



Whittier Main Oil Field Development Project Public Draft EIR Workshop

Public Draft EIR Workshop
June 30, 2011

Presentation by:
Marine Research Specialists
(EIR Consultant)

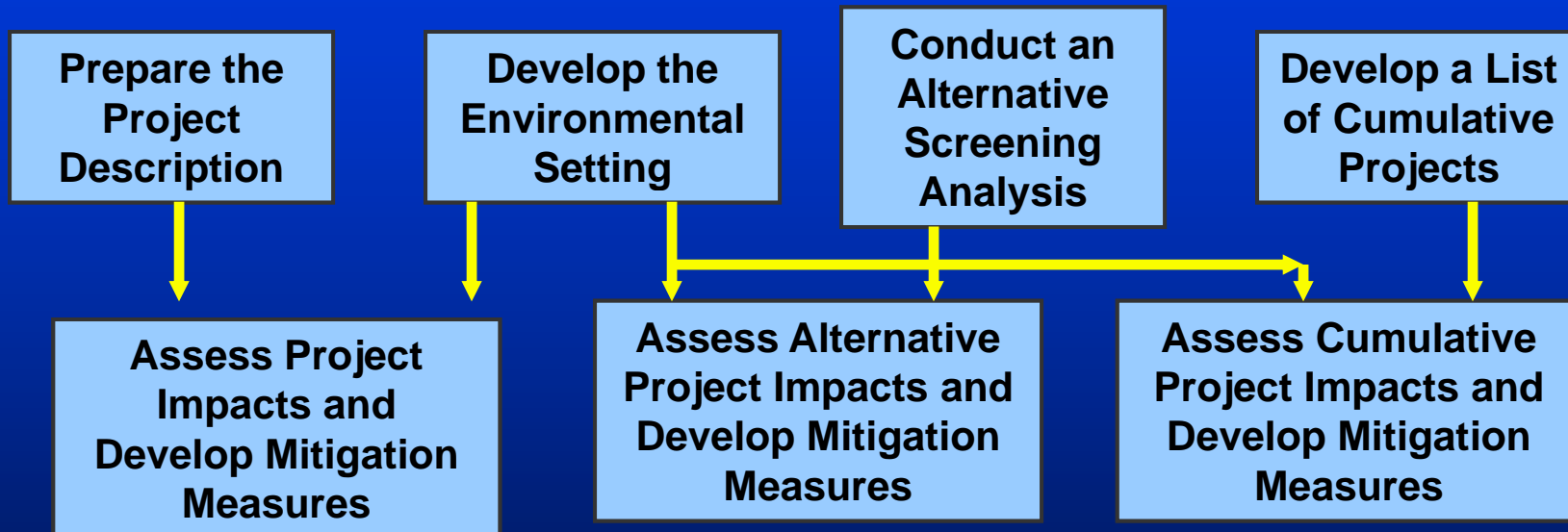
This presentation will cover various aspects of the Whittier Main Oil Field Development Project DEIR.

- Purpose of the EIR
- Approach to the EIR
- EIR Contents
- Overview of the Proposed Project
- EIR Issue Areas
- Impacts and Mitigation Measures
- Alternatives
- Appendices
- EIR Schedule and Public Participation
- Question and Answer Session

The EIR is an informational document for the public and decision makers to use as part of the decisions regarding the Matrix Whittier Hills Project.

- The EIR provides detailed information on the existing baseline at the Project Site.
- The EIR identifies and assesses the environmental impacts of the proposed activities.
- The EIR provides mitigation measures to reduce environmental impacts.
- The EIR identifies alternatives and selects the environmentally superior alternative.

The basic steps used to assess the environmental impacts of the project included the following:



The DEIR has been broken down into the following chapters:

- Executive Summary
- Impact Summary Tables
- Introduction
- Project Description
- Cumulative Projects Description
- Environmental Analysis and Mitigation Measures
- Alternatives Analysis--Environmentally Superior Alternative
- Mitigation Monitoring Program
- Appendices

