages and wildlife corridors, and biodiversity as a consequence of development and other forms of resource use. Incredibly, the DEIR contains virtually no analysis of the Project's cumulative impact upon biological resources. This omission alone, triggers the requirement that the DEIR be revised and recirculated.

Instead of following CEQA's mandate, the DEIR betrays a fundamental misunderstanding of the statute. Here, the DEIR fails to actually analyze the effect of the Project together with effects of related projects on biological. The document reiterates the Project's impacts and proposed mitigation measures and then concludes that, since the DEIR identified only one Project-related significant and unavoidable impact that could not be mitigated (i.e., impacts on wildlife movement), this would be the only area where the Project would contribute to cumulative adverse effects. DEIR at 4.2-50. Thus, the EIR assumes that if an impact were less than significant, it could not be cumulatively considerable. This turns cumulative analysis on its head and is a plain violation of CEQA. An EIR may not conclude that a project will not contribute to cumulative impacts simply because it has a less than significant impact on a project level. *See Kings County*, 221 Cal.App.31 at 720-21.

The purpose of analyzing cumulative impacts is to determine whether a collection of less than significant impacts may combine to be cumulatively considerable. It is wholly inappropriate to end a cumulative analysis on account of a determination that a project's individual contribution would be less than significant. Rather, this should
HFE-37 constitute the beginning of the analysis.

While the Project-related impacts associated with loss of habitats might be partially mitigated by restoration of habitats elsewhere in the Preserve, the end result is still a net loss of land available for habitat within the Preserve. Moreover, it is widely known that there has been a substantial loss of biological resources in this area of the Puente-Chino Hills as a result of urbanization. The Puente-Chino Hills Wildlife Corridor ecological system survives in the face of myriad threats and stresses from previous development in the area, and additional, incremental adverse impacts from habitat loss and other environmental impacts may very well push it to collapse. The dismissive approach of the DEIR towards the cumulative contribution of the Project stands to condemn the remaining biological resources in this area to the proverbial "death by a thousand cuts."

Furthermore, as discussed above, in the absence of detailed Project-specific analysis of biological resources impacts, the EIR simply has no evidentiary basis to

conclude that Project-specific impacts would be less than significant. CEQA mandates that the public be informed of the totality of the impacts of those other projects along with the present project under consideration. The revised DEIR must therefore evaluate the potential loss of resources from all the past, present, and probable future projects in the Puente-Chino Hills and identify mitigation capable of offsetting this loss. The EIR must examine other projects and determine whether impacts of the project under review are significant when considered in combination with the others. CEQA Guidelines § 15130(b)(1)-(3).

HFE-38

Similarly, the DEIR glosses over the potential cumulative impacts related to greenhouse gas emissions and fails to perform an adequate analysis here as well. Agencies must also analyze the cumulative impacts of a project's GHG emissions in conjunction with other projects causing related impacts. CEQA Guidelines § 15130. Indeed, climate change is the classic example of a cumulative effects problem; emissions from numerous sources combine to create the most pressing environmental and societal problem of our time. *Kings County Farm Bureau v. City of Hanford*, (1990) 221 Cal.App.3d 692, 720 ("Perhaps the best example [of a cumulative impact] is air pollution, where thousands of relatively small sources of pollution cause serious a serious environmental health problem."). If an agency's analysis indicates that a proposed project will have a significant cumulative impact related to climate change, the agency must identify and adopt feasible mitigation measures to address this impact. CEQA Guidelines § 15126.4(c). Moreover an EIR must include objective measurements of a cumulative impact when such data are available or can be produced by further study and are necessary to ensure disclosure of the impact. *See Kings County*, 221 Cal.App.3d at 729.

HFE-39

Despite this mandate, the DEIR makes no specific attempt to measure how the development of related projects would contribute to climate change. The DEIR foregoes analysis of cumulative conditions and summarily concludes that because the Project's greenhouse gas emissions are considered significant, cumulative greenhouse gas emissions would also be significant. However, this type of conclusory statement does not substitute for reasoned analysis. The City could and is obligated to perform the necessary analysis to quantify the anticipated impacts. For example, the City could prepare a county-level GHG inventory and then evaluate the Project's contribution toward the 2020 and 2050 emission reduction goals for the region. Once the Project's contribution is established, the agency would determine whether that contribution is cumulatively considerable and thereby significant, and to identify feasible measures to reduce any significant impacts. Pursuant to CEQA, the DEIR must be revised to include: (1) a complete and adequate inventory of the project's greenhouse gas emissions; (2) a full

discussion of the impacts from those emissions; (3) a significance determination regarding impacts; and (4) a thorough and quantitative analysis of alternatives and avoidance and mitigation measures to reduce the project's impacts. The agency cannot lawfully approve the project until this required analysis has been completed.

IV. The DEIR Selects an Inadequate Range of Alternatives for Analysis

HFE-40

Every EIR must describe a range of alternatives to the proposed project and its location that would feasibly attain the project's basic objectives while avoiding or substantially lessening the project's significant impacts. Pub. Res. Code § 21100(b)(4); CEQA Guidelines § 15126(d). A proper analysis of alternatives is essential for the City to comply with CEQA's mandate that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code§ 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 443-45. As stated in Laurel *Heights Improvement Association v. Regents of University of California*, "[w]ithout meaningful analysis of alternatives in the DEIR, neither the courts nor the public can fulfill their proper roles in the CEQA process. . . . [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the consequences of action by their public officials." 47 Cal. 3d 376, 404 (1988). The DEIR's discussion of alternatives in the present case fails to live up to these standards.

