

**City of Whittier
General Plan Update and
Housing Element Update
Draft Environmental Impact Report
(State Clearinghouse # 2021040762)**

Lead Agency:

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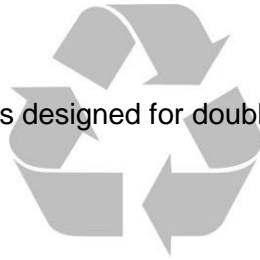


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- F. TRANSPORTATION IMPACT ANALYSIS

1.0 – Introduction

1.1 CEQA and the Purpose of an EIR

The City of Whittier (City or Lead Agency) has prepared an update of its General Plan (General Plan Update or GPU), to establish a vision and policies to shape and manage long term growth in the City’s “Planning Area.” The Planning Area includes areas within the City’s incorporated boundaries as well as areas within the City’s Sphere of Influence (SOI).

The adoption and implementation of a GPU is defined as a “project” and is subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et. seq.). Accordingly, the City has prepared this environmental impact report (EIR) to assess the long range and cumulative environmental consequences that could result from adoption and implementation of the proposed General Plan Update. This report has been prepared in accordance with the CEQA Statutes and Guidelines and with the City’s local rules and procedures for implementing CEQA. It was prepared by professional planning consultants under contract to the City. The City is the Lead Agency for the preparation of this EIR, as defined by CEQA (Public Resources Code, Section 21067, as amended), because it has primary discretionary authority with respect to adoption, amendment, and implementation of the proposed General Plan. The content of this document reflects the independent judgment of the City.

The body of state law collectively known as “CEQA” was originally enacted in 1970 and has been amended since. The legislative intent of these regulations is established in Section 21000 of the California Public Resources Code, as follows:

The Legislature finds and declares as follows:

- (a) The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.
- (b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.
- (c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.
- (d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the State take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.
- (e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.
- (f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.

(g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

The Legislature further finds and declares that it is the policy of the State to:

- h) 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.
- i) 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.
- j) Prevent the elimination of fish or wildlife species due to man's activities, ensure 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.
- k) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.
- l) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.
- m) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.
- n) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for some form of approval, is found in Section 21002, quoted below:

The Legislature finds and declares that it is the policy of the state 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, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

1.2 Purpose and Scope

The proposed General Plan Update is a long-range planning program to guide the growth and development of the City's Planning Area. It is intended to communicate the City's vision of its future and to establish a policy framework to govern decision-making concerning the physical

development of the community, including assurances that the community at large will be supported by an adequate range of public services and infrastructure systems. The City's GPU analyzed in this EIR has been tailored to address revised development and land use policy direction, reflect current vision regarding housing, circulation and mobility improvements, and to comply with current State law.

Although it will allow for an overall increase in development potential for the entire Planning Areas, the General Plan Update would not, by itself, authorize any specific development project or other form of land use approval or any kind of public facilities or capital facilities expenditures or improvements. As such, a Program EIR is the appropriate type of document to identify the geographic extent of sensitive resources and hazards, along with existing and planned services and infrastructure support systems that occur in the Planning Area. Further, the Program EIR is described in Section 15168 of the CEQA Guidelines as the appropriate analytical framework to assess the cumulative environmental effects of the full plan, in a first tier level of analysis, to identify broad concerns and sets of impacts, and to define/develop regulatory standards and programmatic procedures that reduce impacts and help achieve environmental goals and objectives.

Later activities proposed pursuant to the goals and policies of the General Plan will be reviewed in light of this EIR and may focus on those site-specific and localized environmental issues that could not be examined in sufficient detail as part of this EIR. Advantages of a Program EIR include consideration of effects and alternatives that cannot practically be reviewed at the project-level, consideration of cumulative impacts that may not be apparent on a project-by-project basis, the ability to enact citywide mitigation measures, and subsequent reduction in paperwork.

Organization of the Draft Program EIR

The Draft Program EIR (DEIR or Draft EIR) contains the primary analysis of potential environmental impacts discussed in the following seven sections described below

Section 1.0	Introduction.
Section 2.0	Executive Summary: A brief discussion of the project and summary of project impacts, mitigation measures and alternatives.
Section 3.0	Project Description: Provides detailed description of the proposed project and the Environmental Setting/Existing Conditions and project objectives.
Section 4.0	Environmental Impact Analysis: Evaluates project impacts and identifies mitigation measures designed to reduce significant impacts, where applicable. This Section include 20 chapters, each addressing different topical areas (Air Quality, Noise, etc).
Section 5.0	Alternatives: Provides an analysis of the different alternatives to the proposed project.
Section 6.0	CEQA Conclusions: Provides an analysis of growth-inducing impacts, significant unavoidable environmental impacts, and irreversible environmental change.

The appendices include:

- Appendix A: Notice of Preparation (NOP), including comment letters received and the NOP Distribution List
- Appendix B: List of General Plan Update Goals and Policies
- Appendix C: Existing Conditions Report
- Appendix D: Air Quality, Energy and Greenhouse Gas Analysis Technical Appendices
- Appendix E: Noise Analysis Technical Appendices
- Appendix F: Transportation Impact Analysis

In compliance with Public Resources Code Section 21081.6, a mitigation monitoring reporting program (MMRP) will be prepared as a separately bound document that will be adopted in conjunction with the certification of the Final EIR. The MMRP, responses to public comments on the Draft EIR, and any revisions to the Draft EIR will be identified in the Final EIR.

Approach to EIR Analysis

The approach to the analysis presented in this EIR is programmatic in nature given the broad scope of the General Plan Update. Each environmental issue is analyzed in a similar manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the proposed General Plan Update's potential impact to the environment. Thresholds of significance are based on a broad list of questions and impact topics set forth in Appendix G of the State CEQA Guidelines.

The impact analysis provided for each the 20 topical areas examines the broad, long-term environmental effects resulting from implementation of the goals and policies contained in each of the updated General Plan elements. The assessment of impacts focuses on how the impact in question could occur and whether the goals, policies or some other aspect of the proposed Plan would reduce or ameliorate such impacts. The presence of sensitive environmental resources, hazards in specific areas, and the broad implications of the General Plan throughout the Planning Area are considered in the determination of impact significance. If the analysis indicates that a significant impact could occur, even with the benefits of any proposed goals or policies, mitigation measures are specified.

1.3 Scoping and Public Review

Notice of Preparation

To define the scope of the investigation of the Program EIR, the City of Whittier distributed a Notice of Preparation (NOP) to local, county, state, and federal agencies along with interested private organizations and individuals. The NOP was delivered to the State Clearinghouse and the CEQA-required 30-day review period was began on April 30th, 2021 and ended on June 1, 2021. The purpose of the NOP is to provide agencies and private entities an opportunity to identify concerns regarding potential impacts of the proposed project, recommend items to be analyzed in the DEIR, and to provide suggestions concerning ways to avoid significant impacts

(Section 15082, CEQA Guidelines). The NOP is included in Appendix A, along with copies of written comments received during the 30-day public review period for the NOP and the NOP distribution list.

On May 17, 2021, the City conducted a scoping meeting on the NOP. The written comments received on the NOP during the 30-day review period are summarized in Table 1.1 and comments received during the scoping meeting are included in Table 1.2. The comment letters are also included in Appendix A.

Table 1-1
Brief Summary of Comments on the NOP

Commenting Agency/Person	Brief Summary of Comments on the NOP	Section(s) Where Addressed
Southern California Association of Governments (SCAG)	This letter describes SCAG's role as the Regional Transportation Planning Agency under state law and its responsibilities for preparation of the Regional Transportation Plan (RTP), including the Sustainable Communities Strategy (SCS). SCAG provides informational resources to facilitate the consistency of the proposed project with the adopted 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal). The letter also identifies applicable goals of Connect SoCal, provides a recommended format for showing project consistency with these goals, and further notes that under CEQA Lead Agencies have sole discretion in determining a local project's consistency with Connect SoCal. Additional information is also provided about SCAG growth forecasts, the Connect SoCal EIR mitigation measures, and the Regional Housing Needs Allocation.	Land Use and Traffic / Transportation
South Coast Air Quality Management District (SCAQMD)	The letter provides input as to how the air quality and greenhouse gas analyses should be conducted in accordance with SCAQMD guidelines and includes reference to several information sources. The letter also provides information on potential mitigation measures.	Air Quality and Greenhouse Gas
Puente Hills Habitat Preservation Authority	The letter indicates that the proposed land use designations for the GPU land use plan had been changed from "open space" to other land uses for lands owned and/or managed by the Habitat Authority. The letter further requested that such land be redesignated back to Open Space.	This comment stemmed from what was a mapping error that has since been corrected. All the land owned and/or managed by the Habitat Authority within the Planning Area is designated as Open Space.
Native American Heritage Commission	The commenter recommends consultation with California Native American Tribes, consistent with AB 52 and SB 18. <i>Note: The City is completing consultation with local</i>	Cultural Resources, and Tribal Cultural Resources

Commenting Agency/Person	Brief Summary of Comments on the NOP	Section(s) Where Addressed
	<i>tribes.</i>	
California Department of Fish and Wildlife	The comment letter provides recommendations as to how biological resources should be analyzed in the EIR. Also mentioned in the letter is the mapping error also noted by the Puente Hills Habitat Preservation Authority (see response above). The letter also addresses an extensive number of issues related to sensitive species and habitat types, including nesting birds, wildlife corridors, Sensitive Ecological Areas (SEA's), coastal California gnatcatcher, bats, jurisdictional waters, impact analysis methodologies and raptor habitat.	Biological Resources
Los Angeles County Sanitation Districts	This comment letter describes the Districts' roles and responsibility with respect to sewage, identifies the capacity of existing facilities, and provides other information regarding service fees and sewage treatment demand factors for various land uses.	Utilities and Services
California Dept. of Transportation	This comment letter indicates that the GPU is not expect project approval to result in a direct adverse impact to the existing State transportation facilities It also recommends that, to accommodate the additional housing units and not induce demand for excessive Vehicle Miles Travelled (VMT), that parking requirements be significantly reduced or eliminated. It also recommends implementation of a TDM ordinance, as an alternative to requiring car parking.	Transportation
Historic Resources Commission	This letter primarily consists of numerous criticisms of the content of, and process used to develop the proposed Historic Resources Element of the General Plan Update. Interspersed throughout the letter are recommended mitigation for the element and/or the EIR, mainly on Historic Resources.	Cultural Resources
Mitchell M. Tsai, Attorney at Law	<p>This letter starts by indicating that it is submitted on behalf of the Southwest Regional Council of Carpenters (SRCC). It also indicates that local hire and skilled and trained workforce requirements can reduce environmental impacts by reducing the length of vendor trips, and greenhouse gas and air pollutant emissions and providing localized economic benefits. The balance of the letter, starting at page 3 with subheading "I. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT".</p> <p>The next section is somewhat confusing and appears to be comments on the Draft EIR for a different development project. It is difficult to see how the assertion in the subheading can be supported at the time of the circulation of the NOP when the comment letter was submitted, since the Draft EIR was not yet available for review: at least no specifics were identified in the letter to support this conclusion for</p>	Air Quality, Greenhouse Gas Emissions

Commenting Agency/Person	Brief Summary of Comments on the NOP	Section(s) Where Addressed
	this project.	
Torrance Pipeline	The commenter noted they maintain one active 6-inch pipeline (M-24), one abandoned 6-inch pipeline (M-24), one idle 3-inch pipeline (G-50), one abandoned 3-inch pipeline (G-50), and 23 testing stations within the Planning Area. Most of their comments were intended for a project-level analysis which could be useful in the future when specific development is proposed.	Utilities and Service Systems
Los Angeles County Fire Department	The County provided information on its concerns regarding access and water requirements for future development, Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance.	Wildfire, Public Services (fire), Hazards and Hazardous Materials (wildfire), Biological Resources (oaks), and Cultural Resources
Whittier Conservancy	This letter makes numerous comments on the information and process used to develop the proposed Historic Resources Element of the General Plan Update. There are specific comments about specific topics that are to be addressed in the EIR regarding Historic Resources.	Cultural Resources
Various Residents	This emailed material contained signatures from about a dozen residents that urged the City not to increase housing densities. There were also comments about trash service that are administrative and not applicable to the General Plan Update.	Land Use and Planning, Population and Housing (density)

Table 1.2
Summary of Scoping Meeting Comments

Commenting Agency/Person	Summary of Comments
Susan Cameron, Homes for Whittier	Indicated that housing is the number one priority for Homes for Whittier, and they want more affordable housing at all levels, with reduced/streamlined government (city) regulations to expedite new housing.
David Barboza, Homes for Whittier	Indicated that infill development is preferable to greenfield building, that it is important to find ways to reduce cost and time for homebuyers, and that specific CEQA thresholds to identify significant housing impacts for the General Plan Update.

Public Review of Draft EIR

Comments from all agencies and individuals are invited regarding the information contained in the Draft Program EIR. Such comments should explain any perceived deficiencies in the assessment of impacts or provide the information that is purportedly lacking in the Draft Program EIR or indicate where the information may be found.

The 45-day public review period for the DEIR runs from **July 9 to August 23, 2021**. All comments on the Draft Program EIR are to be submitted to:

Sonya Lui, Principal Planner
Whittier Community Development
13230 Penn Street | Whittier, CA 90602
(562) 567-9320
slui@cityofwhittier.org

Following the 45-day period of circulation and public review of the Draft Program EIR, all comments and the City's responses to the comments will be incorporated into a Final Program EIR prior to certification of the document by the City of Whittier.

Availability of EIR Materials

All materials related to the preparation of this Program EIR, including information incorporated by reference, are available for public review. The Notice of Preparation and the Draft Program EIR are posted on the City's website:

<http://www.envisionwhittier.com>

To request an appointment to review these materials, please contact Sonya Liu (see contact information above).

1.4 Citation

Preparation of this Program EIR and the General Plan Update rely on information from many sources, including the appendix materials previously listed and numerous other references. Pursuant to Section 15148 of the State CEQA Guidelines, citations from the appendix materials and other sources are provided throughout the EIR. Citations are numbered sequentially and inclusive to each environmental impact topic (Sections 4.1 through 4.20). References are located at the end of each section of this DEIR.

2 – Executive Summary

This chapter provides a summary description for the City of Whittier General Plan Update ("GPU" or "Project"), a list of associated environmental issues to be resolved, a summary of significant impacts and mitigation measures associated with the Project, and a summary of feasible alternatives to the Project, including identification of the environmentally superior alternative.

A. Project Location

The Planning Area is in southeast Los Angeles County approximately 12 miles to the southeast of downtown Los Angeles. The City is bordered by the unincorporated community of Hacienda Heights and the cities of La Habra Heights and Industry to the north/northeast. The City of Pico Rivera lies to the west, La Habra to the southeast and the cities of Santa Fe Springs, La Mirada, Norwalk, and Orange County to the south.

B. Project Description

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community's growth over the long-term. Table 3-1 compares existing and projected 2040 land use and demographic information for the City of Whittier, the Sphere of Influence, and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated to result in increases of approximately 472 single family dwellings, 7,023 multifamily dwellings, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year.

C. General Plan Elements

The City of Whittier General Plan Update succeeds the last comprehensive general plan adopted in 1993. The General Plan Update incorporates statutory requirements for general plans and guidance provided in the Office of Planning and Research 2017 General Plan Guidelines; coordinates future development and policies with regional planning efforts and serves as the city's fundamental guide in developing strategies to address greenhouse gas reduction, climate change, and climate planning. The EIR incorporates each of the elements goals, policies, and objectives of the following chapters in the adopted General Plan:

- Land Use and Community Character Element
- Mobility and Infrastructure Element
- Housing Element Update (2021-2029)
- Resource Management Element
- Public Safety, Noise, and Health Element
- Historic Resources Element
- Environmental Justice Element (Incorporated Throughout)

These goals, objectives, and policies are intended to maintain various potential environmental effects of the project at levels that are less than significant and is considered when evaluating the potential environmental impacts of implementing the General Plan. Chapter 4 of this document list goals, policies, and objectives from the General Plan. The Housing Element is updated for the 6th cycle and planned developments identified in the Land Use Element

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accommodates the Regional Housing Needs Allocation goal of 3,439 housing units, which represents a 11.5% increase from the existing number of housing units within City boundaries.

Land Use and Community Character Element

The Land Use and Community Character Element directs Whittier’s long-term growth and physical development through the year 2040 by designating the future use of land within the corporate City limits and Whittier’s designated sphere of influence. The element identifies the planned locations, types, and intensity of housing, businesses, industries, open spaces, public buildings, and institutions. Policies intertwine land use and urban form by addressing building heights and orientation, design of the public realm (the space between buildings, including streets), and the public realm relationship to adjacent buildings. The Land Use and Community Character Element serves as a guide for decision-makers, residents, stakeholders, business owners, and property owners as it identifies and describes the type, intensity, and general distribution of land for housing, businesses, industries, and public facilities. Land use designations identify the general categories of activities permitted throughout the city.

The Land Use and Community Character Element frames all other General Plan elements since the use of land affects:

- The design, location, and extent of the circulation system (Mobility and Infrastructure Element)
- Where new housing development occurs (Housing Element)
- The conservation and utilization of natural resources, including the allocation of parks and open space resources (Resource Management Element)
- The city’s identity with distinctive architecture, preservation and restoration of landmarks, historic homes, and structures (Historic Resources Element)
- Quality of life indicators such as rates of chronic disease, local air quality, natural hazards, and exposure to contaminants (Safety, Noise, and Health Element)
- Extent of urban services and utilities (Mobility and Infrastructure Element)

In this element, the definition of each land use category includes not just the land use intent but also the three-dimensional aspects of development required to implement the vision for a district or neighborhood. For example, much of Whittier Boulevard is planned to accommodate mixed-use development at varying densities, dependent upon location along the boulevard. To implement the vision for an integrated, visually and physically connected mix of uses and attractive streetscape, the land use designations indicate the required urban design approaches. More specific implementing strategies—including the details for the community benefits incentives—are set forth in the zoning code and applicable specific plans. The goals and policies contained in the Land Use and Community Character Element provide guidance to plan for orderly growth, promote economic development, and protect natural resources. Exhibit 3-4 shows the existing General Plan Land Use Map and Exhibit 3-5 shows the proposed General Plan Land Use Map.

Mobility and Infrastructure Element

Whittier’s model for mobility in the 21st century deviates from traditional transportation planning. We propose to shift circulation and associated land use planning toward options that will improve environmental quality, encourage healthier lifestyles, support economic development, and provide options for safe alternative modes of transportation. To ensure a balanced, multi-modal transportation network, the Mobility and Infrastructure Element organizes streets and

other transportation facilities according to typologies that consider the context and prioritize different travel modes for each street. Together, the typologies provide a network of “complete streets” to accommodate all types of local transportation modes. These typologies will guide the development of standards, to ensure transportation plans and improvements consider relationships to surrounding land uses, appropriate travel speeds, and the need to accommodate multiple travel modes and various users. This Element’s overarching mobility goal is to establish and maintain a balanced, multi-modal transportation network that gets us where we want to go safely and minimizes environmental and neighborhood impacts.