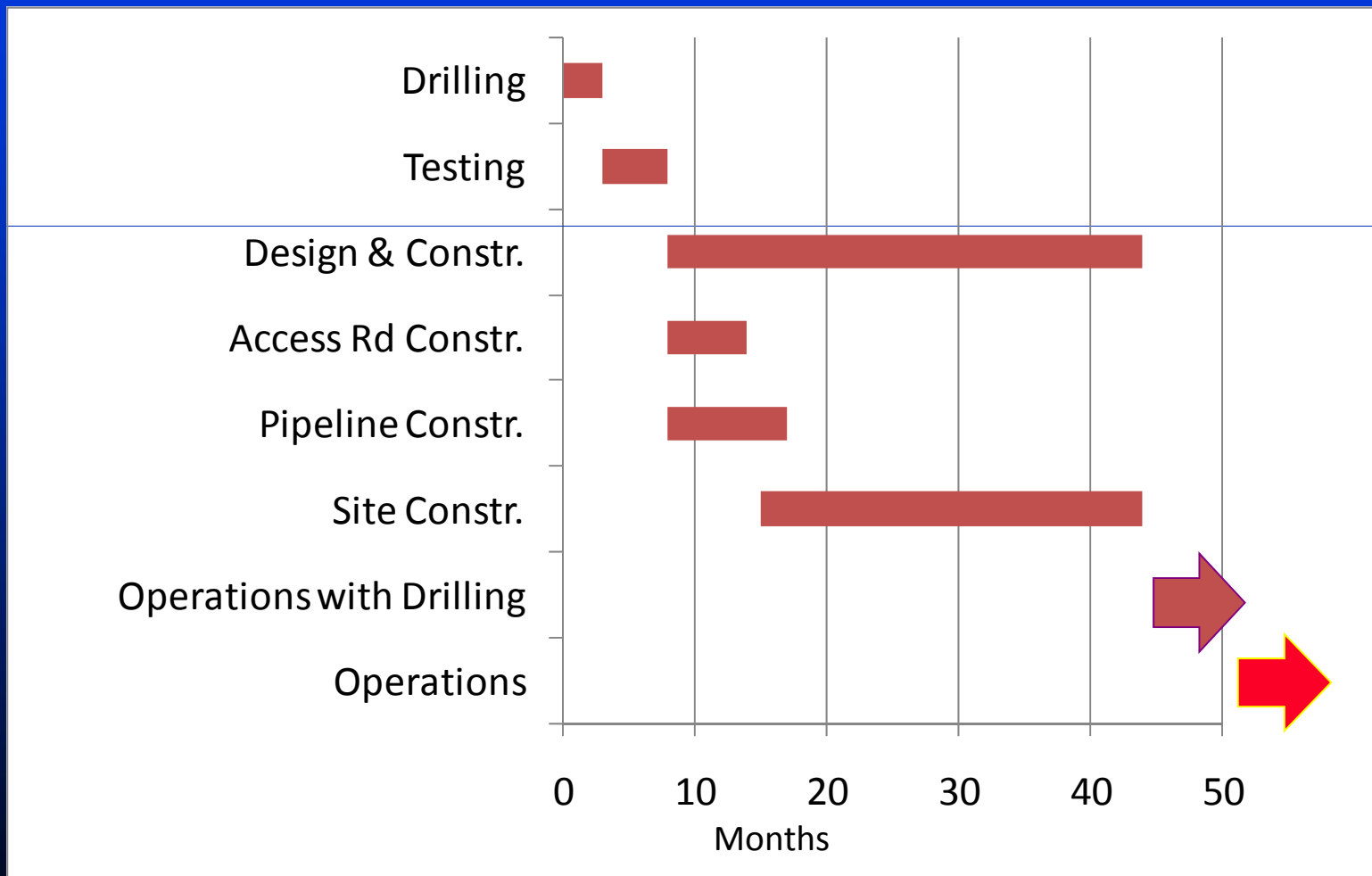
Several studies were conducted to establish the environmental baseline in and around the oil field.

- Baseline noise surveys
- Baseline biological resource surveys
- Baseline visual assessment
- Baseline traffic studies
- Baseline geological assessment
- Baseline cultural surveys

Proposed Project provided by Matrix

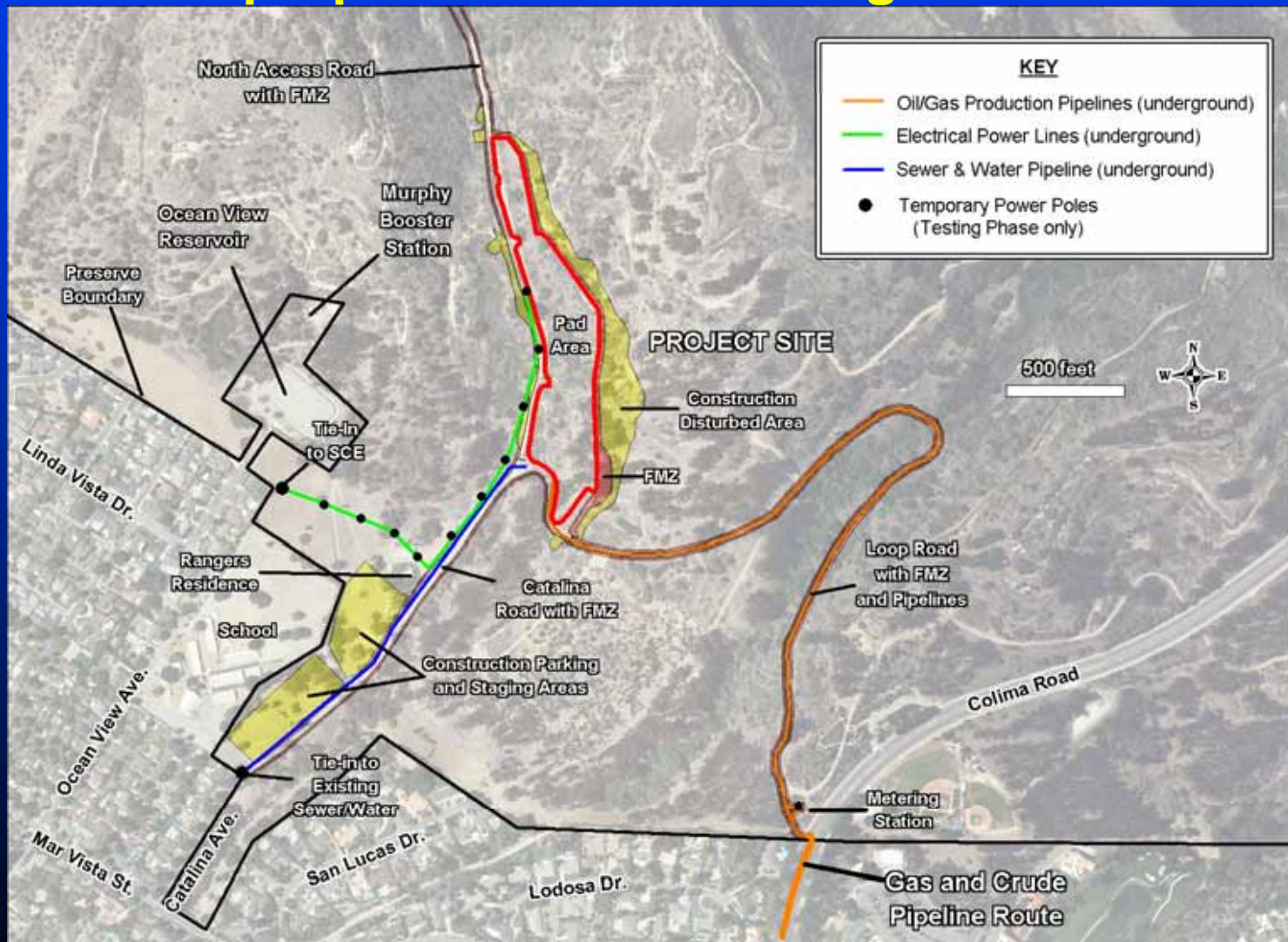
- Three Project Phases
- Drilling and Testing Phase
 - Drill Three wells - 3 months
 - Test wells – 4 months
 - Truck transportation – 7 months
- Design and Construction Phase – 2 years
 - Well Pad
 - Processing Facilities – 2 years
 - Oil and Gas Pipelines – 9 months
- Operations and Maintenance Phase
 - Up to 57 wells (49 production, 8 reinjection), 5 years
 - Up to 3 redrills per year