As a preliminary matter, the DEIR's failure to disclose the extent and severity of the Project's broad-ranging impacts necessarily distorts the document's analysis of Project alternatives. As a result, the alternatives are evaluated against an inaccurate representation of the Project's impacts. Proper identification and analysis of alternatives is impossible until Project impacts are fully disclosed. Moreover, as discussed above, the document's analysis is incomplete and/or inaccurate so that it is simply not possible to conduct a comparative evaluation of the Project's and the alternatives' impacts.

HFE-41

Sound planning principles dictate that the City carefully consider alternatives in the present case because the proposed Project would be located in a designated wildlife preserve of regional and statewide importance and would result in admittedly significant impacts to wildlife movement and the use of native wildlife nursery sites. DEIR at E-21. Furthermore, the Project would result in extensive impacts related to scenic views, recreational uses, noise, and air quality. DEIR at ES-20 – ES-22. This DEIR's analysis of alternatives is insufficient under CEQA because the document

fails to consider a reasonable range of options that would reduce Project impacts. CEQA Guidelines § 15126.6(c); *Citizens of Goleta Valley*, 52 Cal.3d at 566.

The DEIR presents only two alternatives in addition to the legally required "no project" alternative. Both alternatives consolidate production activities, but one (the Consolidated Upper Colima Alternative) exacerbates impacts to wildlife movement by concentrating drilling activities in close proximity to an established wildlife tunnel. DEIR at ES-16. The other alternative (Consolidated Central Site Alternative), as with the proposed Project, would include construction of a new access road thereby impacting riparian habitat and sensitive species within it. DEIR at 5-6. As a result, these alternatives would still result in significant adverse impacts to biological resources and thus fall short of CEQA's requirement that the EIR consider "meaningful" alternatives. CEQA Guidelines § 15126.6(a), (c), (f).

HFE-42 The DEIR should have considered other feasible alternatives that would actually lessen impacts to the Preserve. The document provides no reasonable explanation as to why additional alternatives that offer features necessary to reduce the inevitable damage from the proposed Project were not proposed. Thus, the DEIR should have evaluated an alternative involving the Consolidated Central Site and providing access only from the existing Catalina Avenue. This alternative would avoid construction of a new access road and avoid two of the most sensitive areas on the Preserve: the wildlife corridor tunnel under Colima Road and the Core Habitat Zone in the northern portion of the proposed Project site. A revised document must include an evaluation of this alternative.

V. A Revised DEIR Must Be Prepared And Recirculated.

CEQA requires recirculation of a revised draft DEIR "[w]hen significant new information is added to an environmental impact report" after public review and comment on the earlier draft DEIR. Pub. Res. Code § 21092.1. The opportunity for meaningful public review of significant new information is essential "to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom." *Sutter Sensible Planning, Inc. v. Sutter County Board of Supervisors* (1981) 122 Cal.App.3d 813, 822; *City of San Jose v. Great Oaks Water Co.* (1987) 192 Cal.App.3d 1005, 1017. An agency cannot simply release a draft report "that hedges on important environmental issues while deferring a more detailed analysis to the final [EIR] that is insulated from public review." *Mountain Lion Coalition v. California Fish and Game Comm'n.* (1989) 214 Cal.App.3d 1043, 1053.

HFE-43

In order to cure the panoply of DEIR defects identified in this letter, the City must obtain substantial new information to adequately assess the proposed Project's environmental impacts, and to identify effective mitigation and alternatives capable of alleviating the Project's significant impacts. This new information will clearly necessitate recirculation. CEQA requires that the public have a meaningful opportunity to review and comment upon this significant new information in the form of a recirculated draft supplemental EIR.

Conclusion

For the foregoing reasons, Hills for Everyone urges the City to delay further consideration of the Whittier Main Oil Field Development Project unless and until the City prepares and recirculates a revised draft EIR that fully complies with CEQA and the CEQA Guidelines.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Gabriel Ross

Carmen J. Borg, AICP, Urban Planner

cc: Claire Schlotterbeck, Hills For Everyone
Andrea Gullo, Puente Hills Landfill Native Habitat Preservation Authority
Judy Tamasi, Wildlife Corridor Conservation Authority.

Attachments:

Exhibit A: California Resources Agency, 2000, "Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities."

Exhibit B: Gareth Jones, 2008, "Sensory Ecology: Noise Annoys Foraging Bats."

Exhibit C: Andrea Schaub, et al., 2008, "Foraging Bats Avoid Noise."

Exhibit D: Science Daily, 2009, "Noise Pollution Negatively Affects Woodland Bird Communities."

Exhibit E: Edward West et. al., 2008, "Noise Impacts on Birds: Assessing Take of Endangered Species."

Exhibit F: Times of India Oil, December 2010, "Oil Wells Rattle Migratory Birds at Thol."

Exhibit G: Newport Beach Community Center at the Friends of the Newport Coast Annual Meeting, excerpted slides

Exhibit H: Autumn Lyn Randle, 2007, "The Effect of Noise on Wildlife: A Literature Review."

Exhibit I: Travis Longcore et. al., 2004, "Ecological Light Pollution."

Exhibit J: V. Ramanathan and G. Carmichael, 2008, "Global and Regional Climate Changes Due to Black Carbon."

Exhibit K: CAPCOA, 2008, "CEQA and Climate Change" excerpts.

Exhibit L: California Department of Justice, 2010, "The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Leve."

Exhibit M: Governor's Office of Planning and Research, 2008, "CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review."