The infrastructure component of this Element addresses the physical facilities needed for the conveyance of vital services and functions such as water storage and distribution, wastewater collection and treatment, and storm drainage and flood control. These infrastructure systems represent the vital support network upon which we rely to maintain our daily activities. To preserve high levels of service in Whittier, ongoing maintenance, improvement, and replacement is required; and new development must ensure that new needs are met without burdening the current users.

Housing Element Update (2021-2029)

As required for every California jurisdiction, the City of Whittier updates its General Plan Housing Element on an eight-year cycle. In November and December 2020, the City hosted five community workshops to collect input on housing challenges, needs, and strategies from a board cross-section of residents and stakeholders. Due to the constraints on public gathering imposed by the Center for Disease Control, as a result of the novel COVID-19 virus pandemic, the workshops were held through an online platform, and were divided amongst Whittier’s four districts. The Housing Element presentations focused on legislative intent of housing law, population and housing characteristics in Paramount, how affordable housing is defined, and how can the City accommodate its Regional Housing Needs Assessment (RHNA) of 3,439 units. Workshops were advertised using City social media platforms (Facebook, Twitter, and Instagram), email blasts, and city website.

Resource Management Element

The Open Space and Conservation Element focuses on preserving, protecting, conserving, reusing, and efficiently using Whittier’s natural resources. Natural resources include the lands, fossil fuels, water, wildlife, plants and trees, air, and other resources obtained from the Earth. Some resources are managed, such as landscaped parks. Other resources are meant to flourish through conservation, such as the varied habitats in the Puente Hills Preserve. This Element examines baseline conditions including water resources; air quality, greenhouse gases, and associated health effects; tribal resources; oil and gas resources; parks and open space; and urban forestry. The Element sets forth goals and policies that address natural resource conservation, preservation of scenic resources, protecting water resources, managing energy resources, reducing greenhouse gas emissions, protecting historic preservation and cultural resources, and promoting sustainable building practices.

Public Safety, Noise, and Health Element

The purpose of the Safety, Noise, and Health Element is to identify and minimize risks associated with natural and human-generated hazards through land use decisions and allocation of City resources. A dual purpose is to shape the physical environment and public services in ways that allow community members to thrive and reach their greatest potential. A dual purpose is to shape the physical environment and public services in ways that allow community members to thrive and reach their greatest potential. By proactively addressing

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potential hazards, the City looks to diminish threats posed to residents, businesses, and the local economy associated with flooding, earthquakes, wildfires, climate change and its effects, excessive noise levels, and the presence of hazardous materials. The Public Safety, Noise, and Health Element is categorized into six topic areas: emergency preparedness and safety services, natural hazards, pollution exposure, climate adaptation, environmental justice and community health, and noise. Emergency preparedness and safety services addresses emergency preparedness and police and fire services. Natural hazards address seismic hazards, wildfire hazards, and flood and dam inundation. Pollution exposure addresses hazardous materials, oil production, and contaminated sites. Climate adaptation is responding to climate change and long-term shifts in global or regional climate patterns. Environmental justice and community health addresses disadvantaged communities, pollution and population characteristics, community health and livability, and healthy homes. This element's noise section examines the local noise environment and establishes standards to encourage noise-compatible land use patterns. Noise concerns focus on stationary sources like manufacturing and construction as well as roadway noise.

Historic Resources Element

The 1993 Whittier General Plan included an Historic Resources Element, the Envision Whittier General Plan updates the earlier Element. The City has chosen to include an Historic Resources because the community values its history and culture and seeks to identify goals and policies that promotes the preservation of historic and cultural resources. With a rich past worthy of preservation, the City has acted proactively with regard to historic preservation policies, as evidenced by the adoption of an optional Historic Resources Element in 1993. Efforts as early as the late 1970s worked toward revitalization of Uptown. Additionally, the City has received consistently high ratings from the non-profit, historic preservation county-wide advocacy organization the Los Angeles Conservancy in its *Historic Preservation Report Card*, last updated in 2014. The Historic Resources Element allows Whittier to consider its current programs, policies, and practices and establish a path to implement goals and policies that will continue its tradition of best practices in Historic Preservation.

Environmental Justice Element (Integrated Throughout)

As mandated by State law, the Environmental Justice Element must identify policies and objectives related to addressing and identifying health risks associated with overconcentration and proximity of industrial and polluting land uses to residences, reducing health risks through promotion of physical activities, improved housing conditions, and food access. The Whittier General Plan Update takes a holistic approach to this topic by incorporating environmental justice issues into each of the updated General Plan elements described above. Environmental justice issues are defined as those that promote community engagement in the public decision-making process, reduce the unique or compounded health risks in disadvantaged communities, and prioritize improvements and programs to address the needs of disadvantaged communities. Disadvantaged communities as defined by the State of California are communities (area, neighborhoods, or parts of neighborhoods) that are disproportionately burdened by multiple sources of pollution and with population characteristics that make them more sensitive to pollution. Some of Whittier's western neighborhoods are considered by the State to be disadvantaged communities in CalEnviroScreen Version 3.0. For all of Whittier, especially those western neighborhoods, it is critical that environmental justice be considered at every level of Envision Whittier's implementation. Like sustainability, environmental justice is also integrated into every Element. Envision Whittier policies and programs supporting the environmental justice goal through reducing pollution exposure; promoting public facilities, food access, safe

and sanitary homes, physical activity, and adaptation to climate change; and promoting civil engagement are marked with a green global community symbol.

D. Zoning Map and Zoning Text Amendments

Title 17 (Subdivisions) and Title 18 (Zoning) of the Whittier Municipal Code is the primary tool for implementing the goals, objectives, and policies of the General Plan Update, pursuant to the mandated provisions of the State Planning and Zoning Law (Government Code Section 65000 et seq.), State Subdivision Map Act (Government Code Section 66410 et seq.), California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and other applicable state and local requirements. The subdivision regulations, zoning map, zoning regulations, standards, permits and procedures that are contained in Title 17 and Title 18 and other parts of the Whittier Municipal Code, as applicable, will be revised following adoption of the General Plan Update to be consistent with its the goals, policies, exhibits and texts. The General Plan Update and accompanying zoning map and zoning text amendments include elimination of two Specific Plans: the Whittwood Town Center Specific Plan and the Whittier Boulevard Specific Plan. However, no changes to either the Uptown Whittier Specific Plan or the Lincoln (Nelles) Specific Plan are proposed.

E. Environmental Issues

As required by the CEQA Guidelines, this EIR addresses areas of potential environmental impact or controversy known to the Lead Agency (the City), including those issues and concerns identified by the City in its Notice of Preparation (NOP) of this EIR and by other agencies, organizations, and individuals in response to the NOP. The Draft EIR covers all 20 of the CEQA Appendix G checklist topics, listed below.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

- Wildfire

F. Summary of Significant Impacts and Mitigation Measures

For each of the environmental topics listed above, any "*significant*" Project or cumulative impact and associated mitigation measure(s) identified in this EIR are summarized in Table 2-1, Summary of Potentially Significant Impacts and Recommended Mitigation Measures, which follows at the end of this chapter. The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 4.1 through 4.20 of this Draft EIR. The chart is arranged in four columns: (1) identified impacts, (2) potential significance without mitigation, (3) mitigation measure(s), and (4) the level of impact significance after implementation of the mitigation measure(s). Because the table does not list impacts that are less than significant with no mitigation required, the Impact/Mitigation Measure numbering may be out of sequence.

**TABLE 2-1
SUMMARY OF POTENTIALLY SIGNIFICANT IMPACTS AND RECOMMENDED MITIGATION MEASURES**

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
AIR QUALITY			
<p>Impact AIR-1 – Would the Project conflict with or obstruct implementation of the applicable air quality plan?</p> <p>Since the population growth could occur under the Project's 2040 conditions would be inconsistent with the 2016 RTP/SCS growth forecasts, the Project could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards, particularly national and state ozone standards. This is considered a potentially significant impact.</p>	<p align="center">S (Significant)</p>	<p>Mitigation Measure AQ-1: Require a Project-level Construction Assessment for New Discretionary Development Projects. The City shall require applications to submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future discretionary development projects. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the South Coast Air Quality Management District (SCAQMD) and, if emissions are shown to be above SCAQMD thresholds, the City shall require the imposition and implementation of mitigation to reduce emissions below the thresholds that have been exceeded. Mitigation to reduce emissions could include, but are not limited to:</p> <ul style="list-style-type: none"> • Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime); • Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter); • Minimizing the idling time of diesel-powered construction equipment to two minutes; and • Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD 	<p>SU (Significant and Unavoidable)</p>

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>Rule 1113 “Low-VOC” or “Super-Compliant” requirements).</p> <p>Mitigation Measure AQ-2: Prohibit the Installation of Natural Gas Hearths in New Residential Development. The City shall prohibit the installation of new natural gas hearths/fireplaces in new residential development. Natural gas hearths/fireplaces may be incorporated into remodels / redevelopment if the existing structure(s) proposed for remodel / redevelopment featured natural gas hearths/fireplaces; however, the quantity of natural gas hearths/fireplaces provided by the new structure(s) may not exceed that present prior to the remodel / redevelopment and must meet the most recent U.S. EPA, CARB, and/or SCAQMD emissions standards in effect at the time of building permit issuance.</p>	
<p>Impact Air-2 – Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?</p> <p>Due to the built-out nature of the City, construction emissions are speculative as demolition, site preparation, grading, building construction, paving and painting activities would occur. Fugitive dust (PM10) emissions would be greatest during building demolition, site preparation, and grading, and NOx emission would result from the combustion of diesel fuels used to power off road heavy-duty pieces of equipment (e.g. backhoes, bulldozers, excavators, etc). Despite the unknowns, it is plausible that one or more projects developed under implementation of the proposed GPU could exceed one or more of</p>	<p>S</p>	<p>See Mitigation Measure AQ-1 and AQ-2, Above</p>	<p>SU (Construction Emissions Only)</p>

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
<p>the SCAMD’s construction criteria air pollutant thresholds of significant and the impact is potentially significant and requires mitigation.</p> <p>As shown in Table 4.3-7, the maximum daily operational emissions associated with the 2040 growth under the Project would result in NOx emissions that exceed SCAQMD-recommended significance thresholds. This is considered a potentially significant impact. All other potential Project operational emissions would be below SCAQMD-recommended CEQA significance thresholds.</p>			
<p><i>Impact Air-3 – Would the GPU expose sensitive receptors to substantial pollutant concentrations?</i></p> <p>Construction emissions associated with future development activities facilitated under implementation of the proposed GPU could exceed SCAQMD construction LSTs and cancerogenic and non-cancerogenic threshold maintained and recommended by the SCAQMD. This is considered a potentially significant impact.</p>	S	See Mitigation Measure AQ-1, Above	SU (Construction Emissions Only)
<p><i>Would the GPU cause substantial adverse cumulative impacts with respect to Air Quality?</i></p> <p>The Project’s 2040 growth projection and associated construction and operational emissions could result in population growth that is not consistent with the planning assumptions and emissions levels that exceed SCAQMD-recommended CEQA thresholds of significance. This is a potentially significant impact.</p>	S	See Mitigation Measure AQ-1 and AQ-2, Above	SU (Significant and Unavoidable)

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
GREENHOUSE GAS EMISSIONS			
<p>Impact GHG-1 – Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</p> <p>As shown in Table 4.8-4, the Project's 2040 growth projection could result in GHG emissions that exceed the adjusted, SCAQMD derived plan-level efficiency metric. This is considered a potentially significant impact.</p>	<p>S</p>	<p>Mitigation Measure GHG-1: The 2019 CalGreen Code contains several voluntary measures that are not formally required. Within one year of adoption of the General Plan Update, the City shall adopt an ordinance that incorporates, requires and makes mandatory certain Calgreen Code voluntary measures as described below.</p> <ul style="list-style-type: none"> a. Require new residential tentative tract maps that would allow 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.1 of the CalGreen Code, and that each dwelling be equipped with a vehicle charging station that has a similar or better functionality than a Level 2 charging station. b. Require new multifamily projects with 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.2 of the CalGreen Code, and that each one of the parking spaces that has such electric vehicle infrastructure be equipped with vehicle charging stations that have a similar or better functionality than a Level 2 charging station. c. Require new non-residential development projects to provide designated parking for any combination of low-emitting, fuel efficient, and carpool/van pool vehicles pursuant to the Tier 2 requirements of Table A5.106.5.1.2 of the CalGreen Code. Such parking spaces shall be marked pursuant to Section A5.106.5.1.3 of the CalGreen Code. d. Require new non-residential development projects to provide electric vehicle charging spaces with electric vehicle infrastructure in compliance with Table A5.106.5.3.2 of the California Green Code and be 	<p>SU (Significant and Unavoidable)</p>

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>equipped with vehicle charging stations that have similar or better functionality than a Level 2 charging station. Such spaces shall be marked in compliance with Section A5.106.5.3.3 of the CalGreen Code.</p> <p>Mitigation Measure GHG-2: Within two years of the adoption of the General Plan, The City shall consider and evaluate the feasibility of adopting an ordinance that amends the City’s Municipal Code to require all new residential and/or non-residential development subject to Title 24, Part 6 of the California Building Code to achieve Zero Net Energy (ZNE) standards. If the City finds ZNE technology, programs, and/or other strategies are feasible and cost-effective, the City shall adopt a ZNE ordinance as expeditiously as possible given City resources. As defined by the California Energy Commission (CEC), ZNE standards require the value of the net energy produced by project renewable energy resources equals the value of the energy consumed annually by the project, using the CEC’s Time Dependent Valuation (CEC, 2015).</p>	
<p>Impact GHG-2 – Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</p> <p>As shown in Table 4.8-6, the Project growth could result in GHG emissions that exceed the 2017 Climate Change Scoping Plan’s recommended efficiency metrics. In addition, the Project has the potential to result in growth which is approximately 1.7 times more than the assumed growth in the 2020 RTP/SCS. This is considered a potentially significant impact.</p>	<p>S</p>	<p>Mitigation Measure AQ-2 will also provide GHG emissions reduction benefits.</p> <p>See Mitigation Measures GHG-1 and GHG-2 above.</p> <p>Mitigation Measure VMT-1: The City shall seek ways to expand local transit services including but not limited to: (1) adding shuttle routes connecting several destinations such as Uptown Whittier, the Groves, the proposed Lambert Road/Washington Boulevard Station of the Eastside Transit Corridor Phase 2 (L Line, formerly Gold Line), the Quad, and Whittier College; and (2) expand local shuttle operations that would occur on weekdays during on-/off-peak hours, with 15-minute headways and a route and stops serving several areas and key destinations.</p> <p>Mitigation Measure VMT-2: The City shall investigate</p>	<p>SU (Significant and Unavoidable)</p>

Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		<p>ways to achieve “early buildout” of the bicycle and pedestrian facility network proposed in the City’s Bicycle Master Plan and General Plan. These actions would be in addition to completion of the Whittier Greenway Trail to the eastern City limit for which the City has already designed and secured funding. Such actions would help reduce Total VMT per service population because any trip, whether for employment, residential, or other trip purposes, that shifts to utilizing the bicycle or pedestrian network would lead to a reduction in VMT.</p> <p>Mitigation Measure VMT-3: The City will develop specific policies and incentives to encourage telecommuting and alternative work schedules (similar to the shift to telecommuting from Covid-19 and continuing advances in technology). These actions would be applied to selected employment categories such as professional employees and would not be applied to certain other employment categories (e.g., retail employees would still continue to work on-site). For example, the Fehr & Peers Study examined up to one day a week of telecommuting which would reduce the number of commute trips and therefore reduce the total and per capita VMT traveled by employees in that employment category.</p>	
<p>Would the project cause substantial adverse cumulative impacts with respect to greenhouse gas emissions?</p> <p>The Project’s 2040 growth projection and associated GHG emissions could exceed the significance threshold applied in this EIR and pose a conflict with the 2017 Climate Change Scoping Plan. This is considered a potentially significant impact.</p>	S	<p>See Mitigation Measure AQ-2, GHG-1, GHG-2, VMT-1, and VMT-2, Above</p>	<p>SU (Significant and Unavoidable)</p>

NOISE			
<p>Impact NOISE-3 – Would the project result in generation of excessive groundborne noise levels?</p> <p>Future planned mixed-use development at the intersection of Lambert Toad and 1st Avenue (residential and non-residential) could be exposed to excessive freight train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 80 or 83 Vdb, respectively. This is considered a potentially significant impact.</p>	S	<p>Mitigation Measure NOI-1: The City shall require new residential and commercial projects located within 200 feet of the Union Pacific railroad track to conduct a freight train ground vibration and vibration noise evaluation consistent with approved vibration assessment methodologies (e.g. Caltrans, Federal Transportation Authority).</p>	LTS (Less than Significant)
HYDROLOGY AND WATER QUALITY			
<p>Impact HYDRO-2 – Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?</p> <p>The population anticipated under the Project is greater than the population assumed in the City of Whittier UWMP. As such, it is possible that there may be more demand for water than what was previously considered in the UWMP. This is considered a potentially significant impact.</p>	S	<p>Mitigation Measure UTL-1: Water Demand Management. New developments under the General Plan Update that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Master Plan for the involved local water provider.</p>	LTS (Less than Significant)
TRANSPORTATION			
<p>Impact TRANS-2 – Would the project conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)?</p> <p>Table 4.17-8 shows the City will achieve double a 15 percent reduction for Total VMT per Service Population trips (30.0). However, Table 4.17-8 also shows that by 2040 the City will not quite achieve a 15 percent or more reduction for two of the major trip types expected in the City; Home-Based VMT per Capita (14.5) and</p>	S	<p>Mitigation Measure VMT-1: The City shall seek ways to expand local transit services including but not limited to: (1) adding shuttle routes connecting several destinations such as Uptown Whittier, the Groves, the proposed Lambert Road/Washington Boulevard Station of the Eastside Transit Corridor Phase 2 (L Line, formerly Gold Line), the Quad, and Whittier College; and (2) expand local shuttle operations that would occur on weekdays during on-/off-peak hours, with 15-minute headways and a route and stops serving several areas and key</p>	SU (Significant and Unavoidable)

<p>Home-Based Work VMT per Employee (14.7). Although the total service population VMT achieves the 15 percent reduction, to err on the side of caution, this is still considered a potentially significant impact.</p>		<p>destinations.</p> <p>Mitigation Measure VMT-2: The City shall investigate ways to achieve “early buildout” of the bicycle and pedestrian facility network proposed in the City’s Bicycle Master Plan and General Plan. These actions would be in addition to completion of the Whittier Greenway Trail to the eastern City limit for which the City has already designed and secured funding. Such actions would help reduce Total VMT per service population because any trip, whether for employment, residential, or other trip purposes, that shifts to utilizing the bicycle or pedestrian network would lead to a reduction in VMT.</p> <p>Mitigation Measure VMT-3: The City will develop specific policies and incentives to encourage telecommuting and alternative work schedules (similar to the shift to telecommuting from Covid-19 and continuing advances in technology). These actions would be applied to selected employment categories such as professional employees and would not be applied to certain other employment categories (e.g., retail employees would still continue to work on-site). For example, the Fehr & Peers Study examined up to one day a week of telecommuting which would reduce the number of commute trips and therefore reduce the total and per capita VMT traveled by employees in that employment category.</p>	
UTILITIES AND SERVICE SYSTEMS			
<p>Impact UTS-1 – Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?</p> <p>Sufficient long-term water supplies for the Project cannot be guaranteed at this time. This is considered a potentially significant impact.</p>	S	<p>Mitigation Measure UTL-1: New developments under the General Plan Update that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Master Plan for the involved local water provider.</p>	LTS
<p>UTS-2 – Would the GPU have sufficient water supplies available to serve the GPU and reasonably foreseeable future development during normal, dry, & multiple</p>	S	<p>Mitigation Measure UTL-1: New developments under the General Plan Update that will be served by local water utility providers that will not be approved if they increase water use in excess of what is identified for</p>	LTS

<p><i>dry years?</i></p> <p>Until the City and other water serving agencies update their UMWPs to incorporate the new growth projects, the proposed GPU may have significant short-or long-term impacts regarding water supply for reasonably foreseeable future development during normal, dry, and multiple dry years.</p>		<p>supply in 2040 under the most recent Urban Water Management Plan for the involved local water provider.</p>	
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NOTES:

S = Significant Impact

LTS = Less than Significant Impact

SU = Significant Unavoidable Impact

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G. Alternatives to the Proposed Project

To provide a basis for further understanding of the environmental effects of a proposed project and possible approaches to reducing its identified significant impacts, the CEQA Guidelines require an EIR to also “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.”