Project Schedule



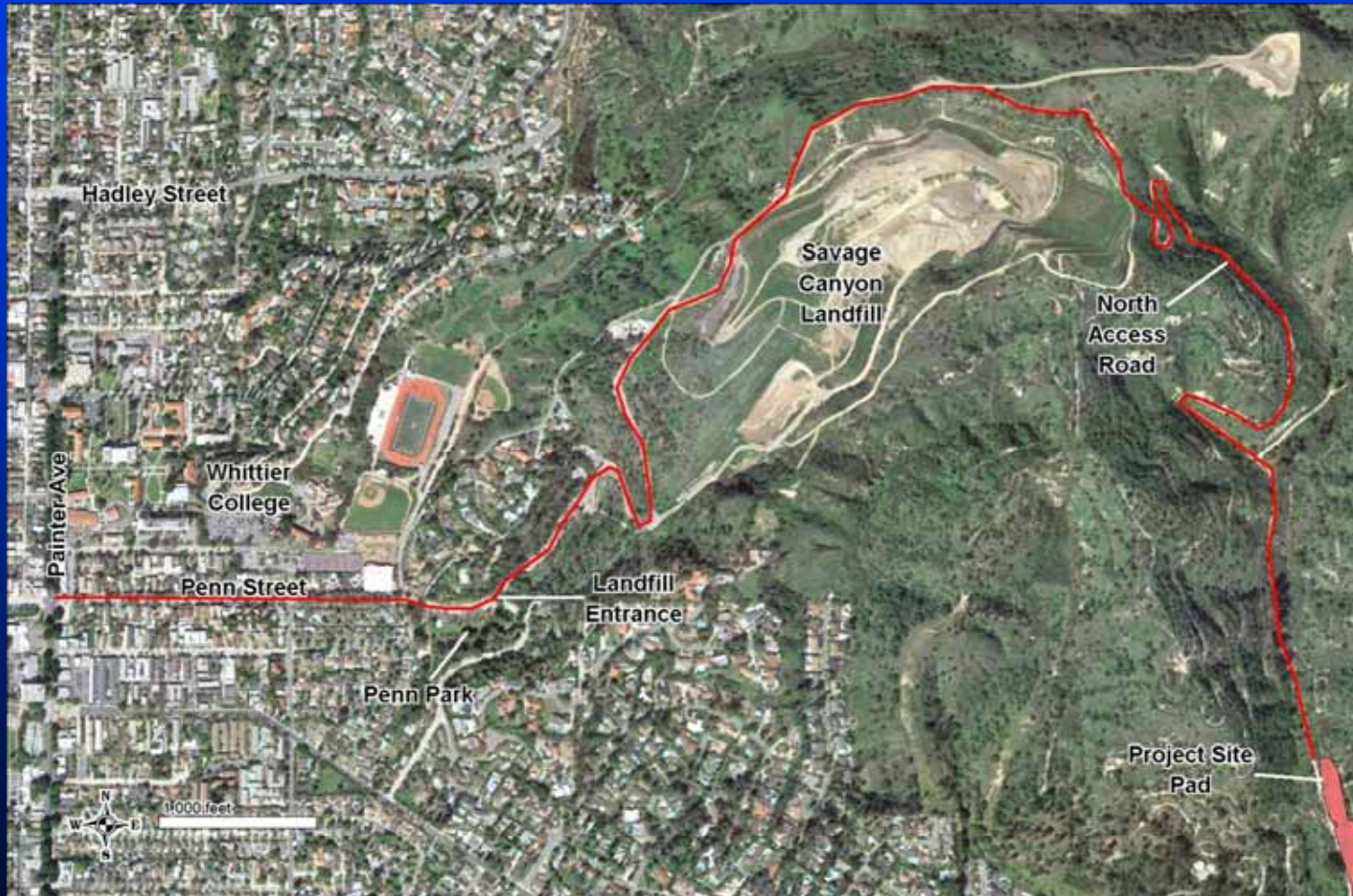
Whittier Main Oil Field EIR

Location of proposed facilities – Page 2-14



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North Access Road and Penn Street – Page 2-16