P:\HILLS\Whit\Whittier Oil DEIR Comments Final 12-06-10.doc

Hills for Everyone

HFE1-1	As stated in Section 4.11, Land Use and Policy Consistency Analysis, mitigation measures developed in Sections 4.2, Biological Resources, 4.3, Safety, Risk of Upset and Hazardous Materials, and Section 4.14, Recreation, would minimize impacts to adjacent and nearby properties. Specifically, these mitigation measures would minimize potential biological impacts from an oil spill and would reduce noise and vibration impacts to adjacent parcels to less than significant levels. Further, mitigation measures could offset some of the associated impacts to recreation. However, as noted in the Draft EIR, the oil spill risk and potential impacts to the resources would still be inconsistent with Land Use Element Policy 4.1. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
HFE1-2	As stated in Section 4.11, Land Use and Policy Consistency Analysis, mitigation measures would minimize impacts and provide a pathway toward a natural balance between the various resources in the proposed Project area; however, some significant impacts would remain and the proposed Project could be potentially inconsistent with Environmental Resources Management Element Policies 1.3, 3.1, and 3.2. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
HFE1-3	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with Environmental Resources Management Element Goal 3 and Noise Element Policy 2.5. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
HFE1-4	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with Environmental Resources Management Element Goal 7, Policy 7.4 and the Resource Management Plan's Biological Resources Element Goal BIO-3. However, that said, comprehensively, the Project is found to be consistent

	with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, " The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
HFE1-5	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with Environmental Resources Management Element Goal 6, Policy 6.2 and the Resource Management Plan's Visual Resources and Aesthetics Element Goal VISUAL-1. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. Within Section 4.11, the EIR preparers discuss potential incompatibility issues with the Preserve's Resource Management Plan (RMP). However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, " The proposed Project's expected

	contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
HFE1-6	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan. The CEQA Guidelines require that a Lead Agency (City Council) shall neither approve nor implement a Project as proposed unless the significant environmental impacts have been reduced to an acceptable level. An acceptable level is defined as eliminating, avoiding, or substantially lessening significant environmental effects to below a level of significance. If the Lead Agency approves the Project even though significant impacts identified in the Final EIR cannot be fully mitigated, the Lead Agency must state in writing the reasons for its action. In these circumstances, Findings and a Statement of Overriding Considerations must be included in the record of Project approval and mentioned in the Notice of Determination.
HFE1-7	The comment cites cases requiring the inclusion of an adequate Project Description for meaningful public review. The EIR preparers agree that an adequate Project Description is the foundation for being able to conduct adequate environmental review and believe that this EIR contains an adequate Project Description for that purpose. Specific concerns on the Project Description are addressed in the following, more specific comments.
HFE1-8	The comment appears to suggest that Draft EIR is required to include the Spill Prevention Plan or the Emergency Response Plan. The requirement for those and other plans is imbedded within the different mitigation measures including specific requirements that each of those plans needs to have in order to mitigate impacts. An emergency response plan would be required as part of the permitting process. Mitigation measure FP-1d, in Section 4.12 Fire Protection and Emergency Response, requires the development and submittal of an emergency response plan. It is not required for the assessment of CEQA impacts. Typically, those plans are prepared once the Project is approved and do not form part of the environmental document.
HFE1-9	The Draft EIR contains a thorough discussion of the existing baseline of environmental resources, including potential sensitive or endangered species. The Draft EIR relies on extensive and recent surveys that have been conducted of the site by the Habitat Preserve in the course of their restoration

	efforts at the site.
HFE1-10	Consistent with interpretations of CEQA used by the City of Whittier and most other lead agencies in the region, the Draft EIR treated all species listed as threatened or endangered, or formally recognized by the state as being California Species of Special Concern. In making our evaluations, the EIR biologists have considered the "special-status" taxa mentioned in comments on the Notice of Preparation for the Project. We have also reviewed numerous biological reports prepared within the Chino-Puente Hills in recent years, the California Natural Diversity Data Base, California Native Plant Society Online Inventory of Rare and Endangered Plants, Consortium of California Herbaria online inventory. Finally, we have worked closely with the Habitat Authority and its ecologists to identify all taxa of concern to be considered in the Draft EIR. At the Habitat Authority's direction, several focused biological surveys were conducted on the Project Site by LSA Associates and Glenn Lukos Associates from 2007 to 2010. None of the resources reviewed by the EIR biologists, and no input received from the Habitat Authority, suggested that bryophytes, lichens, shoulderband snails, or trapdoor spiders warrant specific consideration in this CEQA analysis. If the specific evaluation of these taxa was as central to the task of conserving biodiversity, as claimed in this comment letter, these taxa would have at least warranted *mention* in the Habitat Authority's own 2007 Resource Management Plan. Although these taxa do contribute to biodiversity, biological surveys and impact analyses considered appropriate and adequate under CEQA have typically involved the evaluation of vascular plants, vertebrates, and any butterflies or other lower taxa listed as threatened or endangered by state or federal governments (or that can otherwise "be shown to meet the criteria" specified in CEQA Section 15380). Non-listed invertebrates are sometimes evaluated, such as for projects with potential to affect roosting groves for monarch butterflies. Generally, however, CEQA analysis has stopped short of evaluating the lower taxa, in part due to a general lack of detailed knowledge about these taxa and their distributions — not only among consultants, but also among specialists. For these reasons, we do not agree with the commenter's characterization of the Draft EIR as being inadequate with respect to its focus on evaluating potential effects of Project implementation on the higher-level plants and wildlife that are recognized as having "special status" by state and/or federal agencies. Given that so little is known about the actual status and distribution of the lower taxa, and given that none of the species potentially present is listed as rare or endangered by federal or state agencies, or is recognized as a California Species of Special Concern, there is no clear basis for establishing the potential significance of any potential impacts to these taxa. If the commenters believe that such a basis exists for certain taxa possibly present on the Project Site, the procedure for establishing this is through peer-reviewed publication of their status and distribution, with recognition of their rare status by state and/or federal resource agencies — procedures well beyond the scope of CEQA analysis. Nevertheless, in the interest of providing a complete baseline and well-supported impact analysis, we have researched the known status, distribution, and habitat requirements of the taxa of concern to the commenters, and have worked with an entomologist, Dr. Emile Fiesler, to conduct a supplemental survey to search for these species. The EIR biologists have evaluated the potential of the Project to result in potentially significant impacts to any additional species that can be shown to meet the criteria specified in CEQA Section 15380.