Project Objectives

1. Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. Create new housing opportunities for a full range of housing types and to increase housing affordability.
3. Strengthen the City’s industrial and office sectors.
4. Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
5. Strive for a downtown that showcases the City’s rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
6. Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
7. Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Ensure residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
8. Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

Identified Alternatives

1. Alternative 1: No Project/Existing General Plan

The No Project/Existing General Plan Alternative (No Project Alternative) assumes that development would occur within the Planning Area, but only in the locations and at the densities allowed or anticipated under the 1993 General Plan.

The No Project Alternative assumes a continuation of the existing 1993 General Plan. As this alternative would result in a reduction in the amount of development, and would not include any of the updated goals and policies included in the GPU, it would generally meet the project objectives, but not at the same level as the Project.

2. Alternative 2: Reduced (25%) Overall Development

The Reduced Overall Development Alternative assumes that overall development associated with the Project would be reduced by twenty-five percent. This alternative assumes that policies

and goals associated with the General Plan Update would be applicable to development under this alternative.

The Reduced Overall Development Alternative assumes a general twenty-five percent reduction of development within the Planning Area when compared to the Project. Additionally, goals and policies within the GPU would be applicable to this alternative. This alternative would generally meet the project objectives, similar to the Project.

3. Alternative 3: Reduced (40%) Residential Development

The Reduced Residential Alternative assumes that residential development would be restricted to areas included in already approved Specific Plans or urbanized areas that include existing infrastructure. This would result in a substantial reduction in residential and population growth; non-residential and hotel/motel development would be similar to the Project. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative.

The Reduced Residential Alternative assumes a reduction in residential development population growth within the Planning Area, but a similar level of non-residential growth as associated with the Project. This alternative assumes GPU goals and policies would be applicable. It would generally meet the project objectives, similar to the Project.

Comparison of Impacts

Table 2-2 compares the environmental impacts of the various alternatives to those of the proposed GPU Project. All of the alternatives would reduce the overall levels of impacts compared to the Project since they all propose less overall development. However, none of the alternatives would eliminate any of the significant and unavoidable impacts identified for the proposed GPU. In addition, none of the alternatives help the City achieve its RHNA housing allocation to nearly the same degree as the proposed GPU.

Environmentally Superior Alternative

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." While both Alternative 2 and Alternative 3 would result in reduced or similar less than significant impacts as the Project, Alternative 2 would result in an overall greater reduction in development potential than Alternative 3. Therefore, other than Alternative 1 (No Project—Existing General Plan), Alternative 2, Reduced (25%) Overall Development Capacity, would result in the least adverse environmental impacts and would therefore be the "environmentally superior alternative." This conclusion is based on the comparative impact conclusions in Table 2-2 and the analysis within this section. However, this alternative would not meet the objectives to nearly the same degree as the Project.

**Table 2-2
Alternatives' Impacts Compared to Project Impacts**

Impact/Resource	Alternative 1: No Project/Existing General Plan Development Capacity	Alternative 2: Reduced (25%) Overall Development Capacity	Alternative 3: Reduced (40%) Residential Development Capacity
Aesthetics	Reduced LTS	Reduced LTS	Reduced LTS
Agriculture and Forestry Resources	Similar no impact	Similar no impact	Similar no impact
Air Quality	Reduced SU	Reduced SU	Reduced SU
Biological Resources	Similar LTS	Similar LTS	Reduced LTS
Cultural Resources	Similar LTS	Similar LTS	Similar LTS
Energy	Reduced LTS	Reduced LTS	Reduced LTS
Geology and Soils	Similar LTS	Similar LTS	Similar LTS
Greenhouse Gas Emissions	Reduced SU	Reduced SU	Reduced SU
Hazards and Hazardous Materials	Similar LTS	Similar LTS	Similar LTS
Hydrology and Water Quality	Similar LTS	Similar LTS	Similar LTS
Land Use	Similar LTS	Similar LTS	Similar LTS
Mineral Resources	Similar no impact	Similar no impact	Similar no impact
Noise	Reduced LTS	Reduced LTS	Reduced LTS
Population and Housing	Reduced LTS	Reduced LTS	Reduced LTS
Public Services	Reduced LTS	Reduced LTS	Reduced LTS
Recreation	Reduced LTS	Reduced LTS	Reduced LTS
Transportation	Reduced SU	Reduced SU	Reduced SU
Tribal Cultural Resources	Similar LTS	Similar LTS	Similar LTS
Utilities and Service Systems	Reduced LTS	Reduced LTS	Reduced LTS
Wildfire	Similar LTS	Similar LTS	Similar LTS
Source: MIG, 2021			
LTS= Less-than-Significant Impacts			
SU= Significant and Unavoidable Impacts			

H. Areas of Controversy

Several areas of controversy have arisen during preparation of the City's General Plan. These include higher residential densities, increased housing and VMT, open space mapping, water availability, local workforce, and historical resources, as outlined below:

Higher Residential Densities. Concerns have been expressed from the public about increasing housing densities which has resulted from the City trying to meet their RHNA housing allocation. A number of residents made specific comments during the NOP period about increasing densities of multi-family housing and the addition of higher density multi-family housing near their single family neighborhoods.

Increased Housing and VMT. One issue that developed during the EIR process is there is an inherent conflict between the increased housing goals of the state, as demonstrated by the City's increased RHNA housing allocation, and the state/regional goal to reduce vehicle miles traveled (VMT) as outlined in SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS, otherwise known as "Connect SoCal").

Open Space Mapping. Both the Puente Hills Habitat Preservation Authority and the California Department of Fish and Wildlife have expressed concern about the boundaries of the Puente Hills Preserve and if there are any efforts to remove property from the Preserve or redesignate land from open space to some classification that allows development.

Water Availability. It is unclear if or how local water-serving agencies can provide sufficient supplies of water to support the anticipated growth in housing and non-residential uses under the General Plan Update.

Local Workforce. During the NOP period an attorney for a carpenter's union encouraged the General Plan to encourage the hiring of a local skilled and trained workforce (i.e., union workers) to reduce environmental impacts by reducing the length of vendor trips, reducing greenhouse gas and air pollutant emissions, and providing localized economic benefits.

Historical Resources. The City's Historic Resources Commission and the non-profit Whittier Conservancy both indicated there is some controversy in the City as to how historical resources are assessed and protected.

3.0 – Project Description

The City's General Plan was last updated in 1993. The comprehensive update of the City of Whittier General Plan (General Plan Update or GPU) brings the document in conformance with the requirements of Article 5 (Authority for and Scope of General Plans) of California Government Code and addresses changes to the demographic, economic and environmental conditions in Whittier that are anticipated to occur through the year 2040. Article 5 requires that every city and county are required to have a general plan that functions as a comprehensive, long-range policy document.

For cities, the general plan guides the physical development of the incorporated city (e.g., city limit) and any land outside city boundaries (e.g., unincorporated sphere of influence area) that has a relationship to the city's future growth and development. A sphere of influence is a planning boundary outside of a city's legal boundary (such as the city limit line) that designates a city's probable future boundary and service area. The City of Whittier General Plan (General Plan) applies to a Planning Area comprised of the City of Whittier and the unincorporated Los Angeles County communities of West Whittier-Los Nietos and South Whittier. The project analyzed in this program Environmental Impact Report (EIR) is the adoption and long-term implementation of the General Plan.

3.1 – BACKGROUND

Under California law (Government Code Section 65300 et seq.), every city and county are required to have a general plan that functions as the overarching, comprehensive and long-range policy document. For cities, the general plan guides the physical development of the incorporated city and any land outside city boundaries (e.g., city limit) that has a relationship to the city's future growth and development. The City of Whittier General Plan, last updated in 1993, contains eight elements including: Land Use, Housing, Transportation, Environmental Resource Management, Air Quality, Public Safety, Noise, and Historical Resources. An implementation chapter accompanies the General Plan Elements. All elements are being comprehensively reevaluated and reorganized as part of the Envision Whittier General Plan Update. For example, the Safety and Noise Elements have been combined into the Safety, Noise and Health Element, the Open Space and Conservation Element is now the Resource Management Element, and the Circulation Element is now the Mobility and Infrastructure Element. The current General Plan contains 240 goals and policies, all focused on issue statements.

The Project analyzed in this program Environmental Impact Report (EIR) is the adoption and long-term implementation of the updated City of Whittier General Plan and any subsequent amendments to Title 18 (Zoning) of the Whittier Municipal Code (Zoning Code) adopted to implement the updated General Plan. This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code, § 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, § 15000 et seq.). This EIR is a Program EIR prepared in accordance with State CEQA Guidelines Section 15168. Section 15168 allows for the preparation of a Program EIR for a series of actions that can be characterized as a single project.

3.2 – LOCATION

The Planning Area is in southeast Los Angeles County approximately 12 miles to the southeast of downtown Los Angeles. The City is bordered by the unincorporated community of Hacienda Heights and the cities of La Habra Heights and Industry to the north/northeast. The City of Pico Rivera lies to the west, La Habra to the southeast and the Cities of Santa Fe Springs, La Mirada, Norwalk, and Orange County to the south. The regional context of Whittier is shown in Exhibit 3-1 and Exhibit 3-2 provides a more detailed view of the Planning Area, including City boundaries and Sphere of Influence areas.

3.3 – EXISTING CONDITIONS

Environmental Setting

The Planning Area comprises a total of 21.8 square miles. The City of Whittier encompasses 14.6 square mile most of which is developed with urban land uses. The remaining 7.2 square miles are with the City's unincorporated Sphere of Influence and use City services and community facilities. Several freeways and highways provide regional access to the Planning Area; Interstate 605 (I-605) runs along the western boundary; State Route 60 (SR 60) is five miles to the north; and, Interstate 5 (I-5) is approximately six miles to the south. Whittier Boulevard is a major commercial corridor and bisects Whittier from the northwest to the southeast and provides an alternative to freeway access to downtown Los Angeles and the City of La Habra. Colima Road runs north-south across the eastern part of Whittier, providing access to the San Gabriel Valley communities to the north.

Whittier is served by several transit providers: Metro, Norwalk Transit, Foothill Transit, Sunshine Shuttle, and Montebello Bus. Montebello Bus and Metro provide regional connections to East Los Angeles and downtown Los Angeles, and Los Angeles International Airport, respectively. Norwalk Transit provides north-south connection between El Monte in the north to Norwalk in the south. Norwalk Transit Route 7 stops at El Monte Station, which is a transfer point for the Metro Silver Line, Foothill Transit, El Monte Transit, and Greyhound Bus. Foothill Transit provides more localized service, with connections from Whittier to Baldwin Park and the City of Industry. Sunshine Shuttle, operated by the Los Angeles County Department of Public Works, provides local service with routes that connect centers within Whittier and Santa Fe Springs.

Elevations in the Planning Area range from 150 to 1,417 feet above sea level. The Planning Area's southeast area has low elevation. This region is almost completely developed. The northeast side of the City against the Puente Hills steadily increases in elevation. The Puente Hills Preserve extends from 400 to 1,417 feet above sea level. Terrain in the Puente Hills Preserve varies from moderate to very steep slopes covered in dense vegetation as depicted in Exhibit 3-3. The steep terrain and dense natural vegetation present potential wildland fire and slope failure hazards. The Puente Hills are geologically young in origin and tend to have unstable soils. North of the City, the Whittier earthquake fault zone runs northwest to southeast.

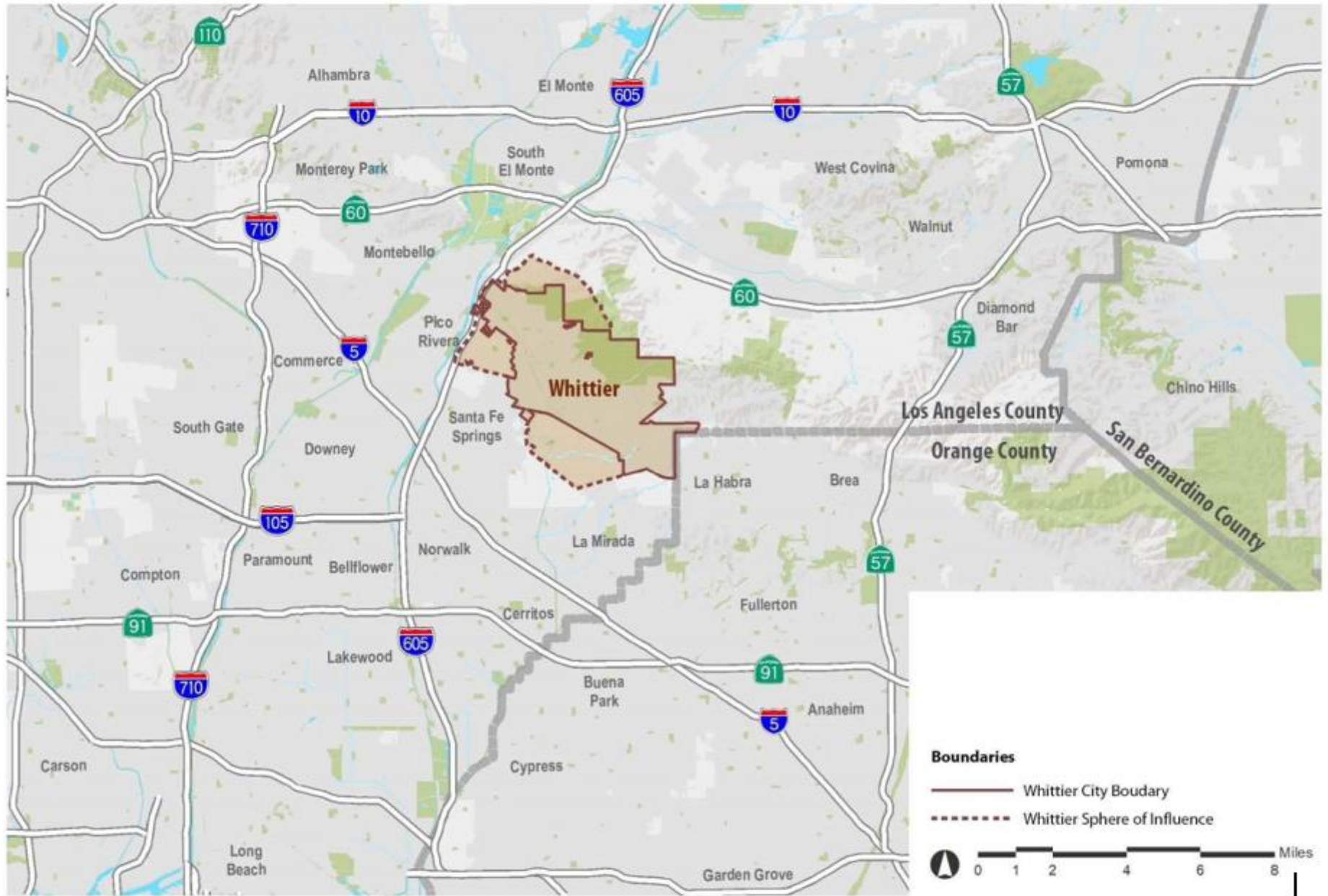
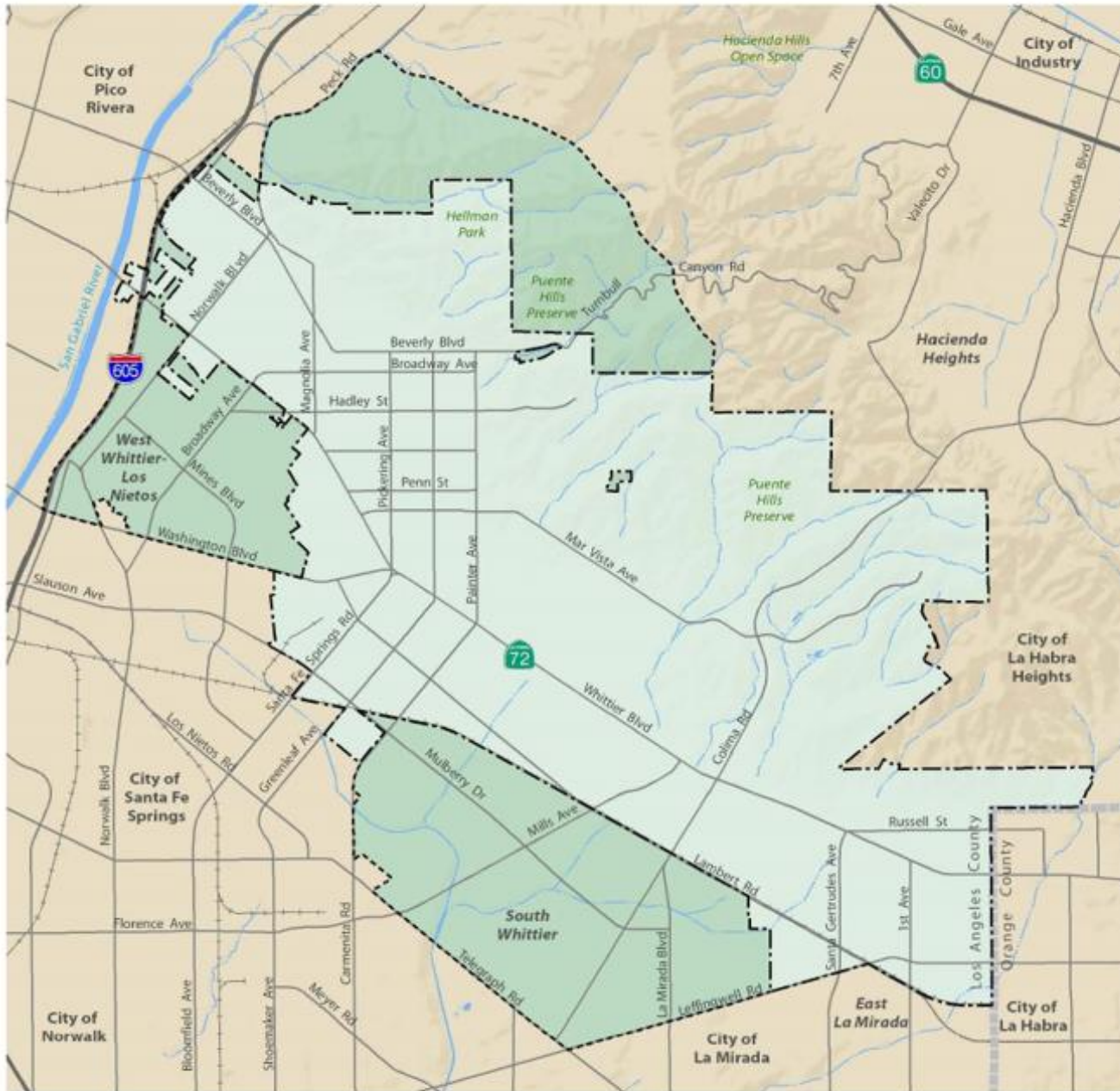


Exhibit 3-1 Regional Location
 Whittier General Plan Update EIR
 Whittier, California







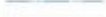

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Planning Area

-  Whittier City Boundary
-  Whittier Sphere of Influence

Base Map Features

-  County Boundary
-  Major Streets
-  Freeways
-  Railroads
-  River and Creeks
-  Waterbodies

Source: City of Whittier and American Community Survey, 2015.