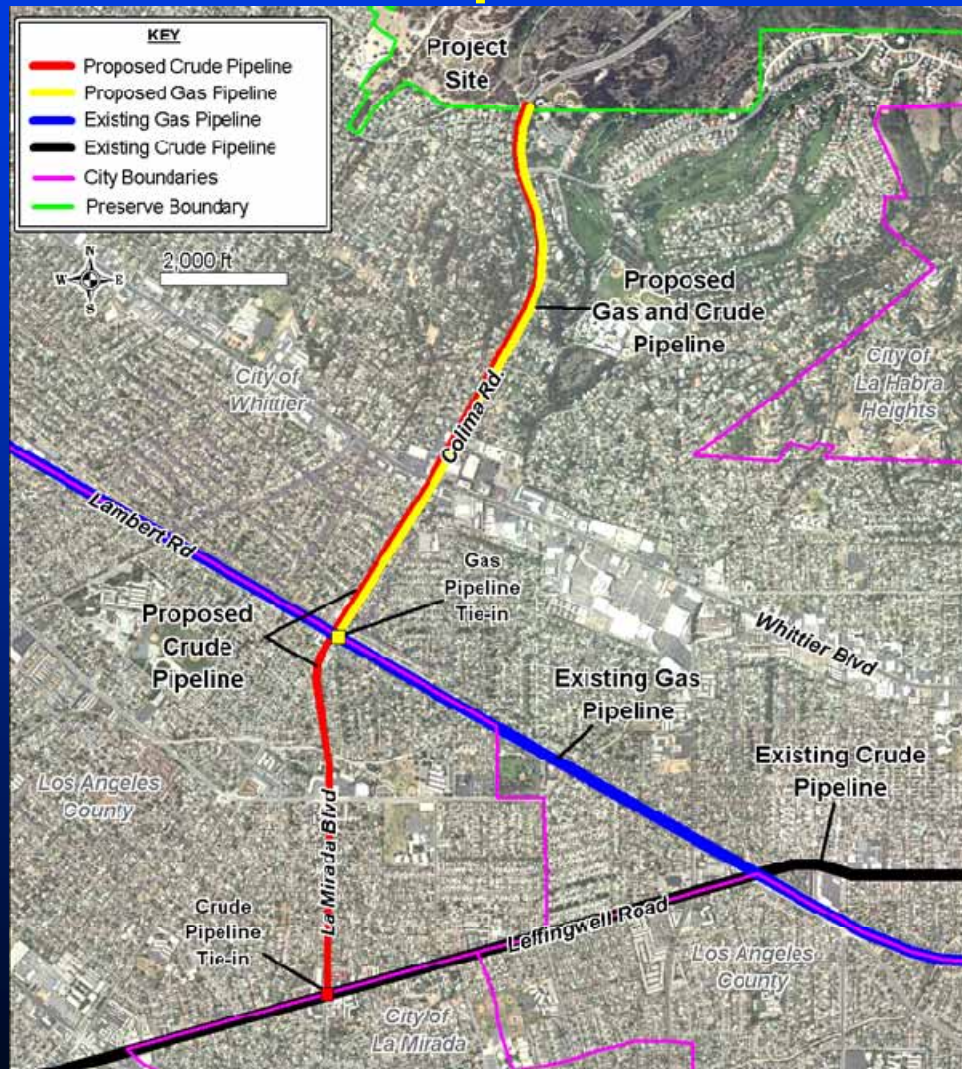
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Summary of Proposed Project – Page 2-13

Parameter	Value
Crude oil production	Up to 10,000 bpd
Natural gas production	Up to 6 million cubic feet per day
Produced water injection	Up to 7,200 bpd
Maximum number of wells	60
Number of production wells	Up to 52; all at the Project Site
Number of injection wells	Up to 8; all at the Project Site
NGL production	Up to 70 bpd, mixed with crude oil
Pipeline length and tie-in, gas	1.8 miles, Colima Road to Lambert
Pipeline length and tie in, crude	2.8 miles, Colima Road to La Mirada to Leffingwell Avenue
Water use, during construction	2,000 gallons per day during grading and earthmoving Up to 10,000 gallons per day during pipeline installation 1,000 gallons per month during facility construction
Water use, during drilling	Up to 4,500 gallons per day
Water use, during operations and maintenance	Up to 1,300 gallons per day
Electrical use, operations	3,700 kW peak, 2,500 kW average
Well workovers	Up to 52 per year
Well re-drills, peak	Up to 3 per year

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Proposed Oil and Gas Pipelines



Summary of Proposed Project Traffic

Round Trips (Peak/Average)

➤ Test Drilling	40/27 (20/7 trucks)
➤ Testing	12 (7 trucks)
➤ Construction: Access Road	30/11 (20/1 trucks)
➤ Construction: Grading	84 (79 trucks)
➤ Construction: Site	69/51 (29/11 trucks)
➤ Operations	28/24 (6/2 trucks)

The following issue areas were evaluated in the EIR:

- Air Quality
- Biological Resources
- Safety/Risk of Upset
- Geological Resources
- Noise and Vibration
- Aesthetics/Visual Resources
- Transportation/Circulation
- Hydrology/Water Resources
- Cultural Resources
- Wastewater
- Land Use and Policy Consistency Analysis
- Fire Protection/Emergency Response
- Public Services/Utilities
- Recreation
- Energy/Mineral Resources
- Environmental Justice

Throughout the DEIR, impacts were classified using the following system:

- Significant and Unavoidable Impacts
 - Impacts that may not be fully mitigated to less than significant levels
- Less Than Significant With Mitigation Impacts
 - Significant adverse impacts that can be mitigated to insignificance
- Less Than Significant Impacts
 - Adverse but insignificant impacts
- Beneficial Impacts

Significant and Unavoidable Impacts were found in the following issue areas:

- Air Quality – Construction emissions and GHG emissions
- Aesthetic, Land Use & Recreation – View of drilling rig
- Hydrology – Potential oil spills