	Of the four butterfly species identified in this comment, only the monarch is included on the Special Animals list. Nobody has observed monarchs roosting on the site, or suspects that they might do so because the site is presumably too far from the coast to provide suitable roosting habitat. A species of milkweed, *Asclepius californica*, has been recorded on the Project Site, but it is rather sparse there and could not support a "winter concentration" of monarchs. That some of the butterflies present, or potentially present, on the site are believed to be "declining" in the region does not imply that they warrant specific evaluation under CEQA. If their populations are truly of conservation concern, they should be identified as such by state or federal resource agencies and/or highlighted in relevant local planning documents, such as the Habitat Authority's 2007 Resource Management Plan. The species in question do not satisfy these criteria, and Project implementation would not impact extensive patches of host food plants for these species. Finally, the extensive restoration of degraded areas that is being proposed as part of the Project can be expected to offset any potential adverse Project effects to native invertebrate populations associated with locally native plant species.
HFE1-11	As stated in Section 4.11, Land Use and Policy Consistency Analysis, mitigation measures would minimize impacts and provide a pathway toward a natural balance between the various resources in the proposed Project area; however, some significant impacts would remain and the proposed Project could be potentially inconsistent with several goals and policies in the General Plan. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
HFE1-12	As stated in Section 4.11, Land Use and Policy Consistency Analysis, mitigation measures would minimize impacts and provide a pathway toward a natural balance between the various resources in the proposed Project area; however, some significant impacts would remain and the proposed Project could be potentially inconsistent with several goals and policies in the General Plan. However, that said, comprehensively, the Project is found to be consistent with the City of Whittier General Plan since oil and gas production is allowed under the General Plan and zoning ordinance with a Conditional Use Permit in all zoning districts (Section 18.52.030). Note that oil and gas exploration and production is allowed as a Conditional Use Permit in land designated as Open Space with the understanding that certain mitigation measures will be implemented in order to reduce the impacts to a level that is considered consistent with the goals and policies of the General Plan.
HFE1-13	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies in the Resource Management Plan. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding

	that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
HFE1-14	As stated in Section 4.11, Land Use and Policy Consistency Analysis, the proposed Project could be potentially inconsistent with several goals and policies in the Resource Management Plan. However, those potential incompatibility issues are overridden by the benefits of the restoration activities that would be undertaken as a result of the Project that would otherwise not occur. Without the approval of the Project and the lack of funding that would occur after 2013, the Preserve is unlikely to have funding that would allow continued restoration and preservation of the site, which in turn would allow the Preserve to meet the goals and objectives of the RMP. As stated in the Draft EIR, "The proposed Project's expected contributions to ongoing maintenance and improvement of the Preserve demonstrate consistency with the RMP and applicable habitat conservation plans." Finally, it could be argued that the RMP, as approved, is not directly consistent with the overarching City of Whittier General Plan for the areas within the City of Whittier that, as noted above, allows for oil and gas production activities to occur within the open space zone district. In addition, there are existing oil and gas production activities ongoing within the Preserve as part of the Applicant Sycamore Canyon oil production operations that are not described as part of the RMP. The City of Whittier is the ultimate determinant of consistency issues with the RMP regarding the oil and gas development that is part of the proposed Project within the City-owned land that is part of the Preserve.
HFE1-15	Commenter states the importance of the biological resources on the Project Site. The EIR Biological Resources Environmental Setting Section 4.2.1 describes the sensitive resources on the Preserve and describes the Preserve as a high priority for conservation and preservation.
HFE1-16	Commenter states that the biological resources section is incomplete in terms of (1) its inadequate discussion of the environmental setting; (2) the failure to accurately describe impacts to sensitive species and habitats, (3) the reliance on inadequate mitigation. Comments are repeated and presented in more detail below; responses are likewise, presented below.
HFE1-17	Commenter states that the Environmental Section is inadequate in (1) describing the network of habitats and species that interlock the different parks, preserves, and jurisdictions and (2) fails to provide the historic context of the area's ecology. 1. Wildlife movement and the importance of habitat linkages are discussed in detail in Section 4.2.1.2 under the Wildlife Movement