Prepared by MIG, July 2017.



Exhibit 3-2 Planning Area

Whittier General Plan Update EIR

Whittier, California



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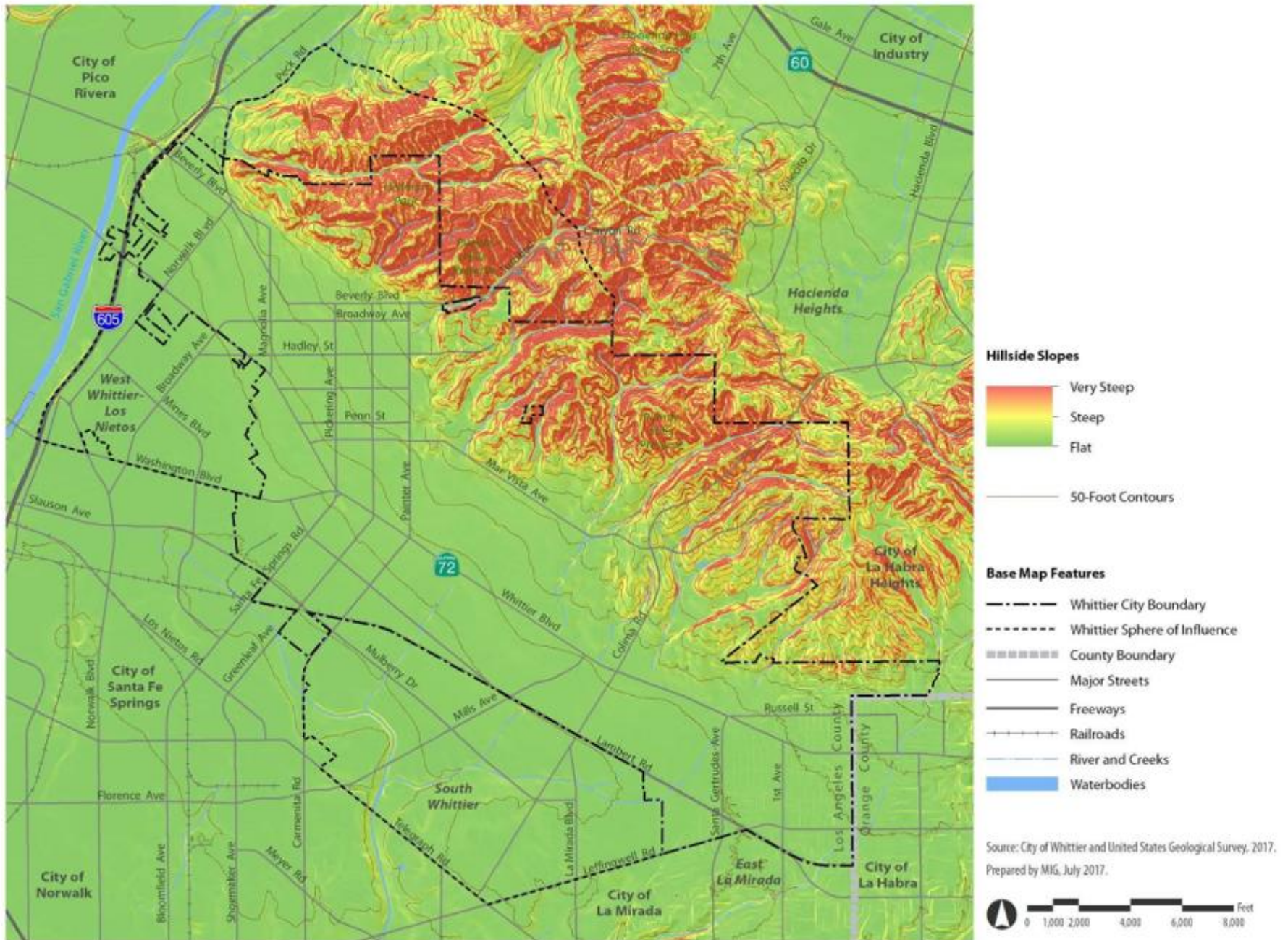


Exhibit 3-3 Topography and Slope
 Whittier General Plan Update EIR
 Whittier, California

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Whittier’s storm drain system is operated by the Los Angeles County Flood Control District (LACFCD). Stormwater endpoint discharge is the Pacific Ocean via the San Gabriel River and its tributaries -- Coyote Creek, La Mirada Creek, Leffingwell Creek, and Verde Creek. The San Gabriel River is impaired by pollutants, including metals (copper, lead, zinc) and selenium that are carried by stormwater. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials (such as galvanized steel) that are exposed to rain. The City is a co-permittee in the Los Angeles County National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit. Limited portions of the Planning Area are mapped as flood hazard zones with 0.2percent annual chance of inundation. These areas include portions of Whittier Boulevard, Hadley Street, Palm Avenue, and Jacmar Avenue.

Table 3-1 shows existing and projected demographics for the Planning Area including a separate breakdown for the City and areas with its Sphere of Influence. The estimated population for the Planning Area is 141,102 with 87,583 within the current corporate boundaries of the City and 53,518 in the Sphere of Influence. There are an estimated 33,764 jobs in the Planning Area with 26,133 in the City and 7,631 in the Sphere of Influence.

Existing Land Use

The City of Whittier contains nearly 34,000 parcels encompassing almost 7,915 acres (not including street rights-of-way). The Sphere of Influence adds an additional 4,591 acres to the Planning Area. Most development in the Planning Area is residential (6,979 acres), which accounts for more than half (53.8percent) of the total land area. Park and open space uses make up more than one-quarter of the Planning Area (25.2percent). Commercial and industrial land uses total 542 acres (4.3percent) and 148 acres (1.2percent), respectively. Table 3-2 provides a detailed acreage breakdown of existing land uses in the Planning Area.

Whittier has a variety of neighborhoods, each with a different feel and character. Uptown Whittier is characterized by tree-lined, narrow roads and is considered the de facto “downtown” or city center for Whittier. Typical buildings in the Uptown core include main floor retail uses, which often have office/commercial uses on upper floors. Residential development in Uptown is predominately smaller-scale multi-family buildings. Uptown is the oldest part of Whittier; many structures date to the late 1800s and early 1900s. Like Uptown, the westernmost portion of the City also has a concentration of older structures around Whittier Boulevard (west of Magnolia Street), many of which were built in the 1930s and 1940s. The northern hillside neighborhoods consist of lower-density, single-family residential developments, and natural open spaces. The Friendly Hills Country Club Golf Course is a prominent feature in the Friendly Hills area (near Colima Road, north of Whittier Boulevard). These areas have lot sizes larger than the more urbanized parts of the City, and very little commercial development is located in any of these areas. Commercial development outside of these areas generally occurs along Whittier Boulevard, Washington Boulevard, and Lambert Road. The neighborhoods behind these corridors are primarily single-family residential with a lower-density, suburban feel. Homes in the eastern part of the City are newer, with many structures built in the 1950s and 1960s. While Whittier is mostly built out, clusters of vacant land can be found in Uptown along Hadley Avenue and scattered smaller lots along Greenleaf Avenue.

Making up the largest land use category (55.8 percent of the Planning Area or 6,979 acres), residential uses are found throughout Whittier. Single-family (one unit) residential uses make up the bulk of the residential category (6,176 acres). Multi-family residential uses (more than one unit per development/lot) can also be found in various parts of the City but are clustered in the

area generally north of Whittier Boulevard and east of College Avenue. South of Whittier Boulevard, multi-family housing exists east of Painter Avenue. In other parts of the City, multi-family housing generally occurs along major roads and key intersections. Senior housing and manufactured (mobile home) developments make up a very small proportion all land uses (0.3percent combined).

Commercial areas in the incorporated areas make up 6.1percent of all land uses (482 acres) and 4.3percent in the Planning Area land uses. Most commercial uses are located along Whittier and Washington Boulevards and in Uptown around Greenleaf Avenue. Commercial clusters are also found at major intersections. Office uses occur in these same areas, with a concentration along Painter Avenue north of Whittier Boulevard. The most prevalent commercial uses are retail establishments and shopping centers, followed by office uses. Major shopping centers along Whittier Boulevard include the Whittwood Town Center (at Santa Gertrudes Avenue), the Quad (at Painter Avenue), and the Marketplace (between Philadelphia and Hadley Streets). Most industrial land in the Planning Area is located within City limits, comprises 138.4 acres, and is dedicated to general industrial, light and heavy manufacturing, and warehouse, distribution, and storage uses.

Parks and open space make up one quarter of the land use acreage in the Planning Area, and include the Puente Hills open space, City parks, Whittier Greenway Trail, and the Friendly Hills Country Club golf course. The City of Whittier park system has 23 parks, 444.6 acres of parkland and the 4.5-mile Whittier Greenway Trail. In addition to City parks, a State-owned park and three Los Angeles County parks provide open space easily accessible to Whittier residents. Residents also have access to an extensive trail system— Puente Hills Preserve —that lies along the northern border of Whittier and its Sphere of Influence.

Other public and quasi-public uses include schools (public and private), churches, hospitals, government offices, and utilities. The total land area devoted to public facilities and institutional uses is 960.4 acres or 7.7percent of the Planning Area. Public and private schools (K-12) occupy 436.7 acres or 3.5% of the Planning Area. Whittier College, located along Painter Avenue and encompassing 72 acres, is the only college in the Planning Area. The Savage Canyon Landfill, located in the north-central area of the City, just east of Whittier College, covers 129.2 acres. Hospital and clinic uses total 34.9 acres with two major hospitals, PIH Health Hospital (28 acres) and Whittier Hospital Medical Center (3.7 acres) making up the majority of that total. Several nursing/convalescent homes and other hospital support facilities are scattered citywide and make up the remaining 3.2percent of hospital and clinic uses in the Planning Area.

Vacant land totals 337.9 acres or 2.7percent of land in the Planning Area. Vacant properties are located primarily in single-family residential areas in the northern hillsides.

**Table 3-1
Whittier General Plan 2040 Projections**

City of Whittier (Incorporated)	Residential Units and Population						Non-Residential Building Square Footage, Jobs, Lodging Rooms, Students											
	Single Family		Multi-Family		Total		Commercial		Office		Industrial		Hotels/Motels		Public Facilities		Total	
	Units	Pop	Units	Pop	Units	Pop	Bldg SF	Jobs	Bldg SF	Jobs	Bldg SF	Jobs	Rooms	Jobs	Students	Jobs	Bldg SF	Jobs
Existing Conditions (Existing/Base - 2019)	19,512	57,062	10,156	30,521	29,668	87,583	4,111,213	9,764	1,562,118	7,413	1,707,949	3,416	742	668	14,936	4,261	9,683,017	26,133
Proposed Land Use (Future - 2040)	19,884	57,485	16,603	48,529	36,487	106,014	3,667,733	8,744	2,218,631	9,535	1,853,466	3,707	967	870	12,869	2,820	9,509,576	26,525
Change	373	423	6,447	18,007	6,819	18,430	-443,480	-1,020	656,513	2,122	145,517	291	225	202	-2,067	-1,441	-173,441	392
Percent Change	2%	1%	63%	59%	23%	21%	-11%	-10%	42%	29%	9%	9%	30%	30%	-14%	-34%	-2%	2%

Sphere of Influence (Unincorporated)	Residential Units and Population						Non-Residential Building Square Footage, Jobs, Lodging Rooms, Students											
	Single Family		Multi-Family		Total		Commercial		Office		Industrial		Hotels/Motels		Public Facilities		Total	
	Units	Pop	Units	Pop	Units	Pop	Bldg SF	Jobs	Bldg SF	Jobs	Bldg SF	Jobs	Rooms	Jobs	Students	Jobs	Bldg SF	Jobs
Existing Conditions (Existing/Base - 2018)	13,122	43,678	3,364	9,841	16,487	53,518	851,680	2,023	749,416	2,410	186,054	372	54	49	9,089	2,704	3,236,116	7,631
Proposed Land Use (Future - 2040)	13,221	44,008	3,941	11,270	17,162	55,278	995,058	2,363	921,350	2,902	234,356	469	0	0	9,423	2,675	3,584,793	8,635
Change	99	330	576	1,429	676	1,759	143,378	341	171,935	492	48,302	97	-54	-49	334	-29	348,677	1,004
Percent Change	1%	1%	17%	15%	4%	3%	17%	17%	23%	20%	26%	26%	0%	0%	4%	-1%	11%	13%

Planning Area	Residential Units and Population						Non-Residential Building Square Footage, Jobs, Lodging Rooms, Students											
	Single Family		Multi-Family		Total		Commercial		Office		Industrial		Hotels/Motels		Public Facilities		Total	
	Units	Pop	Units	Pop	Units	Pop	Bldg SF	Jobs	Bldg SF	Jobs	Bldg SF	Jobs	Rooms	Jobs	Students	Jobs	Bldg SF	Jobs
Existing Conditions (Existing/Base - 2018)	32,634	100,740	13,521	40,362	46,155	141,102	4,962,893	11,787	2,311,533	9,823	1,894,003	3,788	796	716	24,025	6,965	12,919,133	33,764
Proposed Land Use (Future - 2040)	33,106	101,493	20,543	59,799	53,649	161,291	4,662,791	11,108	3,139,981	12,437	2,087,822	4,176	967	870	22,292	5,494	13,094,369	35,160
Change	472	753	7,023	19,437	7,495	20,190	-300,102	-679	828,448	2,614	193,819	388	171	154	-1,733	-1,470	175,236	1,396
Percent Change	1%	1%	52%	48%	16%	14%	-6%	-6%	36%	27%	10%	10%	21%	21%	-7%	-21%	1%	4%

**Table 3-2
Existing Land Uses**

Land Uses	Whittier		Sphere of Influence		Planning Area Total	
	Acres	% of Land Uses	Acres	% of Land Uses	Acres	% of Land Uses
Residential	4,258.2	53.8%	2,720.9	59.3%	6,979.1	55.8%
Residential, Single-Family	3,663.0	46.3%	2,513.8	54.8%	6,176.7	49.4%
Residential, Duplexes and Triplexes	240.8	3.1%	57.0	1.3%	297.7	2.4%
Residential, 4+ Units	332.9	4.3%	117.4	2.6%	450.2	3.6%
Homes for Aged and Others	11.9	0.2%	0.6	0.0%	12.4	0.1%
Manufactured Housing	8.9	0.1%	18.0	0.4%	26.9	0.2%
Other Residential	0.8	0.0%	14.2	0.3%	15.0	0.1%
Commercial	482.2	6.1%	59.8	1.3%	542.1	4.3%
Retail and Commercial Services	125.2	1.6%	19.3	0.4%	144.5	1.2%
Shopping Centers	148.1	1.9%	16.1	0.4%	164.3	1.3%
Restaurants, Fast Food	34.0	0.4%	5.5	0.1%	39.4	0.3%
Auto Services/Service Stations	46.7	0.6%	6.2	0.1%	52.9	0.4%
Office (Professional/Medical)	86.7	1.1%	4.1	0.1%	90.7	0.7%
Financial Institutions (Banks)	9.3	0.1%	-	0.0%	9.3	0.1%
Public Storage	15.6	0.2%	6.9	0.2%	22.5	0.2%
Hotel/Motel	9.1	0.1%	1.7	0.0%	10.8	0.1%
Parking Lots (Associated with Commercial)	4.9	0.1%	-	0.0%	4.9	0.0%
Other Commercial	2.7	0.0%	-	0.0%	2.7	0.0%
Industrial	138.4	1.7%	9.9	0.2%	148.3	1.2%
General Industrial	7.5	0.1%	0.4	0.0%	7.9	0.1%
Light Manufacturing	59.8	0.8%	9.3	0.2%	69.1	0.6%
Heavy Manufacturing	21.2	0.3%	0.2	0.0%	21.5	0.2%
Warehousing, Distribution, Storage	47.8	0.6%	-	0.0%	47.8	0.4%
Other Industrial	2.1	0.0%	-	0.0%	2.1	0.0%

Table 3-2 Existing Land Uses Continued

Land Use	Whittier		Sphere of Influence		Planning Area Total	
	Acres	% of Land Uses	Acres	% of Land Uses	Acres	% of Land Uses
Parks and Open Space	1,995.9	25.2%	1,280.3	27.9%	3,276.2	26.2%
Parks	140.2	1.8%	15.2	0.3%	155.4	1.2%
Open Space	1,711.6	21.6%	579.0	12.6%	2,290.6	18.3%
Golf Course	144.1	1.8%	-	0.0%	144.1	1.2%
Cemetery	-	0.0%	686.2	14.9%	686.2	5.5%
Public Facilities and Institutions	664.7	8.3%	295.8	6.4%	960.4	7.70%
Government Facilities	80.5	1.0%	63.9	1.4%	144.4	1.2%
Utilities	9.0	0.1%	1.6	0.0%	10.6	0.1%
Hospitals and Clinics	34.2	0.4%	0.7	0.0%	34.9	0.3%
Religious Institutions/Facilities	87.0	1.1%	44.2	1.0%	131.1	1.0%
Landfill	129.2	1.6%	-	0.0%	129.2	1.0%
Other	0.4	0.0%	1.1	0.0%	1.5	0.0%
Public Schools	247.0	3.1%	157.7	3.4%	404.7	3.2%
Private Schools	5.4	0.1%	26.6	0.6%	32.0	0.3%
Colleges	72.0	0.9%	-	0.0%	72.0	0.6%
Other	150.3	1.9%	111.7	2.4%	262.0	2.1%
Mixed Use	5.7	0.1%	1.6	0.0%	7.2	0.1%
Parking Lots	51.6	0.7%	5.8	0.1%	57.4	0.5%
Club, Lodge Hall, Fraternal Organization	7.6	0.1%	-	0.0%	7.6	0.1%
Other Uses	85.4	1.1%	104.3	2.3%	189.7	1.5%
Vacant	225.4	2.8%	112.5	2.5%	337.9	2.7%
Vacant Residential	98.0	1.2%	11.3	0.2%	109.3	0.9%
Vacant Government Property	74.3	0.9%	-	0.0%	74.3	0.6%
Vacant Open Space	21.8	0.3%	93.2	2.0%	115.0	0.9%
Vacant Other	31.3	0.4%	8.0	0.2%	39.3	0.3%
Total	7,915	100%	4,591	100.0%	12,506	100%

Source: MIG existing land use survey, Los Angeles County Assessor data, and the City of Whittier, 2017.