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View of Drilling Rig from Deer Loop Trail – Page 4.6-18



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View of Drilling Rig from Catalina Avenue – Page 4.6-16

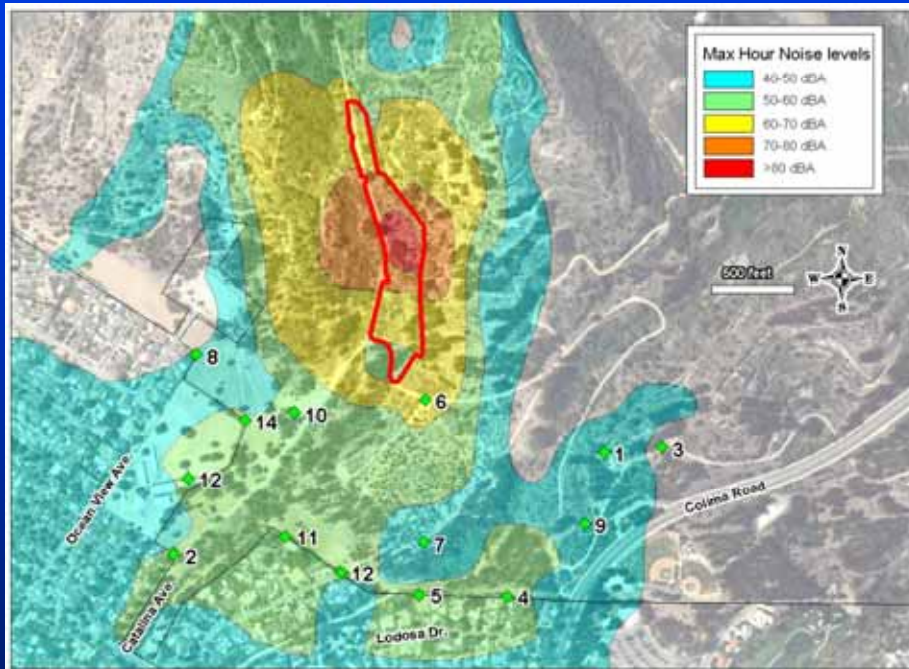


Mitigation Measures Proposed in the DEIR to Reduce Significant Impacts

- Over 100 mitigation measures proposed, including:
- Noise measures: sound walls; nighttime “quiet mode”; noise blankets; and monitoring
- Air measures: EPA Tier 3-certified engines; fugitive dust plan; GHG Plan
- Biology measures: habitat replacement; limit traffic speed; construction outside the songbird breeding season; monitoring for other birds; bat protection measures
- Risk measures: leak detection; gas pipeline shutoff valves
- Visual measures: landscaping; painting; light screening
- Fire measures: sufficient firewater supplies; community alert system; fire clearance
- Water measures: install a leak detection system for crude pipelines; berms around tanks

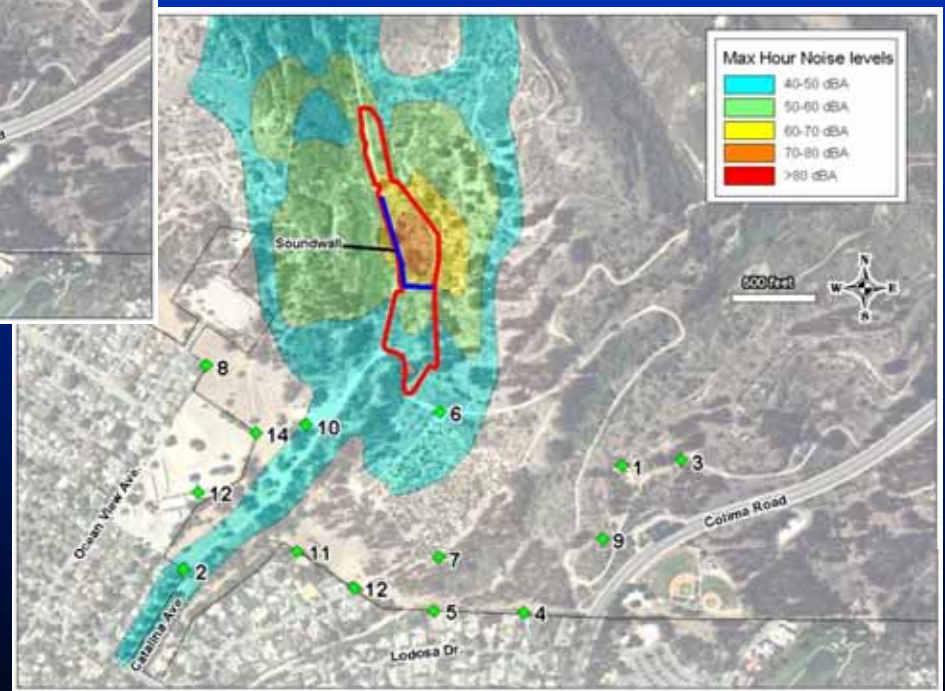
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Drilling Noise Contours – Pages 4.5-30 and 4.5-36