	and Habitat Linkage Issues section. This section discusses the importance of wildlife movement corridors in general and specifically for the Preserve and surrounding areas. Figures show graphically how all the different parks, preserves, and jurisdictions are located. 2. Although presenting the historical context of an area could aid in understanding why current conditions exist, CEQA requires an analysis of baseline conditions as they exist at the time of the Notice of Preparation. However, the Environmental Setting still provides a description of the wildlife movement issue in terms of the existing conditions and details the issues of constrictions, roadways, and habitat fragmentation, therefore providing an understanding of the regional importance and magnitude of impacts.
HFE1-18	Commenter states (1) the Draft EIR does not adequately describes the importance of the Project's site to the biodiversity of the region, and (2) the Draft EIR fails to calculate the overall biodiversity of the entire Preserve. 1. Wildlife movement and the importance of habitat linkages which have a direct effect on biodiversity of the region are discussed in Section 4.2.1.2 under the Wildlife Movement and Habitat Linkage Issues section. This section discusses the importance of wildlife movement corridors in general and specifically for the Preserve and surrounding areas. Figures show graphically how all the different parks, preserves, and jurisdictions are located. 2. A description of biological resources is typically required for the habitat within the impact area and a specific buffer area around the impacted area. Although the Proposed Project is located within the Preserve boundary, not all of the Preserve habitat would be disturbed by elements of the Project. Therefore such a wide-ranging assessment for a Project that proposes impacts to only a small fraction of the Preserve's overall area would greatly exceed the requirements of CEQA.
HFE1-19	Commenter states that biological surveys did not adequately cover the entire Preserve or area of disturbance. Surveys are typically required for the habitat suitable for the species within the impact area and a specific buffer area around the impacted area. Although the Proposed Project is located within the Preserve boundary, not all of the Preserve habitat would be disturbed by elements of the Project. Therefore such a wide-ranging assessment for a Project that proposes impacts to only a small fraction of the Preserve's overall area would greatly exceed the requirements of CEQA.
HFE1-20	Commenter states that the EIR fails to adequately describe impacts to sensitive species and describes the analysis, "with no evidentiary support, dismisses impacts to these species, stating that they have limited potential to occur or that they are widespread in the region". Impacts to non-listed sensitive species are included in the discussion in Impact BIO-1. There is evidence presented in Tables describing each of these sensitive species' habitat requirements and likelihood of being present in the Project area. This information, as described in text, is based on a review of numerous biological reports prepared within the Chino-Puente Hills in recent years, the California Natural Diversity Data Base, California Native Plant Society Online Inventory of Rare and Endangered Plants, Consortium of California Herbaria online inventory. Finally, we have worked closely with the Habitat Authority and its ecologists to identify all taxa of concern to be considered in the Draft EIR, all of which acted as support to the results of the impact discussion. .

HFE1-21	Comment states that the impact analysis failed to analyze impacts to southern California black walnut. Tables list and discuss each special status plant species including Southern California black walnut. Figures show the location of the five walnut trees observed onsite being outside the area of vegetation removal or disturbance. LSA reported that after focused surveys in 2008 and 2009 within the Project area that the Project area did not support any of the special status plant species. The impact analysis includes only those sensitive species that are present or have some potential to be present in the Project area.
HFE1-22	Commenter states that the EIR focused bat impacts to occupied maternity roosts and ignored the loss of roosting and foraging habitat. Impact BIO-4g requires a qualified bat specialist to conduct a survey for trees that could "provide *hibernacula* or nursery colony roosting habitats for bats." The loss of habitat for species that only occasionally use the area for foraging is included in the impact discussion under BIO-1: "The remaining "special status" species either have only limited potential for occurrence on the Project Site or are "California Special Animals" that are widespread in the Puente-Chino Hills and elsewhere in the region. Impacts to these species are considered to be potentially adverse, but less than significant and therefore do not require the level of mitigation proposed by the commenter.
HFE1-23	Commenter states that the EIR did not include the loss of foraging habitat and roost sites for raptors. As stated in the comment, BIO-4 does include provisions for protecting raptor nests. The loss of habitat for species that are known to use the area that will be disturbed is included in the impact discussion under the general discussion in Section 4.2.4: "Additional impacts to biological resources, including new and increased usage of the roads and disturbances from noise, lighting, and increased human presence, would also cause avoidance of an area and would affect movement." In addition, most of the raptor species expected or known on to forage over the Project Site are common, widespread, and/or have large home ranges. Due to the small acreage of habitat loss in relation to the available foraging habitat impacts to these species are considered to be potentially adverse, but less than significant and therefore do not require the level of mitigation proposed by the commenter.
HFE1-24	The commenter suggests that high levels of vibration could impacts to wildlife species. To evaluate this potential impact more thoroughly, the EIR biologists requested more detailed information on the vibrations expected from Project operations. Vibrations associated with drilling would vary over time. The highest vibration levels experienced by wildlife would most likely occur during the initial portion of drilling a well, during approximately the first 100 feet of drilling, and this would last a matter of hours when they are drilling close to the surface. The actual peak vibration levels during this period would be only for a sum total of a matter of minutes. One well would be drilled per month. Therefore, while it is possible that some wildlife in the vicinity of the drilling operation, such as bobcats, would experience anxiety due to vibrations produced during high-vibration periods, those periods would be rare and relatively short-lived, lasting for only a period of hours per month. The typical response of most wildlife to a short-term, infrequent event, is short term avoidance, but if the abnormal condition (such as noise and vibration) ceases, wildlife species typically return to their normal behavior. The EIR biologists conclude that this level of impact to wildlife from vibrations would be adverse, but less than significant.
HFE1-25	The text provided in the comment is taken out of context. The purpose of the following text "(2) there would be impacts to preserved habitats that lie outside of limits