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3.4 – PROJECT OBJECTIVES

The comprehensive update of the Whittier General Plan serves as the guide for the City’s future growth and development. The General Plan contains goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. The General Plan Update establishes the objectives listed below for the long-term growth and enhancement of the community.

1. Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. Create new housing opportunities for a full range of housing types and to increase housing affordability.
3. Strengthen the City’s industrial and office sectors.
4. Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
5. Strive for a downtown that showcases the City’s rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
6. Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
7. Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Ensure residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
8. Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

3.5 – PROJECT CHARACTERISTICS/GENERAL PLAN UPDATE

The General Plan Update is intended to achieve the land use, transportation, housing, and other goals of the City that reflect the community’s growth over the long-term. Table 3-1 compares existing and projected 2040 land use and demographic information for the City of Whittier, the Sphere of Influence, and the overall Planning Area. The 2040 planning horizon for the Planning Area is estimated to result in increases of approximately 472 single family dwellings, 7,023 multifamily dwellings, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year.

General Plan Elements

The City of Whittier General Plan Update succeeds the last comprehensive general plan adopted in 1993. The General Plan Update incorporates statutory requirements for general plans and guidance provided in the Office of Planning and Research 2017 General Plan

Guidelines; coordinates future development and policies with regional planning efforts and serves as the city’s fundamental guide in developing strategies to address greenhouse gas reduction, climate change, and climate planning. The EIR incorporates each of the elements goals, policies, and objectives of the following chapters in the adopted General Plan:

- Land Use and Community Character Element
- Mobility and Infrastructure Element
- Housing Element Update (2021-2029)
- Resource Management Element
- Public Safety, Noise, and Health Element
- Historic Resources Element
- Environmental Justice Element (Incorporated Throughout)

These goals, objectives, and policies are intended to maintain various potential environmental effects of the project at levels that are less than significant and is considered when evaluating the potential environmental impacts of implementing the General Plan. Chapter 4 of this document list goals, policies, and objectives from the General Plan. The Housing Element is updated for the 6th cycle and planned developments identified in the Land Use Element accommodates the Regional Housing Needs Allocation goal of 3,439 housing units, which represents a 11.5percent increase from the existing number of housing units within City boundaries.

Land Use and Community Character Element

The Land Use and Community Character Element directs Whittier’s long-term growth and physical development through the year 2040 by designating the future use of land within the corporate City limits and Whittier’s designated sphere of influence. The element identifies the planned locations, types, and intensity of housing, businesses, industries, open spaces, public buildings, and institutions. Policies intertwine land use and urban form by addressing building heights and orientation, design of the public realm (the space between buildings, including streets), and the public realm relationship to adjacent buildings. The Land Use and Community Character Element serves as a guide for decision-makers, residents, stakeholders, business owners, and property owners as it identifies and describes the type, intensity, and general distribution of land for housing, businesses, industries, and public facilities. Land use designations identify the general categories of activities permitted throughout the city.

The Land Use and Community Character Element frames all other General Plan elements since the use of land affects:

- The design, location, and extent of the circulation system (Mobility and Infrastructure Element)
- Where new housing development occurs (Housing Element)
- The conservation and utilization of natural resources, including the allocation of parks and open space resources (Resource Management Element)
- The city’s identity with distinctive architecture, preservation and restoration of landmarks, historic homes, and structures (Historic Resources Element)
- Quality of life indicators such as rates of chronic disease, local air quality, natural hazards, and exposure to contaminants (Safety, Noise, and Health Element)
- Extent of urban services and utilities (Mobility and Infrastructure Element)

In this element, the definition of each land use category includes not just the land use intent but also the three-dimensional aspects of development required to implement the vision for a district or neighborhood. For example, much of Whittier Boulevard is planned to accommodate mixed-use development at varying densities, dependent upon location along the boulevard. To implement the vision for an integrated, visually and physically connected mix of uses and attractive streetscape, the land use designations indicate the required urban design approaches. More specific implementing strategies—including the details for the community benefits incentives—are set forth in the zoning code and applicable specific plans. The goals and policies contained in the Land Use and Community Character Element provide guidance to plan for orderly growth, promote economic development, and protect natural resources. Exhibit 3-4 shows the existing General Plan Land Use Map and Exhibit 3-5 shows the proposed General Plan Land Use Map.

Mobility and Infrastructure Element

Whittier’s model for mobility in the 21st century deviates from traditional transportation planning. We propose to shift circulation and associated land use planning toward options that will improve environmental quality, encourage healthier lifestyles, support economic development, and provide options for safe alternative modes of transportation. To ensure a balanced, multi-modal transportation network, the Mobility and Infrastructure Element organizes streets and other transportation facilities according to typologies that consider the context and prioritize different travel modes for each street. Together, the typologies provide a network of “complete streets” to accommodate all types of local transportation modes. These typologies will guide the development of standards, to ensure transportation plans and improvements consider relationships to surrounding land uses, appropriate travel speeds, and the need to accommodate multiple travel modes and various users. This Element’s overarching mobility goal is to establish and maintain a balanced, multi-modal transportation network that gets us where we want to go safely and minimizes environmental and neighborhood impacts.

The infrastructure component of this Element addresses the physical facilities needed for the conveyance of vital services and functions such as water storage and distribution, wastewater collection and treatment, and storm drainage and flood control. These infrastructure systems represent the vital support network upon which we rely to maintain our daily activities. To preserve high levels of service in Whittier, ongoing maintenance, improvement, and replacement is required; and new development must ensure that new needs are met without burdening the current users.

Housing Element Update (2021-2029)

As required for every California jurisdiction, the City of Whittier updates its General Plan Housing Element on an eight-year cycle. In November and December 2020, the City hosted five community workshops to collect input on housing challenges, needs, and strategies from a board cross-section of residents and stakeholders. Due to the constraints on public gathering imposed by the Center for Disease Control, as a result of the novel COVID-19 virus pandemic, the workshops were held through an online platform, and were divided amongst Whittier’s four districts. The Housing Element presentations focused on legislative intent of housing law, population and housing characteristics in Paramount, how affordable housing is defined, and how can the City accommodate its Regional Housing Needs Assessment (RHNA) of 3,439 units. Workshops were advertised using City social media platforms (Facebook, Twitter, and Instagram), email blasts, and city website

Resource Management Element

The Open Space and Conservation Element focuses on preserving, protecting, conserving, reusing, and efficiently using Whittier’s natural resources. Natural resources include the lands, fossil fuels, water, wildlife, plants and trees, air, and other resources obtained from the Earth. Some resources are managed, such as landscaped parks. Other resources are meant to flourish through conservation, such as the varied habitats in the Puente Hills Preserve. This Element examines baseline conditions including water resources; air quality, greenhouse gases, and associated health effects; tribal resources; oil and gas resources; parks and open space; and urban forestry. The Element sets forth goals and policies that address natural resource conservation, preservation of scenic resources, protecting water resources, managing energy resources, reducing greenhouse gas emissions, protecting historic preservation and cultural resources, and promoting sustainable building practices.

Public Safety, Noise, and Health Element

The purpose of the Safety, Noise, and Health Element is to identify and minimize risks associated with natural and human-generated hazards through land use decisions and allocation of City resources. A dual purpose is to shape the physical environment and public services in ways that allow community members to thrive and reach their greatest potential. A dual purpose is to shape the physical environment and public services in ways that allow community members to thrive and reach their greatest potential. By proactively addressing potential hazards, the City looks to diminish threats posed to residents, businesses, and the local economy associated with flooding, earthquakes, wildfires, climate change and its effects, excessive noise levels, and the presence of hazardous materials. The Public Safety, Noise, and Health Element is categorized into six topic areas: emergency preparedness and safety services, natural hazards, pollution exposure, climate adaptation, environmental justice and community health, and noise. Emergency preparedness and safety services addresses emergency preparedness and police and fire services. Natural hazards address seismic hazards, wildfire hazards, and flood and dam inundation. Pollution exposure addresses hazardous materials, oil production, and contaminated sites. Climate adaptation is responding to climate change and long-term shifts in global or regional climate patterns. Environmental justice and community health addresses disadvantaged communities, pollution and population characteristics, community health and livability, and healthy homes. This element’s noise section examines the local noise environment and establishes standards to encourage noise-compatible land use patterns. Noise concerns focus on stationary sources like manufacturing and construction as well as roadway noise.

Historic Resources Element

The 1993 Whittier General Plan included an Historic Resources Element, the Envision Whittier General Plan updates the earlier Element. The City has chosen to include an Historic Resources because the community values its history and culture and seeks to identify goals and policies that promotes the preservation of historic and cultural resources. With a rich past worthy of preservation, the City has acted proactively with regard to historic preservation policies, as evidenced by the adoption of an optional Historic Resources Element in 1993. Efforts as early as the late 1970s worked toward revitalization of Uptown. Additionally, the City has received consistently high ratings from the non-profit, historic preservation county-wide advocacy organization the Los Angeles Conservancy in its *Historic Preservation Report Card*, last updated in 2014. The Historic Resources Element allows Whittier to consider its current programs, policies, and practices and establish a path to implement goals and policies that will continue its tradition of best practices in Historic Preservation.

Environmental Justice Element (Integrated Throughout)

As mandated by State law, the Environmental Justice Element must identify policies and objectives related to addressing and identifying health risks associated with overconcentration and proximity of industrial and polluting land uses to residences, reducing health risks through promotion of physical activities, improved housing conditions, and food access. The Whittier General Plan Update takes a holistic approach to this topic by incorporating environmental justice issues into each of the updated General Plan elements described above. Environmental justice issues are defined as those that promote community engagement in the public decision-making process, reduce the unique or compounded health risks in disadvantaged communities, and prioritize improvements and programs to address the needs of disadvantaged communities. Disadvantaged communities as defined by the State of California are communities (area, neighborhoods, or parts of neighborhoods) that are disproportionately burdened by multiple sources of pollution and with population characteristics that make them more sensitive to pollution. Some of Whittier's western neighborhoods are considered by the State to be disadvantaged communities in CalEnviroscreen Version 3.0. For all of Whittier, especially those western neighborhoods, it is critical that environmental justice be considered at every level of Envision Whittier's implementation. Like sustainability, environmental justice is also integrated into every Element. Envision Whittier policies and programs supporting the environmental justice goal through reducing pollution exposure; promoting public facilities, food access, safe and sanitary homes, physical activity, and adaptation to climate change; and promoting civil engagement are marked with a green global community symbol.

Zoning Map and Zoning Text Amendments

Title 17 (Subdivisions) and Title 18 (Zoning) of the Whittier Municipal Code is the primary tool for implementing the goals, objectives, and policies of the General Plan Update, pursuant to the mandated provisions of the State Planning and Zoning Law (Government Code Section 65000 et seq.), State Subdivision Map Act (Government Code Section 66410 et seq.), California Environmental Quality Act (Public Resources Code Section 21000 et seq.), and other applicable state and local requirements. The subdivision regulations, zoning map, zoning regulations, standards, permits and procedures that are contained in Title 17 and Title 18 and other parts of the Whittier Municipal Code, as applicable, will be revised following adoption of the General Plan Update to be consistent with its the goals, policies, exhibits and texts. The General Plan Update and accompanying zoning map and zoning text amendments include elimination of two Specific Plans: the Whittwood Town Center Specific Plan and the Whittier Boulevard Specific Plan. However, no changes to either the Uptown Whittier Specific Plan or the Lincoln (Nelles) Specific Plan are proposed. It should be noted that, even though the Whittwood Town Center Specific Plan is being rescinded, the zoning will still allow for a Specific Plan in the MU-3 zone and no overlay is proposed.

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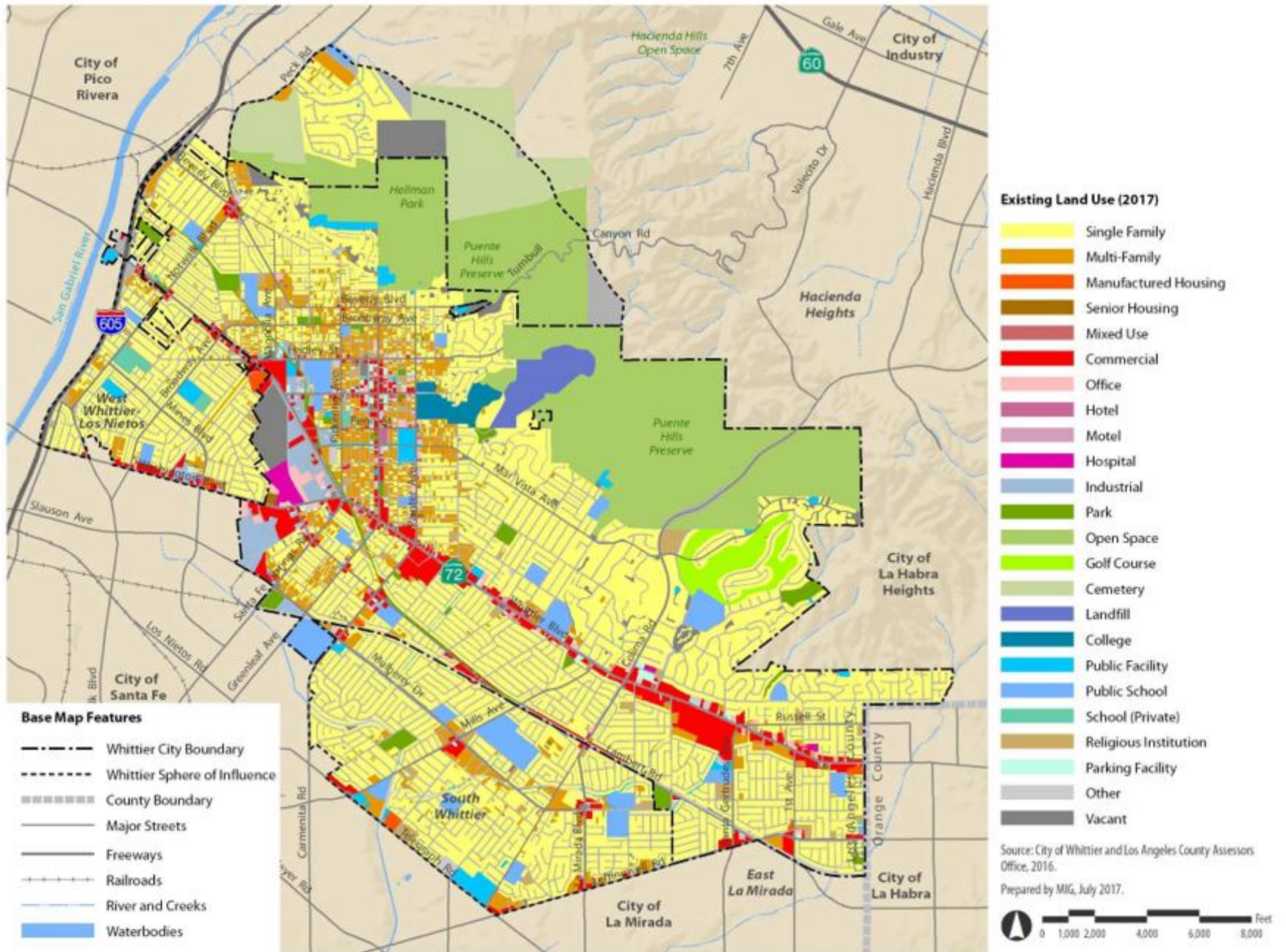


Exhibit 3-4 Existing Land Use Plan
 Whittier General Plan Update EIR
 Whittier, California

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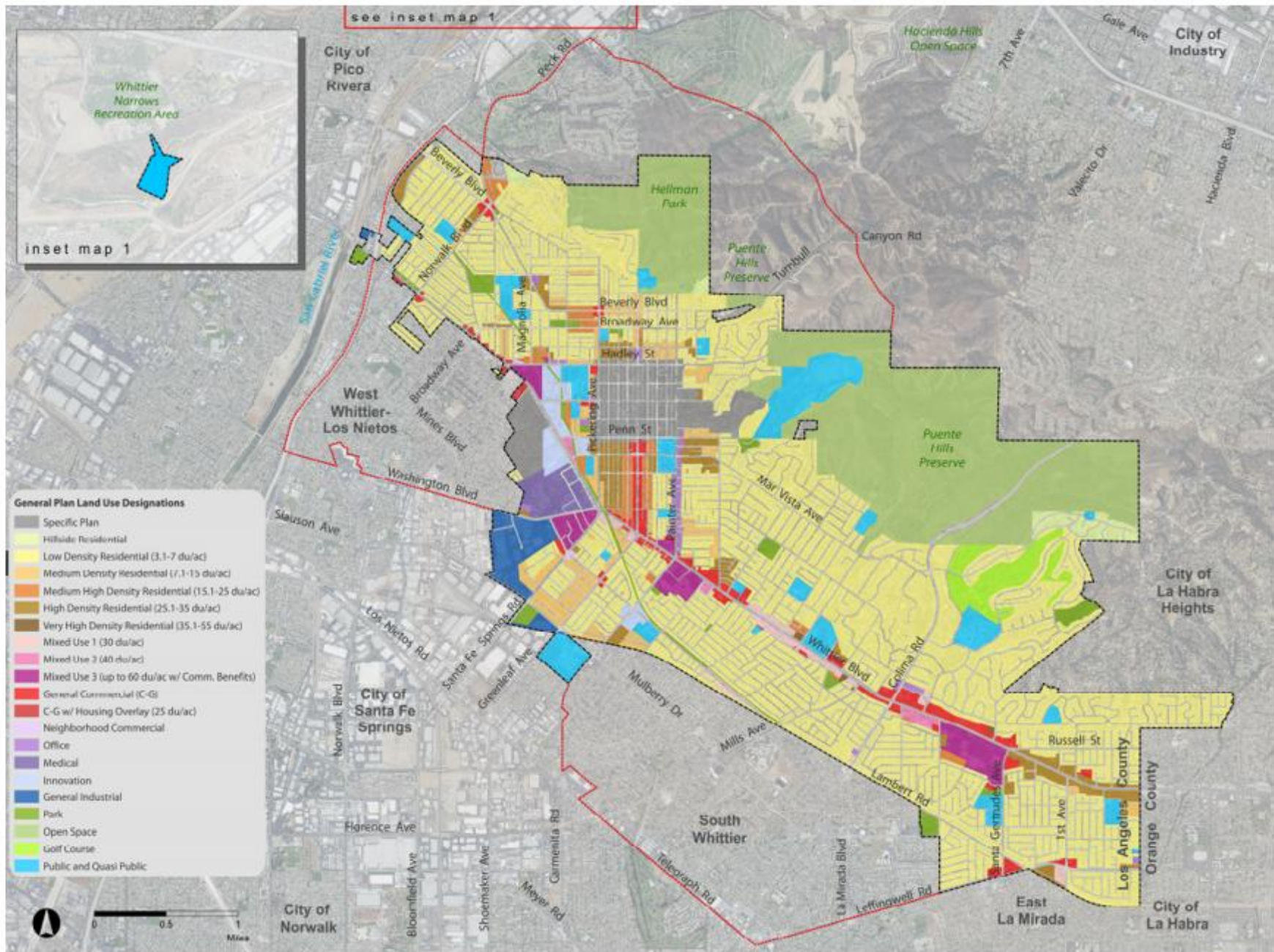


Exhibit 3-5 Proposed Land Use Plan

Whittier General Plan Update EIR

Whittier, California



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3.6 – INTENDED USES OF THIS EIR

The planning framework proposed in the General Plan Update would not result in the immediate construction of any new development nor entitlement of any new project. All new development within the City will continue to be subject to the City’s permitting, approval, and public participation processes. Elected and appointed officials along with City Staff will review subsequent project applications for consistency with the General Plan, applicable Specific Plans, and the Zoning Ordinance, and will prepare appropriate environmental documentation to comply with CEQA and other applicable environmental requirements.