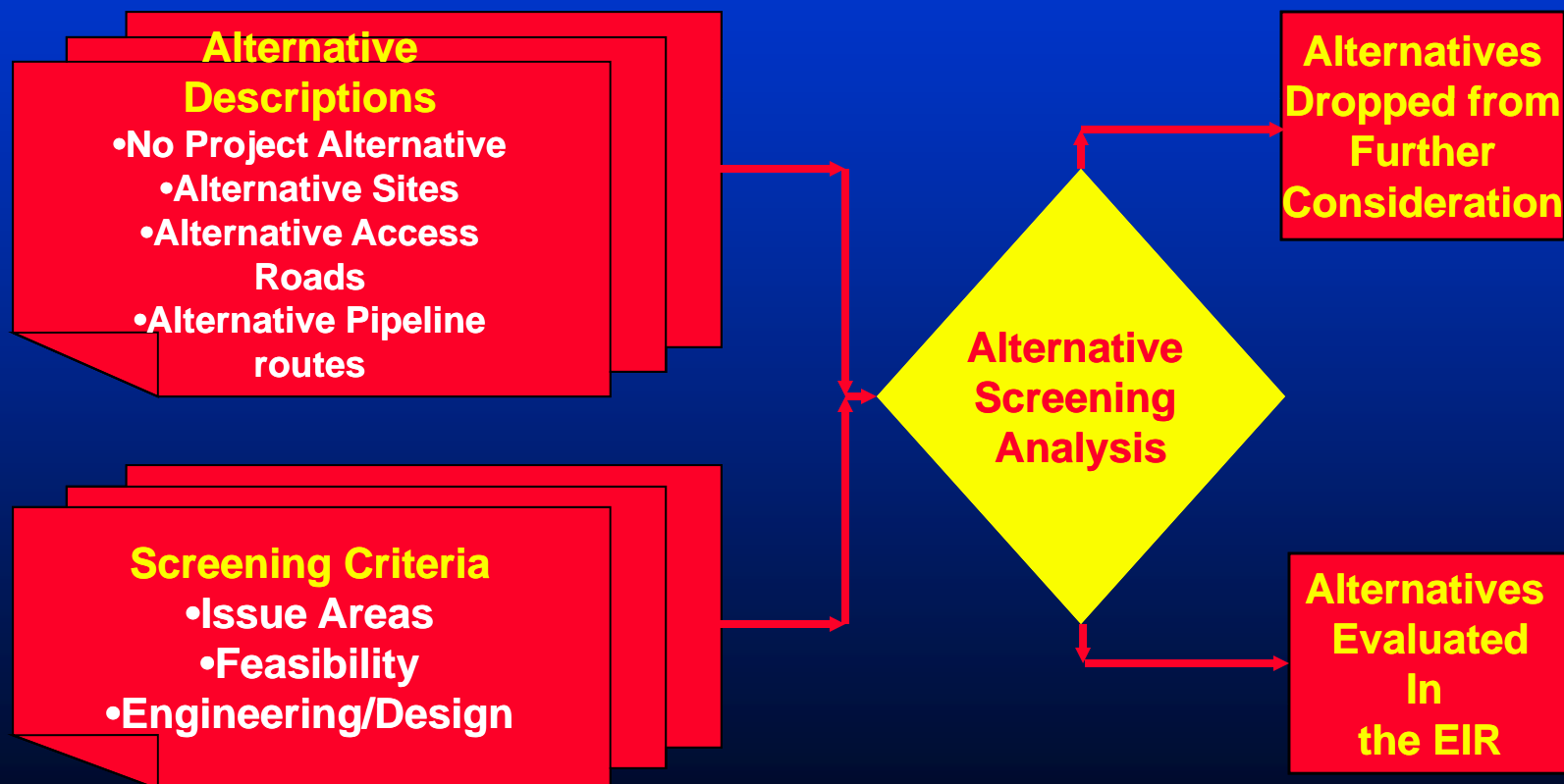


With Mitigation

No Mitigation

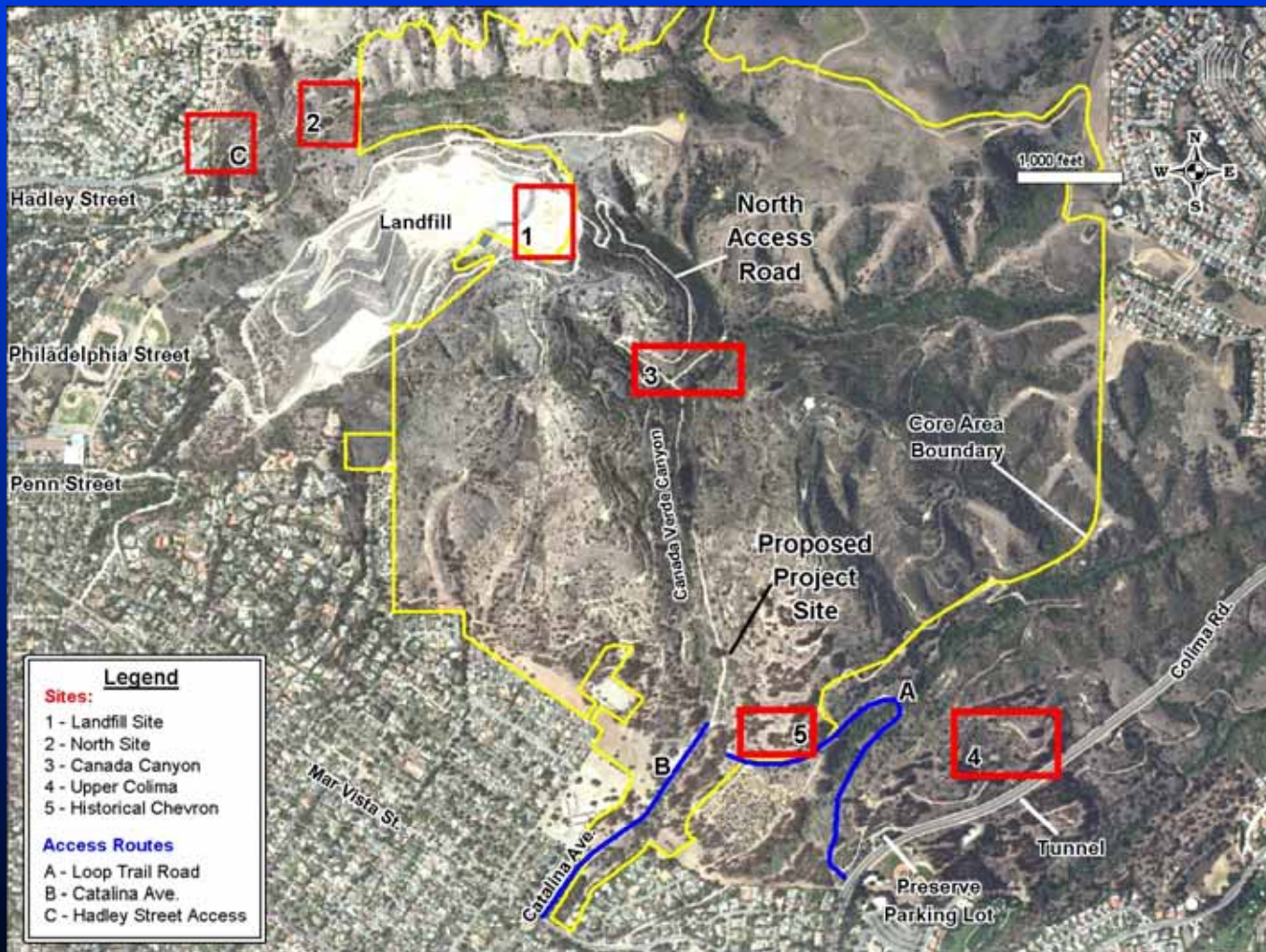


The EIR used an alternatives analysis to evaluate a range of alternatives to the project.



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Location of Alternative Sites and Access Roads Page 5-4



Alternatives

- No Project Alternative
- North Site
- Upper Canada Canyon Consolidated Site Alternative
- Upper Colima Road Consolidated Site Alternative
- Historical Chevron Processing Facility Site Alternative
- Loop Trail Road Access Alternative
- Exclusive Catalina Avenue Access Alternative
- Hadley Street Access Alternative

Alternatives Impact Comparison – Page 6-54