	of disturbance from "edge effects" that can't be completely eliminated through mitigation; (3) there would be temporal losses that would occur before the restoration efforts provide functioning habitat; and (4) ecological systems that are already under stress from surrounding intensive development exhibit a compromised capacity to rebound from disruptive processes, such as fire and human intrusion" was the argument for requiring more than a 1:1 replacement ratio for sensitive habitats. These issues are reduced by increasing the replacement ratio to 3:1.
HFE1-26	The comment requests discussion of long-term impacts to habitat from climate change as part of the Residual Impacts discussion for each impact. CEQA does require discussion of climatic change as part of impact analysis. The Project is expected to continue the use of fossil fuels which is known to have climactic effects. However, the incremental change to climate conditions resulting from the implementation of the Proposed Project which would in turn, impact the health or abundance of those specific sensitive habitat types on the Project site (Impact BIO-1 and 2) would be so unsubstantial as to not warrant discussion as part of the potential impacts resulting from this Project. CEQA Guidelines and the recent OPAN atural Resource Agency amendments to the CEQA Guidelines make changes to the guidelines to address climate change in a CEQA document. Specifically, they require a quantitative assessment of GHG emissions, as well as requirements on lead agencies to analyze the effects of bringing development to an area that is susceptible to hazards such as flooding and wildfire, both as such hazards currently exist or may occur in the future. The revised guidelines state that an analysis may not be relevant if the potential hazard would likely occur sometime after the projected life of the Project (i.e., if sea-level projections only Project changes 50 years in the future, a five-year Project may not be affected by such changes). Additionally, the degree of analysis should correspond to the probability of the potential hazard. While there may be consensus that temperatures may rise, but the magnitude of the increase is not known with any degree of certainty, effects associated with temperature rise would not need to be examined.
HFE1-27	The EIR does not dismiss the indirect impacts resulting from noise, vibration, and pollution as stated in the comment. The EIR states in the general discussion of impacts in Section 4.2.4: Additional impacts to biological resources, including new and increased usage of the roads and disturbances from noise, lighting, and increased human presence, would also cause avoidance of an area and would affect movement. It also states in the discussion of Impact BIO-4: "During the 30-year life of the Project, levels of noise, light, human presence, and vehicle traffic would increase in all parts of the Project Site, including areas that serve as nursery sites and that have been purposefully set aside for the purpose of conservation of natural communities and their constituent species. These represent potentially significant adverse effects upon wildlife populations in the Preserve." The commenter raises questions about the potential for increased noise to

	cause wildlife to avoid the area around the proposed Project area. In response to this and other similar comments, the EIR biologists have re-evaluated the issue, including review of the following articles from the scientific literature: • Barber, J. R., K. R. Crooks, and K. M. Fristrup. 2009. The costs of chronic noise exposure for terrestrial organisms. Trends in Ecology and Evolution 25:180-189. • Fuzessery, Z. M., P. Buttenhoff, B. Andrews, and J. M. Kennedy. 1993. Passive sound localization of prey by the pallid bat (*Antrozous p. pallidus*). Journal of Comparative Physiology A 171:767-777. • Dooling, R. J., and A. N. Popper. 2007. The Effects of Highway Noise on Birds. Report prepared by Environmental BioAcoustics LLC for The California Department of Transportation, Division of Environmental Analysis, Sacramento, CA. http://www.caltrans.ca.gov/hq/env/bio/files/caltrans_birds_10-7-2007b.pdf • Bayne, E. M., L. Habib, and S. Boutin. 2008. Impacts of chronic anthropogenic noise from energy-sector activity on abundance of songbirds in the boreal forest. Conservation Biology 22:1186-1193. • Schaub, A., J. Ostwald, and B. M. Siemers. 2008. Foraging bats avoid noise. Journal of Experimental Biology 211:3174-3180. • Francis, C. D., C. P. Ortega, and A. Cruz. 2009. Noise pollution changes avian communities and species interactions. Current Biology 19:1415-1419. As summarized by Barber and colleagues, "Chronic noise exposure is widespread. Taken individually, many of the papers cited here offer suggestive but inconclusive evidence that masking is substantially altering many ecosystems. Taken collectively, the preponderance of evidence argues for immediate action to manage noise in protected natural areas." The evaluation of potential noise impacts upon wildlife is confounded by varying and oppositional responses of different species to chronic noise. For example, the study by Francis and colleagues, listed above, found that "noise can have an indirect positive effect for individuals nesting in noisy areas" resulting from a decrease in nest predation due to avoidance of noisy areas by the Western Scrub-Jay, a major nest-predator. Nevertheless, their study also found that most bird species responded negatively to noise (e.g., three species nested only in loud sites and 14 species nested only in quiet, control sites). Their study provided "the strongest evidence to date that noise negatively influences bird populations and communities, and acoustic masking may be a dominant mechanism precluding many birds from breeding in noisy habitats." Another important study, by Bayne and colleagues, found that areas near noiseless energy facilities had a total passerine density 1.5 times higher than areas near noise-producing energy sites. Among bats, Fuzessery et al. found that the pallid bat relies upon prey-generated movement sounds to localize its terrestrial prey. The later study by Schaub and colleagues, which focused on another gleaning bat, the greater mouse-eared bat, concluded, "Our experimental data suggest that foraging areas very close to highways and presumably also to other sources of intense, broadband noise are degraded in their suitability as foraging areas for such 'passive listening' bats." In Irvine, Orange County, LSA Associates conducted noise level surveys in