Pursuant to Section 15168 of the State CEQA Guidelines, this EIR is a Program EIR. The goals, policies, land use designations, implementation programs, and other substantive components of the General Plan and implementing sections of the Zoning Ordinance comprise the “program” evaluated in this Program EIR. Subsequent activities undertaken by the City and project proponents to implement the General Plan will be examined considering this Program EIR to determine the appropriate level of environmental review required under CEQA. Subsequent implementation activities may include but are not limited to the items listed below.

- Rezoning of properties to achieve consistency with the General Plan.
- Updating and approval of Specific Plans and other development plans and planning documents.
- Review and approval of general plan amendments, specific plans, and zone changes.
- Approval of tentative maps, variances, conditional use permits, and other land use permits and entitlements.
- Approval of development agreements.
- Approval of facility and service master plans and financing plans.
- Approval and funding of public improvement projects.
- Approval of resource management plans.
- Issuance of permits and other approvals necessary for implementation of the General Plan.
- Issuance of permits and other approvals necessary for public and private development projects.

As the Lead Agency, the City also intends this EIR to serve as the CEQA-required environmental documentation for consideration by other Responsible Agencies and Trustee Agencies that may have limited discretionary authority over future project affected by the General Plan. Following certification of this Program EIR and adoption of the General Plan by the lead agency (City of Whittier), other agencies may use this Program EIR in the approval of subsequent implementation activities. These agencies may include but are not limited to those listed below.

Local Agencies

- City of Industry
- City of La Habra
- City of La Habra Heights
- City of La Mirada
- City of Norwalk
- City of Pico Rivera
- City of Santa Fe Springs

3 – Project Description

- County of Los Angeles
- County of Orange
- Gateway Cities Council of Governments
- Puente Hills Habitat Preservation Authority

Regional and State Agencies

- Los Angeles County Local Agency Formation Commission (LAFCO)
- Los Angeles County Flood Control and Water Conservation District
- Los Angeles County Metropolitan Transportation Authority
- Southern California Association of Governments (SCAG)
- California Department of Fish and Wildlife
- California Department of Conservation
- California Department of Housing and Community Development (HCD)
- California Department of Transportation (Caltrans)
- California Department of Toxic Substance Control
- Regional Water Quality Control Board, Los Angeles Region
- South Coast Air Quality Management District

Federal Agencies

- U.S. Fish and Wildlife Service

4.1 – Aesthetics

This EIR Chapter addresses potential impacts on scenic vistas and scenic resources, the potential of the General Plan Update (GPU) to degrade the visual character or quality within the Planning Area and surrounding areas, and the potential of the GPU to create substantial and adverse light and glare.

4.1.1 – ENVIRONMENTAL SETTING

The Planning Area is situated in the east San Gabriel Valley with views of the Los Angeles Basin and San Gabriel Valley as well as the surrounding mountain ranges, including the San Gabriel Mountains to the north and San Bernardino Mountains to the east, which can be both snow-capped during the winter months. Elevations in the City range from 150 feet above mean sea level (AMSL) to 1,417 feet AMSL. The south and southeast portions of the City are relatively flat with elevations increasing in the northwest portion of the City against the Puente Hills. The higher elevation areas of the City near the Puente Hills have superior views compared to the other portions of the City. On clear days views of the Pacific Ocean and Channel Islands are possible from higher elevations within Whittier. The Puente Hills Preserve is located in the northeast portion of City with elevations ranging from 400 feet AMSL up to 1,417 feet AMSL. The Planning Area contains a variety of neighborhoods, each with a different feel and character. Developed areas of Whittier largely occur on the flat or gently sloping terrain in most of the City and Planning Area except for the steeper areas in the Puente Hills in the northeastern portions of the Planning Area.

Scenic Vistas

Scenic vistas are defined in this document as natural landscapes that provide views of unique flora, geologic or other natural features that are generally free from urban intrusions. Typical scenic vistas include views of mountains and hills, large, uninterrupted open spaces and waterbodies. Scenic vistas generally play a large role in the way a community defines itself and also affects development patterns as projects are designed to take advantage of viewsheds. Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of the vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The Puente Hills are visible to the north and east of the Planning Area. The Puente Hills are the major topographic and open space feature in the area. The Puente Hills provide an intact natural backdrop to the City of Whittier; the hills support trees and visible rock outcrops as well as a variety of vegetation (CMCA, 2007). Much of the Puente Hills is either formally designated as a preserve or is protected through General Plan policies and programs. The Puente Hills can be seen from many locations within the Planning Area, particularly from through-streets that provide unobstructed views to the east/northeast. Many other streets offer views of the Puente Hills, however, the streets with unobstructed views provide a wider, less obstructed viewshed of the hills, which helps connect the Planning Area to the natural environment. Protection of these views has long been a priority, and most homes and new developments in the Planning Area have been one- and two-story, largely preserving existing views of the nearby Puente Hills (Whittier, 2017).

Scenic Resources

While scenic vistas form a complete viewshed, scenic resources are occurrences of aesthetically pleasing features. Examples of the natural scenic resources include rock

4.1 - Aesthetics

outcroppings, trees, prominent ridgelines, slopes and hilltops. As previously described, the Puente Hills form the most significant scenic resource in the Planning Area, creating a distinguishable topographic feature that defines many of the views in the area. Scenic resources can also be man-made, such as architecturally distinctive or historic buildings, historic points of interest, or historic roadways or highways. The Planning Area includes the Uptown Whittier area which is characterized by tree-lined, narrow, cobble-stoned roads (Whittier, 2017). Typical buildings in the historic core include ground-level retail uses which often have office/commercial uses on upper floors. Residential development in Uptown is predominantly smaller-scale multi-family buildings. Uptown is the oldest part of Whittier with many structures dating to the late 1800s and early 1900s. The westernmost portion of the Planning Area also has a concentration of older structures around Whittier Boulevard (west of Magnolia Street), many of which were built in the 1930s and 1940s. Homes in the eastern portion of the Planning Area are newer, with many structures built in the 1950s and 1960s. There are no historic roadways or State designated scenic highways within the Planning Area.

The Planning Area also includes a number of view corridors, gateways, and landmarks which can be considered scenic resources. Exhibit 4.1-1 (Corridors, Gateways, and Landmarks) illustrates the location of the Planning Area's view corridors, major and minor gateways, and key landmarks. "View corridors" are human-made or natural features that afford line-of-sight views of distant visual resources such as peaks, ridgelines, and valleys (CMCA, 2007). In the Planning Area, a variety of scenic or view corridors are formed along key major roadways. Turnbull Canyon, Skyline Drive, La Cuarta and Colima which are currently designated as Scenic Corridors and Beverly Blvd., Hadley, Greenleaf, Painter, Whittier Blvd and portion of Colima which are considered Design Corridors.

In general, streets oriented in a northwest-southeast direction have views of the Puente Hills when looking to the north, while many of the east-west streets have similar views of the Puente Hills to the east. Views to the south and west do not offer views of natural features; however, a vast urban view corridor is created by the street grid as it slopes down and away from the Planning Area. Beverly Boulevard is situated at the northern end of the Planning Area and creates a major view corridor that is both natural and urban in nature. Painter Avenue is located along the eastern boundary of the Planning Area and acts a major view corridor within the Uptown District of the Planning Area. A mix of uses can be found along Painter Avenue, while large, mature trees line the sidewalks and hang over much of the street, creating a unique atmosphere. An additional component to this view corridor is Whittier College, which is located on the east side of the street and provides additional open space views in the form of lawns and meeting areas (Whittier, 2017).

"Gateways" are entry points that announce arrival into the Planning Area and can be a defining characteristic for a City. Whittier Boulevard provides two major gateway entry points into the Planning Area. Other gateways include Beverly Boulevard at I-605, the Lambert Road/Colima Road intersection, and the Lambert Road/Washington Boulevard intersection. Minor gateways occur on Colima Road, Lambert Road, and Greenleaf Avenue. As of 2017, most of these entryways did little to identify and celebrate Whittier. A "landmark" is a physical element that provides a point of reference or serves as a community identity marker. Exhibit 4.1-1 shows City landmarks are a national or state site, a park, or community facilities. Landmarks also provide an opportunity to showcase local cultural assets and features (Whittier, 2017). Table 4.1-1, below, identifies key local historic, civic, natural, and commercial landmarks in the Planning Area.



Base Map Features

- Whittier City Boundary
- - - Whittier Sphere of Influence
- ||||| County Boundary
- Major Streets
- Freeways
- - - Railroads
- River and Creeks
- Waterbodies

City Gateways

- Major Entry Gateways
- Minor Entry Gateways

Landmarks

- National/State Historic Sites
- Parks
- Community Facilities

Key Corridors

- Whittier Corridor
- Major Corridor
- Minor Corridor
- Uptown Key Streets
- Greenway Trail



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Exhibit 4.1-1 Corridors, Gateways, & Landmarks

Whittier General Plan Update
Whittier, California



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**Table 4.1-1
Local Landmarks Within the Planning Area (2017)**

Historic	Civic/Institutional	Natural/Recreation	Commercial
<ul style="list-style-type: none"> • 7 National Register of Historic Places • 24 California Register of Historic Places • 100+ Local Register of Historic Resources • 4 Historic Districts • Pio Pico State Historic Park 	<ul style="list-style-type: none"> • City Hall • Central Library and Branch Library • Community Center • Community Theatre • Senior Center • Transit Depot • Whittier College • PIH Health • Whittier Hospital Medical Center • Former Fred C. Nelles Youth Correctional Facility 	<ul style="list-style-type: none"> • 28 Parks in Planning Area • Whittier Greenway Trail • Puente Hills Preserve • Puente Hills • Friendly Hills Country Club 	<ul style="list-style-type: none"> • Uptown Whittier • Whittier Boulevard Corridor • Quad at Whittier • Whittwood Town Center • Whittier Marketplace

Source: *Envision Whittier Existing Conditions Atlas, 2017.*

Visual Character

The visual character of the Planning Area varies by location as there are distinct districts and neighborhoods that exhibit their own nature and character. Residential neighborhoods are located throughout the Planning Area. Residential neighborhoods in the northern portion of the Planning Area consist largely of single-family homes, while residential development in the southern portion of the Planning Area has a higher proportion of multi-family residential units. The older neighborhoods are located more in the north and west sides of the City and include historic landmarks and four historic districts. Housing from the early 1900s is predominantly Craftsman but includes other traditionally defined architectural styles. Post WWII housing was less distinctive architecturally with minimal traditional homes. New homes built in east and south areas of the City were more contemporary housing styles of the 1960s and 1970s. Beginning in the 1980s the City experienced an increase in multi-family development with less distinctive architectural styles.

Much of the multi-family development within the Planning Area was constructed during the 1960s and 70s, provides a different sense of identity compared to the older single-family neighborhoods. The multi-family developments consist mainly of apartment buildings that are several stories in height, with plain facades with straight rooflines and less variety in articulation. Streets in residential areas are planted with mature trees that offer ample shade for pedestrians. Additionally, sidewalks for pedestrian movement are provided throughout the Planning Area.

Distinct and traditional commercial districts exist within the Planning Area and are primarily located in the central portion of the Planning Area in the Uptown District and along major corridors such Whittier Boulevard, Washington Boulevard, and Lambert Road (Whittier, 2017). The neighborhoods around these corridors are primarily single-family residential with a lower-density, suburban feel. Commercial services and retail uses in Uptown are more walkable and more dense, while commercial areas in other parts of the City are more oriented toward the automobile with large shopping centers and large parking lots as seen along Whittier Blvd.

Additional commercial development is located throughout the Planning Area; however, these commercial areas are not as dense as those provided along the commercial corridors mentioned above. The commercial districts contain mostly one, two and three-story buildings,

4.1 - Aesthetics

with shop-fronts as the dominating feature on the first floor of most structures. There are a few buildings of six or more stories in the more dense Uptown area of the City, and many historic buildings are located within residential and commercial areas of the City and help to enhance the visual quality of the Planning Area. The commercial districts provide a variety of specialty stores, restaurants, professional services, farmer's markets, grocery stores, health and wellness, and boutique services. Although vacancies and inconsistent improvements have somewhat marred the view in these areas, the streetscape remains relatively intact.

Night Skies

The Planning Area is generally built out with scattered open space and undeveloped parcels. Night skies are dominated by urban and suburban lighting in the more developed portions of the Planning Area. During the day, sunlight reflecting from roadways and structures is a primary source of glare, while nighttime light and glare consists of both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, interior lighting, decorative landscape lighting, and streetlights. The principal mobile source of nighttime light and glare is vehicle headlamp illumination.

4.1.2 – REGULATORY FRAMEWORK

State

California Scenic Highway Program

Created by the California Legislature in 1963, the Scenic Highway Program was established to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A scenic highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. When a City or County nominates an eligible scenic highway for official designation, it defines the scenic corridor, which is land generally adjacent and visible to a motorist on the highway. State Laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263.

Local

City of Whittier General Plan

The City's existing 1993 General Plan contains the following goals and policies and programs which address visual quality:

Environmental Resource Management Element

Goal 1.0: Preserve or conserve natural and cultural resources that have scientific, educational, economic, aesthetic, social, and cultural value.

Policy 1.2 Encourage practices that stress soil conservation as a means to retain native vegetation, maximize water infiltration, provide slope stabilization, allow scenic enjoyment, and reduce flood hazards.

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 1.5 Encourage property owners to preserve areas with native vegetation, wildlife habitat, and visual beauty.

Issue: Scenic Roadways and Corridors

Goal 6.0: Maintain amenities along major roadways which provide beauty, identity, and form to the community and to neighborhoods within the community.

Policy 6.1 Upgrade entryways and areas along major thoroughfares through the City.

Policy 6.2 Protect scenic corridors that have aesthetic, recreational, cultural, or historic values.

Policy 6.3 Identify the portions of the street system which, together with the adjacent scenic corridors, require special scenic treatments.

Land Use Element

Goal 6: Encourage the retention and development of parkways, median strips, green belts, bike trails, and other open landscape areas, which provide scenic variety and aesthetic improvement.

Policy 6.1 Promote the retention and development of landscaped buffer zones along major thoroughfares, streets, and railroad lines.

Policy 6.2 Promote the maintenance and development of sidewalks and planted parkways along Whittier's streets and promote the planting and maintenance of parkway trees.

City of Whittier Zoning Ordinance

The zoning ordinance establishes city-wide setbacks, parking and sign standards, building height limits, and building densities that affect and public and private views. Additionally, there are specific plans that provide separate design and planning standards for development within the specific plan areas.

4.1.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to aesthetics if it would:

- a) Have a substantial adverse effect on a scenic vista;
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? or
- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to aesthetics, which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

Scenic Vistas

Impact AES-1 – Would the GPU have a substantial adverse effect on a scenic vista?

Analysis of Impacts

The Puente Hills to the northeast are visible from many places within the Planning Area. Other areas of the Planning Area experience views of the San Gabriel Mountains to the north. Existing views of the Puente Hills and San Gabriel Mountains can be, depending on location within the Planning Area, partially obscured by buildings, trees telephone and power lines, cell towers or other structures typical of an urban environment. Although such obstructions are usually minimal in nature, they do exist and they are typical of any type of built/urbanized environment.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to scenic vistas - please see Appendix B for the full text of each goal or policy.

Land Use Element

Goal 1: A city of complete neighborhoods.

Policies

LUCC-1.1: Retain the unique characters of long-established residential neighborhoods.

LUCC-1.2: Maintain the quality and character of established housing stock and historic residential neighborhoods.

LUCC-1.3: Accommodate population growth and projected demographic shifts with a range of housing options.

LUCC-1.4: Require new and infill development be sensitive to neighborhood context, building form, and scale.

LUCC-1.5: Ensure all residential streets provide a safe, comfortable, and enjoyable pedestrian experience, with design elements to include street trees and sidewalks.

LUCC-1.6: Identify transition areas between lower-density land uses adjacent to higherintensity development to ensure new and infill development transitions well to established uses.

LUCC-1.7: Provide City programs that encourage neighborhood beautification and residents' efforts to participate and take pride in their neighborhoods.

Goal 2: A network of great streets and public spaces that encourage social and economic activity.

Policies

LUCC-2.1: Activate and improve the pedestrian experience along Whittier Boulevard and Lambert Road [summarized, see Appendix B]

LUCC-2.2: Establish a continuity of streetscapes along Whittier Boulevard and Lambert Road that define the public realm, are scaled to the pedestrian experience, and reflect the City's cultural identity through public art, street furniture, landscaping, architectural character, materials, etc.

LUCC-2.3: Concentrate mixed-use development at designated nodes and catalyst sites (see Figure LUCC-1) along Whittier Boulevard and Lambert Road to provide opportunities for clustering similar and compatible uses, support economic development, and create and maintain vibrant pedestrian-oriented spaces and experiences.

LUCC-2.4: Develop objective design standards and guidelines for each land use designation within the Whittier Municipal Code, ensuring the integration of the intent, character, and built form considerations outlined in this General Plan.

Goal 3: Distinctive and successful mixed-use and transit-oriented districts.