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, reduction of Landfill life			
Number of Significant Impacts	6	6	8

Shaded = significant impact that cannot be mitigated to less than significant

Environmentally Superior Alternative

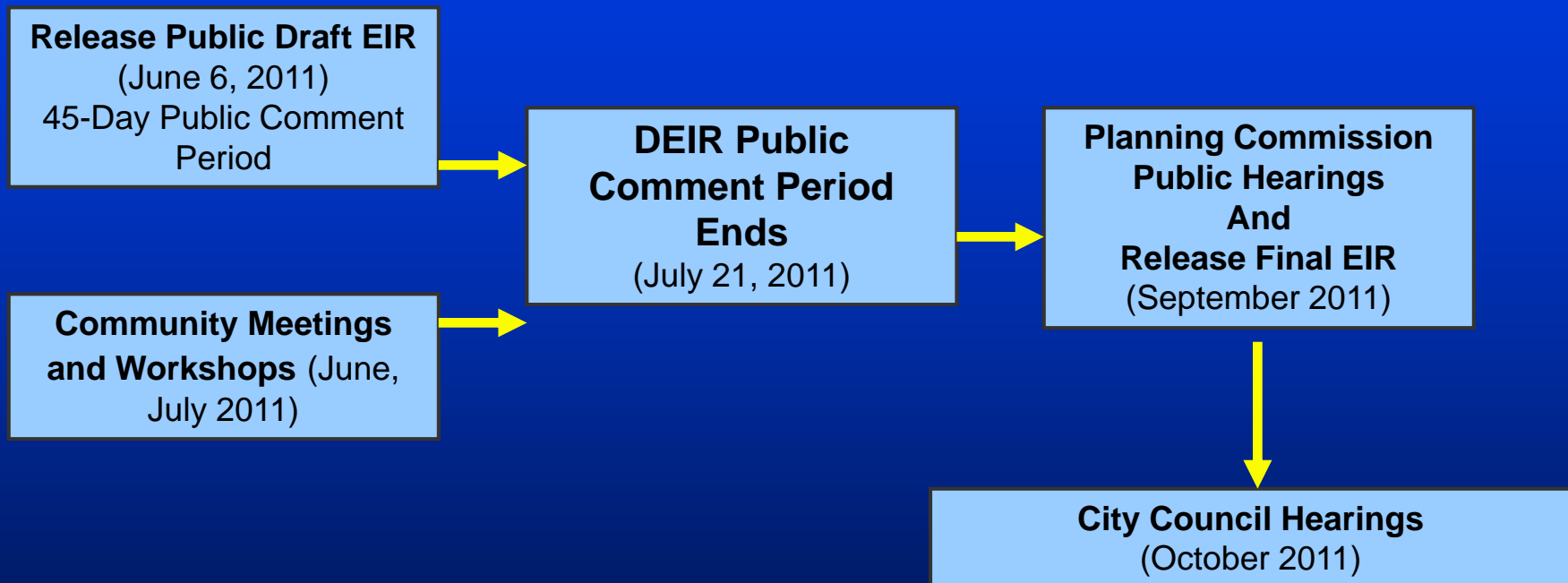
- The mitigated proposed Project with the North Access Road through Penn Street and the mitigated proposed Project Catalina Avenue Access for accessing the site, and the Lambert Railroad Right-Of-Way for the pipeline route.
- This Project still produces six significant, unavoidable impacts to aesthetics, recreation, land use (views of the drilling rig), air quality (from construction and emissions of GHG), and hydrology (due to the potential for spills).