	the Bonita Reservoir wildlife habitat area during each year from 1996 through 2000 (LSA Associates, Inc. 2001. Final Report on Bonita Canyon Road Wildlife Studies. Report dated 19 November 2001 prepared for the San Joaquin Hills Transportation Corridor Agency, Irvine, CA.), concluding that "[California] Gnatcatchers can live and reproduce successfully in close proximity to both Bonita Canyon Road and the San Joaquin Hills Transportation Corridor" (p. 59). The same LSA report found: > Although it is difficult to directly relate the effects of noise on breeding birds, no adverse effects were observed during periods of noise levels higher than 60dBA Leq (i.e., during periods of construction activity) as evidenced by the number of California Gnatcatchers and least Bell's vireos remaining in this area. In fact, in 2000, a least Bell's vireo pair successfully nested in the portion of Bonita Reservoir that was nearest to the construction activity (p. 17). The following summary is contained in the Birds of North America species account for the California Gnatcatcher (Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher [*Polioptila californica*]. The Birds of North America Online [A. Poole, ed.]. Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/574): > Loud construction noise also seems to have minimal effect. Successful nests located 100 m from pile driver (Chambers Group, Inc. 1995. Gnatcatcher monitoring report. Unpubl. report. Prepared for Sverdrup Corp. Irvine, CA.), and <5 m from 2 dirt roads regularly traveled by heavy earth-moving equipment (R. A. Erickson unpubl., D.R. Bontrager). Of 91 nests found at heavily used state park, 13% were <3 m from paved roads or trails; no evidence that such nests failed more frequently than those in less disturbed sites (Miner, K. L., A. L. Wolf, and R. L. Hirsch. 1998. Use of restored coastal sage scrub habitat by California Gnatcatchers in a park setting. West. Birds 29:439-446.). Noise levels below the level of 60 dBA are not expected to be adverse. The limited area where levels are expected to increase to 60-70 dBA may be avoided by the most sound-sensitive species, such as the pallid bat. The Draft EIR, "there would be impacts to preserved habitats that lie outside of limits of disturbance from 'edge effects' that can't be completely eliminated through mitigation." As stated in the analysis of cumulative impacts, "The cumulative projects (see Section 3.0, Cumulative Projects Description) will result in increased infill of open areas, increased human presence, and temporary and permanent loss of habitat in the general area that is already under extreme pressure from surrounding residential and urban areas." The same analysis found that the Project's contributions to cumulatively considerable biological impacts are deemed less than significant with mitigation. After consideration of all relevant information, including the additional data and interpretations provided in this and other comment letters on the Draft EIR, this remains the opinion of the EIR biologists. Nevertheless, the provision of additional

	feasible mitigation could help to alleviate a portion of the "extreme pressure" on wildlife populations that is occurring due to existing human actions in the local area. Comment HA-15 in this letter notes that, in a recent tracking study, bobcats were not found in apparently suitable riparian habitat near the existing the Applicant Oil drilling pad in lower Sycamore Canyon, approximately 3.5 miles northwest of the Project Site. Unlike the drilling operation currently proposed, that existing drilling operation does not include any sound mitigations, and it is much noisier than what is being proposed in the La Cañada Verde watershed. Therefore, one additional feasible measure available to mitigate the proposed Project's contribution to ongoing adverse effects of oil drilling upon biological resources in the Whittier Hills is to implement noise mitigations (i.e., Mitigation Measures in the Noise Section of the Draft EIR) at the existing the Applicant Oil drilling operation in lower Sycamore Canyon. This additional noise mitigation will reduce ongoing adverse effects of noise from oil drilling on wildlife populations in the Whittier Hills. Mitigation measure BIO-4a was modified and the residual impact discussion of impact BIO-4was updated in the Final EIR. It is the conclusion of the EIR biologists that the Project's noise impacts upon wildlife populations will be adverse, but less than significant after mitigation.
HFE1-28	The commenter states that the EIR identification and analysis of mitigation measures are inadequate. Specific examples are described below with specific responses.
HFE1-29	The Draft EIR has not deferred mitigation as stated in comment. The mitigation that is described in Impact BIO-3 references mitigation described in Section 4.3, Safety, Risk of Upset and Hazardous Materials, and Section 4.8, Hydrology and Water Resources limits the potential for spills and subsequent impacts to wildlife and other biological resources. Mitigation developed in Section 4.8 includes secondary containment around tanks; design of retention basins; Spill Prevention, Control and Countermeasure Plan; a Pipeline Management Plan; and the requirement of an Emergency Response Action Plan, which would limit the potential for onsite spills and associated significant impacts. The contents of the Emergency Response Action Plan required by mitigation measure BIO-3 include details of techniques to use in specific sensitive habitats, restoration efforts, and approval process by the Habitat Authority and the City.
HFE1-30	Commenter states that the Emergency Response Action Plan would do nothing to mitigate the loss of wildlife. The most effective mitigation is prevention or avoidance of impact. Mitigation measures described in Section 4.3, Safety, Risk of Upset and Hazardous Materials, and Section 4.8, Hydrology and Water Resources would reduce impacts to wildlife and other biological resources. The purpose of the mitigation described in mitigation measure BIO-3 would be providing guidelines for spill cleanup in case a spill still occurred after all of the mitigation described above was implemented. The Emergency Response Plan would further mitigate by avoidance by identifying methods and techniques for spill responders that would avoid causing larger impacts to sensitive resources.
HFE1-31	The commenter states that the EIR ignores impacts to non-breeding raptors and migratory birds and special status bats and does nothing to protect these species during the non-breeding season. The mitigation proposed for impacts