Policies

LUCC-3.1: Continue to encourage private and public investment in Uptown, with public improvements that support pedestrian activity, park-once strategies, and the enjoyment of being outdoors. Ensure that land use policies for Uptown allow for a diversity of businesses and residential densities that meet housing needs for people in all life stages.

LUCC-3.2: Support the reinvention of aging commercial properties as mixed-use developments and districts that integrate housing, retail, dining, entertainment, and office in both vertical and horizontal configurations, and that provide connections among all uses within the developments/districts.

LUCC-3.3: Promote development surrounding the Metro L Line station that provides transit-supportive housing types/densities and businesses that contribute to a lively living environment.

LUCC-3.4: Encourage the growth of medical-related and health care businesses surrounding the PIH Health Hospital – Whittier to create a regional center for medical care, research, and technology businesses.

LUCC-3.5: Update the Whittier College Master Plan/Specific Plan to provide for the college to integrate well into the surrounding neighborhood and serve as a continuing asset to the greater Uptown area and Whittier as a whole.

Goal 5: Urban recreation and open spaces and experiences that contribute to complete neighborhoods for all residents.

Policies

LUCC-5.1: Encourage active living, physical activity, health, and wellness by creating and maintaining a green network that provides equitable access to recreational facilities, parks, trails, greenways, open spaces, gardens, etc.

LUCC-5.2: Encourage new uses along Lambert Road to orient or otherwise provided direct public access to the Greenway Trail to activate the corridor, provide a link between Lambert Road and Whittier Boulevard, and promote walking, biking, and alternative modes of travel citywide.

Historical Resources Element

Goal 2: Update the City's Historic Preservation Program to align with best practices.

Policies

HR-2.1: Enhance, restore, preserve, and protect, as appropriate, historic resources throughout Whittier.

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HR-2.2: Encourage the retention and/or adaptive reuse of historic residential, commercial, and industrial buildings.

HR-2.3: Consider relocation of structures with officially designated landmark status to vacant sites within established districts when no other alternative exists for their preservation, or if a particular structure is not protected by ordinance.

HR-2.4: Provide guidance to the owners of designated historic landmark sites to preserve and rehabilitate structures.

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community's recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.2 Enhance the urban forest along street corridors, in parks, and on City-owned properties to provide soil stabilization and erosion reduction as well as reduce flood hazards.

General Plan Analysis. Land Use Element Goal 1 and its attendant policies work to protect views along both major and minor visual corridors in the City that are within and/or serve residential neighborhoods. Goal 2 and its policies help protect views along major roadways and from public spaces. Land Use Element Goal 5 plus Resource Management Element Goals 1 and 2 and their policies provide protection for various visual resources in the Planning Area especially in open space areas. Finally, Goal 2 from the Historic Resources Element seeks to protect historic buildings and facilities many of which contribute to the overall visual character and scenic views within the urbanized portions of the Planning Area.

Summary and Conclusions. These various goals and policies demonstrate the City's commitment to protecting visual resources and scenic vistas. These goals and policies will help protect views along major corridors like Whittier Boulevard, Carmenita Road, and Colima Road, as well as views along minor corridors such as Beverly Boulevard and Mar Vista Avenue. They will encourage future development that contributes to a high quality of life for its residents, employees, and visitors including the protection of visual resources. Although the General Plan Update will over time result in somewhat more intensive and higher density uses, visual impacts, if any, on scenic vistas would be minimal given that these views are already affected by the existing built environment, and the City is already largely built out. Therefore, potential GPU impacts with respect to scenic vistas would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Scenic Resources/Scenic Highways

Impact AES-2 – Would the GPU substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Analysis of Impacts

The nearest officially designated state scenic highway, State Route 91 (SR-91), is located more than 14 miles southeast of the City of Whittier in Anaheim Hills and would not be visible to motorists within the Planning Area. While scenic vistas form a complete viewshed, scenic resources are occurrences of aesthetically pleasing features. Examples of natural scenic resources include rock outcroppings, trees, prominent ridgelines, slopes and hilltops. Scenic resources can also be man-made, such as architecturally distinctive or historic buildings, historic points of interest, or historic roadways or highways.

As previously described, the Puente Hills form the most significant scenic resource in the Planning Area. It provides views from the Planning Area of distinguishable topographic features in the hills northeast of the City. In addition, the urbanized portions of the Planning Area also contain view corridors, gateways, and landmarks which can be considered scenic resources.

2021 General Plan Update. Although there are no scenic highways within the Planning Area, provided below are the applicable goals and policies from the proposed GPU - please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community's recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

General Plan Analysis. Resource Management Element Goal 1 and its policies will help protect long-term views from the City and within the Planning Area by helping protect natural resources of the Puente Hills, although there are no officially designated scenic highways within or proximate to the City.

Summary and Conclusions. Although the General Plan Update will over time result in somewhat more intensive and higher density uses, no state scenic highways occur within or in

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close proximity to the Planning Area so there will be no impacts in that regard. Moreover, impacts to scenic resources would not occur because the GPU would not allow for development in the Puente Hills that is not already allowed and because the GPU would not allow for development within the historic Uptown area that is inconsistent with state and local regulations covering architecturally distinctive/historic buildings or historic points of interest. Therefore, implementation and development of the proposed General Plan Update would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and potential impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Existing Visual Character

Impact AES-3 – In non-urbanized areas, would the GPU substantially degrade the existing visual character or quality of public views of the site and its surroundings? Public views are those that are experienced from publicly accessible vantage point. If the project is an urbanized area, would the GPU conflict with applicable zoning and other regulations governing scenic quality?

Analysis of Impacts

While much of Whittier is considered urban, there are areas designated for hillside development near the Puente Hills that could be considered rural or non-urbanized to some degree. Buildout of the General Plan Update is anticipated to occur over a period of approximately 20 years. Temporary impacts to the visual character and quality of the area could occur during construction activities, although they would be limited and temporary in nature. Typical construction activities would include site preparation, grading, installation of public and private utilities, building construction, application of architectural coatings, paving of surface parking areas, public improvements, and installation of landscaping, and roadway improvements. Construction equipment including, but not limited to, backhoes, excavators, graders, rubber-tired dozers, crushing machines for concrete and asphalt, and hauling trucks and materials may be present during construction activities.

During future construction activities, project sites within the Planning Area would undergo temporary transformations in visual character. For example, at the onset of construction, structures and asphalt parking lots would be demolished and sites would be graded. During future construction, vacant graded sites would be a temporary visual experience to receptors as the pouring of building foundations and framing of buildings during vertical construction would reintroduce permanent vertical forms to the project site. This characterization would also be temporary until building construction, paving and site landscaping is completed. Visual changes to project sites within the Planning Area would be experienced temporarily and project sites would progressively transition from active construction zones to finished development. Due to the temporary nature of construction, the visual changes anticipated during construction of future projects within the Planning Area would not be permanent and would not substantially degrade its visual character or the visual character of surrounding areas. Therefore, construction impacts on visual character would be less than significant.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to visual character - please see Appendix B for the full text of each goal or policy.

Urbanized Areas

Land Use and Community Character Element

Goal 1: A city of complete neighborhoods.

Policies

LUCC-1.1: Retain the unique characters of long-established residential neighborhoods.

LUCC-1.2: Maintain the quality and character of established housing stock and historic residential neighborhoods.

LUCC-1.4: Require new and infill development be sensitive to neighborhood context, building form, and scale.

LUCC-1.5: Ensure all residential streets provide a safe, comfortable, and enjoyable pedestrian experience, with design elements to include street trees and sidewalks.

LUCC-1.6: Identify transition areas between lower-density land uses adjacent to higher intensity development to ensure new and infill development transitions well to established uses.

LUCC-1.7: Provide City programs that encourage neighborhood beautification and residents' efforts to participate and take pride in their neighborhoods.

Goal 2: A network of great streets and public spaces that encourage social and economic activity.

Policies

LUCC-2.3: Concentrate mixed-use development at designated nodes and catalyst sites (see Figure LUCC-1) along Whittier Boulevard and Lambert Road to provide opportunities for clustering similar and compatible uses, support economic development, and create and maintain vibrant pedestrian-oriented spaces and experiences.

LUCC-2.4: Develop objective design standards and guidelines for each land use designation within the Whittier Municipal Code, ensuring the integration of the intent, character, and built form considerations outlined in this General Plan.

Goal 5: Urban recreation and open spaces and experiences that contribute to complete neighborhoods for all residents.

Policies

LUCC-5.1: Encourage active living, physical activity, health, and wellness by creating and maintaining a green network that provides equitable access to recreational facilities, parks, trails, greenways, open spaces, gardens, etc.

Historical Resources Element

Goal 2: Update the City's Historic Preservation Program to align with best practices.

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Policies

HR-2.1: Enhance, restore, preserve, and protect, as appropriate, historic resources throughout Whittier.

Non-Urbanized Areas

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community's recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

General Plan Analysis. Land Use Element Goal 1 and its attendant policies work to protect views along both major and minor visual corridors in the City that are within and/or serve residential neighborhoods which are in urbanized areas. Goal 2 and its policies help protect views along major roadways and from public spaces (also in urbanized areas). In addition, Goal 2 from the Historic Resources Element seeks to protect historic buildings and facilities many of which contribute to the overall visual character within the urbanized portions of the Planning Area. Finally, Land Use Element Goal 5 plus Resource Management Element Goals 1 and 2 and their policies provide protection for various visual resources in the Planning Area especially in open space or non-urbanized areas (like the Puente Hills).

Summary and Conclusions. Future development under the GPU in both urban and non-urban areas will continue to promote and protect visual resources for all residents and visitors to the Planning Area. With the continued application of City zoning standards and design requirements, future developments would not substantially degrade the existing visual character or quality of the Planning Area and its surroundings and potential impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Light and Glare

Impact AES-4 – Would the GPU create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Analysis of Impacts

Existing lighting within the Planning Area is typical for urbanized areas during nighttime hours and includes streetlights, traffic signals, security lighting around businesses and homes, auto headlights and illuminated business signs. New uses and developments may result in an

increase in the number of lighting sources currently within the Planning Area; however, given that it is already developed, such increases are expected to be minimal in nature.

According to the Land Use and Community Character Element, the term pedestrian amenities includes lighting as do references to new buildings, rehabilitation of existing buildings, and street improvements throughout the General Plan Elements.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to light and glare - please see Appendix B for the full text of each goal or policy.

Land Use Element

Goal 1: A city of complete neighborhoods.

Policies

LUCC-1.5: Ensure all residential streets provide a safe, comfortable, and enjoyable pedestrian experience, with design elements to include street trees and sidewalks.

LUCC-1.7: Provide City programs that encourage neighborhood beautification and residents' efforts to participate and take pride in their neighborhoods.

Goal 2: A network of great streets and public spaces that encourage social and economic activity.

Policies

LUCC-2.2: Establish a continuity of streetscapes along Whittier Boulevard and Lambert Road that define the public realm, are scaled to the pedestrian experience, and reflect the City's cultural identity through public art, street furniture, landscaping, architectural character, materials, etc.

LUCC-2.3: Concentrate mixed-use development at designated nodes and catalyst sites (see Figure LUCC-1) along Whittier Boulevard and Lambert Road to provide opportunities for clustering similar and compatible uses, support economic development, and create and maintain vibrant pedestrian-oriented spaces and experiences.

LUCC-2.4: Develop objective design standards and guidelines for each land use designation within the Whittier Municipal Code, ensuring the integration of the intent, character, and built form considerations outlined in this General Plan.

Goal 5: Urban recreation and open spaces and experiences that contribute to complete neighborhoods for all residents.

Policies

LUCC-5.1: Encourage active living, physical activity, health, and wellness by creating and maintaining a green network that provides equitable access to recreational facilities, parks, trails, greenways, open spaces, gardens, etc.

Historical Resources Element

Goal 2: Update the City's Historic Preservation Program to align with best practices.

Policies

4.1 - Aesthetics

HR-2.1: Enhance, restore, preserve, and protect, as appropriate, historic resources throughout Whittier.

HR-2.2: Encourage the retention and/or adaptive reuse of historic residential, commercial, and industrial buildings.

Resource Management Element

Goal 10: Provide residents with a wide range of recreation opportunities.

Policy RM-10.2: Enhance park aesthetics, lighting, and design to provide safe and environmentally responsible park and recreation spaces.

General Plan Analysis. Implementation of the proposed GPU is not anticipated to result in the introduction of new sources of substantial light and glare to the Planning Area that would affect existing day time views. Land Use Element Goals 1 and 2 and their attendant policies will work to control lighting impacts in the Planning Area through proper layout and design of land uses and new housing. In addition, Goal 2 from the Historic Resources Element seeks to protect historic buildings and facilities which includes overhaul of existing or the addition of new lighting. Finally, Resource Management Element Goal 10 and its policies address new public facilities which will include lighting.

Summary and Conclusions. While future project components would include windows and other glass features and may include exterior metallic elements and trims (i.e., exterior staircases associated with parking structures, shade structures for retail developments, residential balcony railings, etc.), these elements would be relatively minor in the context of the Planning Area and would be similar to existing architectural elements present in the surrounding area. Further, future projects within the Planning Area would be subject to the lighting and glare restrictions of the City of Whittier Municipal Code Section 18.96.030(J) (Site Design Guidelines). With the continued implementation of these requirements potential impacts with respect to light and glare would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact AES-5 – Would the GPU cause substantial adverse cumulative impacts with respect to aesthetics?

Analysis of Impacts

Scenic Vistas- A cumulative impact to scenic vistas would occur if cumulative projects within the Planning Area, combined with cumulative projects in the surrounding area, resulted in the substantial degradation of quality or obstruction of particularly scenic views available from a recognized scenic vista. Project specific impacts with respect to scenic vistas were determined to less than significant. Buildout of the Specific Plan would occur over a period of 20 years and would occur at locations throughout the Planning Area. Since the Planning Area is an almost entirely urbanized area that is already developed, incremental changes that would occur from implementation of the proposed GPU would not result in cumulative impacts with respect to scenic vistas. Potential cumulative impacts would be less than significant.

Scenic Highways- Since the Planning Area is not visible from an eligible or officially designated state scenic highway, development within the Planning Area would not result in impacts to scenic resources within a state scenic highway. Therefore, the proposed GPU would not contribute to a potential cumulative significant impact to a scenic highway. Potential cumulative impacts would be less than significant.

Degrade Visual Character- Construction and operation of future projects within the Planning Area was determined to result in less than significant impacts to the existing visual character and quality of the Planning Area and surrounding area. Future projects considered in the cumulative scenario would generally be subject to the City's underlying zoning standards that include regulations pertaining to permitted uses, minimum lot dimensions, and maximum building height. The proposed GPU includes Public and Private standards and design guidelines. Future projects within the Planning Area would be located where similar existing uses occur, and as such, would not entail a significant visual change such that the existing visual character or quality of project sites and their surroundings would be substantially degraded. As such, the proposed GPU would not result in cumulative significant impacts that would degrade the existing visual character or quality of the area and its surroundings. Potential cumulative impacts would be less than significant.

Light and Glare- Project related impacts with respect to light and glare were determined to be less than significant. Lighting and building materials associated with cumulative development would be subject to review and approval by the City of Whittier Planning Department. If detailed information regarding proposed lighting and building materials are not known during preparation of necessary environmental documentation for cumulative projects, then the adoption of applicant-proposed measures or mitigation measures would likely be required by the City of Whittier to ensure that lighting and glare impacts are less than significant. Therefore, cumulative impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.1.5 REFERENCES

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

Crawford, Multari, & Clark Associates. CMCA. *Uptown Whittier Specific Plan Draft Environmental Impact Report*. SCH# 2006111085. October 8, 2007.

4.2 – Agriculture and Forestry Resources

This EIR chapter addresses agriculture and forest resources impacts associated with the proposed General Plan Update (GPU). Issues of interest are agriculture and forestry resources impacts identified by the CEQA Guidelines: whether the GPU will convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; conflict with existing zoning for agricultural use or a Williamson Act contract; conflict with existing zoning for or rezoning of forest land or timberland; result in the loss of forest land or conversion of forest land to non-forest use; or involve other changes in the existing environment could result in conversion of farmland or forest land to non-agricultural or non-forest use.

4.2.1 – ENVIRONMENTAL SETTING

There are no existing portions of the Planning Area dedicated to the conservation and protection of agricultural and forestry resources.

Important Farmland

The California Department of Conservation maps all lands in the State that are considered Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance or Grazing Lands. According to the California Department of Conservation's (DOC's) Important Farmland Finder, the entire Planning Area is designated as "not mapped" meaning there is no land in the Planning Area considered Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance or Grazing Lands (DOC, 2020).

Existing Agricultural Uses

The Planning Area does not include any existing agriculture or commercial agricultural land uses. The Planning Area is highly urbanized except for the northeastern portion of the City which includes the Puente Hills Preserve. There are areas of the Puente Hills Preserve that supported agricultural uses in the past, and avocado orchards and remnants of vineyards can be found scattered throughout the Preserve. However, these uses are no longer present (Whittier, 2017). The Puente Hills Preserve is designated as Open Space in the General Plan and Zoning Code and does not include any agricultural land uses. The Planning Area is not mapped in the DOC's Farmland Mapping and Monitoring Program (FMMP) study area (DOC, 2020). There are no agricultural uses in the Planning Area, and there are no areas within the Planning Area zoned for agricultural use.

Agricultural Zoning

The Planning Area does not include any land use designations that specifically support or allow agricultural uses, or zoning classifications specifically for farming or commercial agricultural uses (Whittier, 1993 and Whittier 2020). However, Section 18.52.030 of the City Municipal Code does allow limited and specific agricultural-related activities on individual residential sites zoned R-E or R-1 with approval of a conditional use permit, as outlined below:

18.52.030 - Required for designated uses.

B. Uses conditionally permitted in the R-E zone:

Animals, fish, fowl, homing pigeons of the order *Columbae*, kept and maintained for noncommercial purposes and not otherwise permitted as an accessory use (minor conditional use permit pursuant to Chapter 18.58);

Livestock, care and maintenance for commercial or noncommercial purposes (minor conditional use permit pursuant to Chapter 18.58);

C. Uses conditionally permitted in the R-1 zone:

Those uses conditionally permitted in the R-E zone;

Christmas tree farms, provided sales of trees are allowed only during the month of December;

Crops, field, tree, bush, berry and row, including nursery stock, the growing of;

In addition, Chapter 18.14 of the CMC, H-R Hillside Residential Zone, also allows “*Those uses allowed in zone R-E for which a conditional use permit is required, pursuant to Section 18.52.030*” as outlined above.

Because these agricultural-related activities are specific and limited to individual residential sites zoned R-H, R-E, or R-1, and require approval of a conditional use permit, the City is not considered to have “agricultural zoning” relative to CEQA compliance.

Williamson Act Contracts

According to the California Department of Conservation, Williamson Act reports and statistics, there are no Williamson Act Land Conservation Contract lands in the City, the Sphere of Influence, or surrounding areas (DOC, 2020). The lands in the Planning Area are classified as Non-Enrolled Land or Urban and Built-Up Land.