Whittier Main Oil Field EIR

Appendices

- Appendix A- Project Description Design Data
- Appendix B - Air Emission Calculations
- Appendix C - Biological Surveys
- Appendix D - Risk Assessment Calculations
- Appendix E - Traffic Impact Analysis
- Appendix F - Cultural Resources Survey Report
- Appendix G – Summary of Oil and Gas Development Regulations in other Southern California Jurisdictions
- Appendix H - Socioeconomics
- Appendix I – Notice of Preparation, Scoping Document, Comments, and Responses
- Appendix J - References
- Appendix K - List of Abbreviations and Acronyms

The DEIR has been released to the public for comment



The EIR process allows for a number of opportunities for public input and participation.

- *NOP Scoping Meeting (May 2011)* – A Scoping meeting was held to receive comments on the DEIR.
- *Public Draft EIR Workshop (June 30, 2011)* – Public meeting to review and discuss the contents of the Draft EIR.
- *Public Comment Meeting (July 11, 2011)* – Public meetings to receive comment on the contents of the Draft EIR.
- *Planning Commission and City Council Public Hearings (September-October, 2011)* – Public hearings to consider the EIR and the Project.

Question and Answer Session

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Air Quality Mitigation Measures Proposed in the DEIR

- Prepare a Fugitive Dust Control Plan.
- Treat all Preserve dirt roads that will be used (pave or apply soil binders with at least 80% effectiveness).
- Treat all roads (pave or apply soil binders with at least 80% effectiveness) before beginning the development phase pad grading and facility construction to substantially reduce dirt road fugitive dust emissions during those phases of construction.
- All off-road diesel construction equipment shall be EPA Tier 3-certified or better engines, or utilize other CARB-verified emission control technologies to achieve the same level of emission reduction.
- Implement a program to quantify and reduce greenhouse gas emissions associated with operations.

Biological Resources Mitigation Measures Proposed in the DEIR

- All feasible means shall be employed to minimize noise effects upon wildlife. At a minimum, sound walls shall surround all drilling sites.
- All Project lighting shall be designed and shielded with the intent of preventing spillage of light into adjacent preserved open space areas.
- All roads used to access onsite oil facilities shall limit traffic to a maximum speed of 10 miles per hour. All nighttime traffic shall be minimized.
- Landscaping shall consist entirely of species native to the Project Site.
- Construction of the pad sites and facilities should be done outside the songbird breeding season. Monitoring for other birds.
- Bat protection measures.
- Install native screening vegetation.
- Installation of signage near the wildlife tunnel.

Noise and Vibration Mitigation Measures Proposed in the DEIR

- Ensure that all construction activities at the site is limited to daytime hours.
- Maintain all construction machinery as per the manufacturers' specifications. Back-up noise indicators shall be ambient sensitive, to minimize backup indicator noise or flaggers shall be used in the place of backup alarms (as allowed by OSHA).
- Limit drilling noise to no more than a 3-5dBA increase over baseline.
- Implement a Noise Reduction Plan for all drilling and operations.
- The Applicant shall institute a quiet-mode for facility operations of all drilling activities between 7 p.m. and 7 a.m.

Visual Mitigation Measures Proposed in the DEIR

- Landscaping with native vegetation shall be planted at the periphery of the property for the specific purpose of beautifying and screening the operations from adjoining residential and recreational areas, adjacent public streets, and highways.
- All visible structures at the well or processing sites shall be painted non-reflective earth-tone colors.
- Lights screened and directed.

Water Resources Mitigation Measures Proposed in the DEIR

- Inspect facility conditions at the Project Site yearly or more often as needed.
- Properly maintain the crude oil pipelines including smartpigging according to State of California Office of the State Fire Marshal requirements and line inspections.
- Install a leak detection system for crude pipelines in the Preserve and the Colima Road pipeline.
- Berms shall be installed around the entire drilling rig to capture any spilled fluids.

Geological Resources Mitigation Measures Proposed in the DEIR

- Design and construction of the proposed buildings and applicable structures to withstand the expected ground acceleration that may occur at the Project Site based on the California Building Code.
- All proposed slope construction, roadways, and work pads shall be properly engineered and fill placed in accordance with California Building Code and Los Angeles County requirements.
- All proposed pipelines shall be placed in properly constructed trenches.
- All existing facilities and equipment shall be inspected with respect to seismic integrity before operations.
- Cease any drilling and production activities and inspect all Project-related facilities, equipment, and pipelines following any seismic event that generates a ground acceleration of fifteen percent of gravity.
- Geotechnical evaluation

Fire Protection Mitigation Measures Proposed in the DEIR

- Provide fire water supplies.
- Install a community alert notification system to allow the oil field operator to notify neighbors in the event of an emergency.
- Develop emergency response plans addressing the facility's fire-fighting capabilities.
- Ensure that fuel modification areas create at least 30 feet of clearance from all oilfield equipment.

Appendix H - Socioeconomics

- Applicable academic research suggests a minimal effect on residential home values within a variety of distances (relatively close proximity) of the analyzed nuisance (odor, visual, and general health concerns).
- Interviews with local realtors suggest that home values most affected by the existing oil operations in the area could be depressed by approximately 10 percent. However, studies on various external nuisances suggest an upward bound of eight percent in total property depreciation under extreme circumstances.
- Nearby case studies found no adverse effect on home values within the determined influence areas and there does not appear to be any notable negative impact to home values in comparison to the larger City and County trends.
- In both the high and low impact scenario, the fiscal consequence (from the City's perspective) would be minimal.
- The new revenue source in the high and low price scenarios with assumed high levels of production are estimated to average between approximately \$115.4 million and \$7.5 million in new revenues