	to biological resources, including habitat replacement (BIO-1 and 2); minimizing noise impacts (BIO-4a); designing Project lighting to be shielded and directed away from open space areas (BIO-4b); reducing speed limits and night driving (BIO-4c); installing native screening around the existing wildlife corridors (BIO-4h); requiring a biological monitor onsite during ground disturbance activities to ensure protection measures are being implemented (BIO-4k); and implementing a biological resources training program (BIO-4l) will all reduce impacts raptors, migratory birds, and bat species.
HFE1-32	The comment provided is not specifically applicable to the current proposed Project and, therefore, does not require a response.
HFE1-33	The Draft EIR followed the guidelines published by the CARB and the Federal EPA in developing GHG emissions estimates. The SCAQMD thresholds were utilized to estimate the levels of significance associated with GHG emissions and to prescribe mitigation measures.
HFE1-34	Mitigation measure AQ-4 related to GHG mitigation has been expanded and additional text has been added requiring tracking and reporting of GHG emission levels and, if the level exceeds the SCAQMD thresholds, that a reduction program be implemented thereby reducing the emissions levels below the threshold. A number of program elements have also been added, including purchasing offsets from the California Climate Reserve, with an emphasis on on-site and local projects. This program is not deferral of mitigation as the Draft EIR identifies the impacts (significant and unavoidable) and implementation of the program would not change that determination of the level of impact and it prescribes measures to implement if the program identifies GHG emissions exceeding the thresholds.
HFE1-35	As stated in Section 3.1, Boundary of Cumulative Projects Study Area, the cumulative impact study area includes the immediate vicinity surrounding the Project Site and the proposed crude and gas pipelines in the City of Whittier and the unincorporated Los Angeles County community of South Whittier. Greenhouse gas emissions would have cumulative impacts well beyond the region, and this analysis will consider them relative to both regional and statewide emissions. Under risk of upset conditions and for impacts involving biological resources, geology, air quality, noise, traffic, and recreation, the cumulative impact study area would extend beyond that region to include the communities of Hacienda Heights, Rowland Heights, La Habra Heights, La Habra, and La Mirada. That said, cumulative impacts of the proposed Project will be considered by decision makers in their review of the Project.
HFE1-36	As stated in Section 4.2.6, Cumulative Impacts and Mitigation Measures, the La Habra Heights Trail Connectors Plan and Southern California Edison's Tehachapi Renewable Transmission Project have the potential to contribute to cumulatively considerable adverse effects upon biological resources in the local area, including increasing pressures on general wildlife movement in the area. Mitigation has been added to Section 4.2, Biological Resources, to ensure that construction activities do not overlap. The mitigation measures identified in the EIR are designed to bolster the ecological resilience of the Preserve in the Project vicinity, counteracting the adverse effects of the proposed Project, both considered alone and in the context of contributions to cumulatively considerable impacts of other planned Projects. The mitigation program specified in the EIR effectively addresses the anticipated effects of the proposed Project in the context of past and planned future projects in the Project vicinity, and therefore the Project's contributions to cumulatively considerable biological impacts are deemed

	less than significant with mitigation.
HFE1-37	The analysis does consider the cumulative impacts of the proposed Project in combination with other study area projects to include those with potential biological impacts.
HFE1-38	CEQA Guidelines and the recent OPAN atural Resource Agency amendments to the CEQA Guidelines make changes to the guidelines to address climate change in a CEQA document. Specifically, they require a quantitative assessment of GHG emissions, as well as requirements on lead agencies to analyze the effects of bringing development to an area that is susceptible to hazards such as flooding and wildfire, both as such hazards currently exist or may occur in the future. The revised guidelines state that an analysis may not be relevant if the potential hazard would likely occur sometime after the projected life of the Project (i.e., if sea-level projections only Project changes 50 years in the future, a five-year Project may not be affected by such changes). Additionally, the degree of analysis should correspond to the probability of the potential hazard. While there may be consensus that temperatures may rise, but the magnitude of the increase is not known with any degree of certainty, effects associated with temperature rise would not need to be examined. In general, the amendments focus on a Project's potential incremental contribution of GHGs rather than on the potential effect itself. For the proposed Project and alternatives, the facilities would not be located within a coastal zone, would not be impacted by sea level rise, and the location within a high hazard fire zone has already been analyzed in Section 4.12, Fire Protection and Emergency Response. Section 4.1, Air Quality, addresses GHG emissions and quantifies the Project contribution, utilizing thresholds as defined by the South Coast Air Quality Management District to determine significance and recommends mitigation measures to address GHG emissions reductions. In addition, as stated in the comment, ALL air emissions are cumulative impacts, almost by definition, but in general, air quality impacts of a Project are not discussed under the cumulative section. They are discussed in the impacts section. Cumulative impacts of GHG are determined to be less than significant if they fall below the South Coast Air Quality Management District prescribed threshold values.
HFE1-39	See response to comment HFE1-38 in regards to cumulative impacts analysis. Mitigation measure AQ-4 related to GHG mitigation has been expanded and additional text has been added requiring tracking and reporting of GHG emission levels and, if the level exceeds the South Coast Air Quality Management District threshold, that a reduction program be implemented thereby reducing the emissions levels below the threshold. A number of program elements have also been added, including purchasing offsets from the California Climate Reserve, with an emphasis on on-site and local projects.
HFE1-40	The EIR preparers disagree with the contention that the Draft EIR does not consider a reasonable range of alternatives. In fact, the Draft EIR contains a number of alternatives that were analyzed and in some cases discarded from further analysis because of infeasibility, inability to meet Project objectives or because they were unable to lessen the level of impacts presented under the proposed Project. CEQA Section 15126.6e states:

	"An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible."
HFE1-41	Please see response to comment HFE1-40 above. In addition, the comment is unclear as to what aspects of the alternatives analysis are insufficient or what additional alternatives should be considered in the Draft EIR.
HFE1-42	Additional information has been added in reference to the use of Catalina Ave as an alternative throughout the life of the Project. Exclusive use of Catalina Avenue is considered under the proposed Project for the testing and exploratory phase of the Project, and in limited fashion for the construction and operation phases of the Project. The alternative of utilizing Catalina is screened out for further analysis because of significant and unavoidable impacts related to traffic during the construction phase of the Project. However, additional information and analysis is included in the Final EIR to clarify the impacts that would occur as a result of the use of Catalina Avenue for the various phases of the Project. In addition, it is possible that decision makers would consider using Catalina Avenue as the preferred Project for all phases and sufficient information is included in the EIR to provide the environmental impact analysis for that alternative.
HFE1-43	The Final EIR does not include significant new information that would require recirculation as stated in the comment.