Forest Resources

Forest land is defined in Public Resources Code Section 12220(g) as “land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits”. The northeastern portion of the Planning Area, specifically the Puente Hills Preserve, includes lands that could be considered forest land as defined in Public Resources Code Section 12220(g). The Puente Hills Preserve is a natural open space with large wooded areas that contain several native tree species, including hardwoods. Additionally, the Puente Hills Preserve, which is managed by the Puente Hills Habitat Authority, provides vegetation complexity and habitats within a relatively small area (Whittier, 2017). Nine major vegetation community types have been identified within the Puente Hills Preserve, including: Coastal sage scrub, Chaparral, grassland communities, riparian habitat, woodland communities, cliff and rock, agriculture, and developed and disturbed. Several vegetation communities within the Puente Hills are unique to the Southern California coast and are considered globally sensitive and often support special status wildlife species that are threatened by urban development. The “woodland communities” vegetation does contain

various native species of trees but would be preserved for their biological value rather than managed as forest resources. The Puente Hills are managed as habitat as well as for important recreational opportunities in the Planning Area and the region, providing miles of hiking and biking trails and other passive and active recreation opportunities. The remainder of the Planning Area is built out and contains mostly ornamental trees, grasses, and shrubs common to most urbanized areas in the region.

4.2.2 – REGULATORY FRAMEWORK

State

Farmland Mapping and Monitoring Program

Important farmland maps are compiled by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), pursuant to the provisions of Section 65570 of the California Government Code. These maps and programs utilize data from the USDA Natural Resource Conservation Service (NRCS) soil survey and current land use information to monitor conversion of important farmland to other uses. The majority of the Planning Area has been mapped by the California Department of Conservation and no type of active farming or farmland is designated with the Planning Area

California Land Conservation Act/Williamson Act Contract Program

The California Land Conservation Act of 1965, also known as the Williamson Act, was adopted in 1965. This voluntary program allows local governments to enter into contracts with private landowners for the purpose of having their property assessed on the basis of its agricultural production rather than at the current market value. The property owner is thus relieved of having to pay higher property taxes, resulting from conversion of nearby lands to urban uses as long as the contracted land remains in agricultural or related open space use. The purpose of the Williamson Act is to encourage property owners to continue to farm their land with a tax incentive, and to prevent the premature conversion of farmland into non-agriculture use. Participation requires that the area consist of 100 contiguous acres of agricultural land under one or more ownerships.

Upon approval of an application by the Board of Supervisors, the agricultural preserve is established, and the land within the preserve is restricted to agricultural and compatible uses for ten (10) years. Williamson Act contracts are automatically renewed annually for an additional one-year period unless the property owner applies for non-renewal or early cancellation. The Williamson Act also contains limited provisions for cancellation of contracts. Specific findings regarding the non-viability of the agricultural use must be made, and a substantial penalty for the cancellation is assessed. Participating counties and cities are required to establish their own rules and regulations regarding implementation of the act within their jurisdiction. The City of Whittier has no land under the Williamson Act and there are no Williamson Act Contracts within the Planning Area.

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE enforces the laws that regulate logging on privately-owned lands in California. The Forest Practice Act was enacted in 1973 to ensure that logging is done in a manner that will preserve and protect fish, wildlife, forests and streams. The State Board of Forestry and Fire Protection enacts and enforces additional rules to protect these resources. CAL FIRE ensures that private landowners abide by these laws when harvesting trees. Although there are specific

exemptions in some cases, compliance with the Forest Practice Act and Board rules apply to all commercial harvesting operations for landowners. A Timber Harvesting Plan (THP) is the environmental review document submitted by landowners to CAL FIRE outlining what timber is proposed to be harvested, how it will be harvested, and the steps that will be taken to prevent damage to the environment.

4.2.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to aesthetics if it would:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code section 51104(g);
- d) Result in the loss of forest land or conversion of forest land to non-forest use; or
- e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

4.2.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to agricultural resources, timberland, and forest range lands.

Convert Farmland

Impact AG-1 – Would the GPU convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Analysis of Impacts

According to the California Department of Conservation’s (DOC’s) Important Farmland Finder, the entire Planning Area is designated as “not mapped” meaning there is no land in the Planning Area considered Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance or Grazing Lands (DOC, 2020). The Planning Area does not include any existing agriculture or commercial agricultural land uses. The Planning Area is highly urbanized except for the northeastern portion of the City which includes the Puente Hills Preserve. There are areas of the Puente Hills Preserve that supported agricultural uses in the past, and avocado orchards and remnants of vineyards can be found scattered throughout the Preserve. However, these uses are no longer present (Whittier, 2017). There are no areas within the Planning Area zoned for agricultural use. The Puente Hills Preserve is designated as Open Space in the General Plan and does not include any designated agricultural land uses. The remaining flatter portions of the Planning Area support mainly urban uses including commercial, residential, medical office, institutional, and industrial uses. There is minimal vacant land within the Planning Area suitable for large scale agriculture, and most of

the remaining vacant developable land is found in infill sites. Since the Planning Area is currently built out, and no traditional large-scale or commercial agricultural uses are located in the Planning Area, no conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use would occur. As a result, there are no goals or policies of the proposed GPU that deal with loss or conversion of traditional agriculture. However, this assessment does not preclude part or all of a lot being used for individual or community gardens which are encouraged under the proposed GPU.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Williamson Act Conflict

Impact AG-2 – Would the GPU conflict with existing zoning for agricultural use, or a Williamson Act contract?

Analysis of Impacts

The City's zoning and General Plan Land Use Element indicate that no portion of the Planning Area is specifically designated for commercial or large-scale farming or specific agricultural uses, and there are no Williamson Act contracts with the Planning Area. Since the Planning Area does not include any agricultural land uses, and no sites in the Planning Area are under a Williamson Act contract, no impact to an agricultural use or Williamson Act contract would occur. As a result, there are no goals or policies of the proposed GPU that deal with Williamson Act contracts or loss agriculture.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Conflict with existing zoning

Impact AG-3 – Would the GPU conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Analysis of Impacts

The northeastern portion of the Planning Area, specifically the Puente Hills Preserve, includes lands that could be considered forest land as defined in Public Resources Code Section 12220(g) in terms of tree cover. The Puente Hills Preserve is a natural open space with large,

wooded areas that contain several native tree species, including hardwoods. Additionally, the Puente Hills Preserve, which is managed by the Puente Hills Habitat Authority, provides vegetation complexity and habitats within a relatively small area (Whittier, 2017). The remainder of the Planning Area is built out and contains mostly ornamental trees, grasses, and shrubs common to most urbanized areas in the region.

The proposed General Plan Update would not allow for any development in the Puente Hills that is not already allowed under the existing General Plan, and no physical changes to the Preserve would result from implementation of the GPU. The Puente Hills Preserve is managed as biological habitat as well as an important recreation resource in the Planning Area and the region, the Preserve is not zoned or managed as timberland. The GPU would not change the zoning of the Puente Hills Preserve which is currently designated for open space¹. As a result, there are no goals or policies of the proposed GPU that deal with zoning for timber or forest land. Therefore, the proposed GPU would not conflict with existing zoning for forest land, timberland, or Timberland Production areas, or result in the loss or conversion of forest lands to non-forest uses, as none exist.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Result in the loss of forest land

Impact AG-4 – Would the GPU result in the loss of forest land or conversion of forest land to non-forest use?

Analysis of Impacts

The northeastern portion of the Planning Area, specifically the Puente Hills Preserve, includes lands that could be considered forest land as defined in Public Resources Code Section 12220(g) in terms of tree cover. However, the General Plan Update would not include any physical changes to the Preserve, would not allow for any development in the Preserve, and would not change its existing zoning for open space and recreation uses. Therefore, no conversion of forest land to non-forest use would occur under the GPU. As a result, there are no goals or policies of the proposed GPU that deal with loss or conversion of forest land.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

¹ It should be noted the NOP contained a minor mapping error that incorrectly showed several small parcels within the Preserve and a park – those errors were corrected and are shown correctly in the GPU and Draft EIR mapping.

Other Changes

Impact AG-5 – Would the GPU involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Analysis of Impacts

Please refer to analyses under Impact AG-1 through AG-4 above. There are no traditional large-scale or commercial agricultural uses in the Planning Area, and there are no parcels within the Planning Area zoned specifically for agricultural use. While there are areas of the Puente Hills Preserve that could be considered forest land as defined in Public Resources Code Section 12220(g) in terms of tree cover, the proposed General Plan Update would not include any physical changes to the Preserve, would not allow for any development in the Preserve, and would not change the existing zoning for open space and recreation uses. The remainder of the Planning Area is primarily comprised of urbanized uses including commercial, residential, medical office, institutional, and industrial uses. As a result, there are no goals or policies of the proposed GPU that deal with loss or conversion of agriculture or forest land. Therefore, no conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use or conversion of forest land to non-forest use would occur as a result of implementation of the proposed GPU.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Cumulative Impacts

Impact AG-6 – Would the GPU cause substantial adverse cumulative impacts with respect to Agriculture and Forestry Resources?

Analysis of Impacts

As described above, the proposed General Plan Update would not result in impacts related to agricultural resources, Prime Farmland, Unique Farmland, or Farmland of Statewide Important, Williamson Act contracts, forest lands, timberland, or Timberland Production areas. Because the General Plan Update would not impact agricultural uses, Farmland, Williamson Act contracts, forest lands, timberland, or Timberland Production areas, the proposed GPU would not contribute to a cumulative significant impact related to agriculture and forestry resources.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

4.2.5 REFERENCES

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California Department of Conservation (DOC 2020b). Williamson Act Program: Reports and Statistics. Web: https://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx. [Accessed July 2020].

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City of Whittier. Whittier Code of Ordinances: Zoning Code. Web: https://library.municode.com/ca/whittier/codes/code_of_ordinances?nodeId=16695. [Accessed July 2020].

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4.3 – Air Quality

This EIR chapter provides information on the environmental and regulatory air quality setting of the planning area and evaluates the potential amount of emissions of regulated air pollutants that could be generated by construction and operation of projects pursuant to the Whittier General Plan Update (GPU). The methodologies and assumptions used in the preparation of this section follow the CEQA Guidelines developed by the South Coast Air Quality Management District (SCAQMD) (SCAQMD, 2019a). Information on existing air quality conditions, federal, and State ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This EIR air quality analysis has been closely coordinated with the energy and greenhouse gas analyses contained in Chapters 4.6 and 4.8 of this EIR. Please refer to Appendix D for detailed air quality and greenhouse gas emissions estimates (MIG, 2021). As described in Section 4.3.4, potential Project impacts with respect to air quality include conflict with or obstruction of the applicable air quality plan, cumulatively considerable net increases in criteria pollutants, exposure of sensitive receptors to substantial pollutant concentrations, and other emissions (such as odors) that could adversely affect a substantial number of people.

4.3.1 – ENVIRONMENTAL SETTING

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

South Coast Air Basin

The U.S. EPA and CARB are the federal and State agencies charged with maintaining air quality in the nation and California, respectively. The U.S. EPA delegates much of its authority over air quality to CARB which has geographically divided the State into 15 air basins for the purposes of managing air quality on a regional basis. An air basin is a CARB-designated management unit with similar meteorological and geographic conditions.

The City of Whittier is located in the South Coast Air Basin (Basin) which includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The Basin encompasses approximately 6,745 square miles of coastal plains and is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

Air quality in the Basin is managed by the SCAQMD. Pursuant to the California Clean Air Act, the SCAQMD is responsible for bringing air quality within the Basin into conformity with federal and State air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. SCAQMD works with federal, State, and local agencies to reduce pollutant emissions through adoption and implementation of rules and regulations. Please refer to Section 4.3.2 for a description of the regulatory setting of the Planning Area as it relates to air quality.

Basin Climate and Meteorology

The climate of the Los Angeles region is classified as Mediterranean, but weather conditions within the Basin are also dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This temperate climate is occasionally interrupted by extremely

hot temperatures during the summer, hot dry westerly “Santa Ana” winds during the fall, and storms from the Pacific northwest during the winter. In addition to the Basin’s topography and geographic location, El Niño and La Niña patterns in the central Pacific Ocean can also have large effects on weather and rainfall received in the Basin between November and March.

The Pacific high-pressure system drives the prevailing winds in the Basin. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is often created over the coastal areas and increases ozone levels. A temperature inversion is created when a layer of cool air is overlain by a layer of warmer air; this can occur over coastal areas when cool, dense air that originates over the ocean is blown onto land and flows underneath the warmer, drier air that is present over land. In the winter, areas throughout the Basin often experience a shallow inversion layer that prevents the dispersion of surface level air pollutants, resulting in higher concentrations of criteria air pollutants such as carbon monoxide (CO) and oxides of nitrogen (NO_x).

In the fall months, the Basin’s weather is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada-Utah region that overcomes a westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. These winds can be powerful and persistent during these times.

An El Niño condition is a warming of the surface waters of the eastern Pacific Ocean. It is a climate pattern that occurs across the tropical Pacific Ocean that is usually associated with drastic weather occurrences, including enhanced rainfall in Southern California. Conversely, a La Niña condition is the term for cooler than normal sea surface temperatures across the Eastern Pacific Ocean. The Los Angeles region receives less than normal rainfall during La Niña years.

Throughout the Basin, annual average temperatures vary from the low to middle 60s degrees Fahrenheit (° F). Due to a decreased marine influence, the eastern portion of the Basin shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the Basin, with average minimum temperatures of 47° F in downtown Los Angeles and 36° F in San Bernardino. All portions of the Basin have recorded maximum temperatures above 100° F.

Although the climate of the Basin can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of Basin climate. Humidity restricts visibility in the Basin. The sulfur dioxide is converted to sulfates and is heightened in the air with high relative humidity. The annual average relative humidity within the Basin is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent with low stratus clouds being a characteristic feature. These effects decrease with distance from the coast.

More than 90 percent of the Basin’s rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Rainfall between the months of April and November usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the Basin with frequency being higher near the coast.

The City of Whittier’s average temperatures range from a high of 89 degrees Fahrenheit in August to a low of 47 degrees Fahrenheit in December. Annual precipitation is approximately 14 inches, falling mostly from January through April (WRCC, 2020).

Sunlight. Three-quarters of available sunshine is received in the Basin, while the remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. The shortest day of the year has approximately ten hours of possible sunshine, while the longest day of the year has approximately 14.5 hours of possible sunshine.

Temperature Inversions. In the Basin, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing that effectively acts as an impervious lid to pollutants over the entire Basin. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NO_x and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants within the Basin.

Wind Patterns. The distinctive climate of the Basin is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest with high mountains forming the remainder of the perimeter.

Wind patterns across the Basin, including Whittier, are characterized by westerly and southwesterly onshore winds during the day and an easterly or northeasterly breeze at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

Regulated Air Pollutants

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone (O₃), particulate matter (PM), which consists of “inhalable coarse” PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or PM₁₀) and “fine” PM (particles with an aerodynamic diameter smaller than 2.5 microns, or PM_{2.5}), CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. The U.S. EPA refers to these six common pollutants as “criteria” pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally-based criteria and because they are known to cause adverse human health effects and/or adverse effects on the environment (U.S. EPA, 2020a and 2020b).

CARB has also established California Ambient Air Quality Standards (CAAQS) for the six criteria air pollutants regulated by the federal Clean Air Act (the CAAQS are more stringent than the NAAQS), plus the following additional air pollutants due to their known adverse effects on human health or the environment (CARB, 2020a): hydrogen sulfide (H₂S), sulfates (SO_x), vinyl chloride, and visibility reducing particles.

A description of the air pollutants associated with the proposed GPU and its vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the Planning Area such as hydrogen sulfide and visibility reducing particles, are not described below.

- **Ground-level Ozone**, commonly referred to as smog, is not emitted directly into the atmosphere. It is created from chemical reactions between NO_x and volatile organic compounds (VOCs), also called reactive organic gases (ROG), in the presence of sunlight (U.S. EPA, 2017a). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO_x and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.
 - **ROG** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA (CARB, 2004).
 - **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as: methane, ethane, and methylene chloride (CARB, 2004).
- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA, 2016a).
 - **PM₁₀**, also known as inhalable coarse, respirable, or suspended PM, consists of particles less than or equal to 10 micrometers in diameter (approximately 1/7th the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA, 2016a).
 - **PM_{2.5}**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately 1/30th the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA, 2016a).
- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicles are the single largest source of carbon monoxide in the Basin. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA, 2016b).
- **Nitrogen Dioxide (NO₂)** is a by-product of combustion. NO₂ is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as NO_x and are major contributors to ozone formation. NO₂ also contributes to the formation of particulate matter. NO₂ can cause breathing difficulties at high concentrations (U.S. EPA, 2016c).
- **Sulfur Dioxide (SO₂)** is one of a group of highly reactive gases known as SO_x . Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO₂.

Short-term effects of SO₂ exposure can include adverse respiratory effects such as asthma symptoms. SO₂ and other SO_x can react to form PM (U.S. EPA, 2016d).

- **Sulfates (SO₄²⁻)** are the fully oxidized ionic form of sulfur. SO₄²⁻ are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO₂ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB, 2009).
- **Lead** is a metal found naturally in the environment as well as in manufactured products. Mobile sources used to be the main contributor to ambient lead concentrations in the air. In the early 1970s, the U.S. EPA established national regulations to gradually reduce the lead content in gasoline, and in 1996, lead was banned from gasoline. As a result of these efforts, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Lead can adversely affect multiple organ systems of the body and people of every age group. Lead poisoning in young children can cause brain damage, behavioral problems, and liver or kidney damage. Lead poisoning to adults can cause reproductive problems, muscle and joint pain, nerve disorders and kidney disease (CARB, 2016a).

Common criteria air pollutants, such as ozone precursors, SO₂, and PM, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Basin). Other pollutants, such as hazardous air pollutants (HAPs; described in more detail below under “Toxic Air Contaminants”), toxic air contaminants (TACs; described in more detail below), and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

Ambient Air Quality Standards and Basin Attainment Status

In general, the NAAQS and CAAQS define “clean” air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter (µg/m³).

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories.

- **Attainment.** A region is “in attainment” if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a “maintenance area” for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and State laws require nonattainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.

- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Table 4.3-1 (Ambient Air Quality Standards and Basin Attainment Status) lists the NAAQS and CAAQS and summarizes the Basin's attainment status.

**Table 4.3-1
Ambient Air Quality Standards and Basin Attainment Status**

Pollutant	Averaging Time ^(B)	California Standards ^(A)		National Standards ^(A)	
		Standard ^(C)	Attainment Status ^(D)	Standard ^(C)	Attainment Status ^(D)
Ozone	1-Hour (1979)	--	--	240 µg/m ³	Nonattainment
	1-Hour (Current)	180 µg/m ³	Nonattainment	--	--
	8-Hour (1997)	--	--	160 µg/m ³	Nonattainment
	8-Hour (2008)	--	--	147 µg/m ³	Nonattainment
	8-Hour (Current)	137 µg/m ³	Nonattainment	137 µg/m ³	Pending
PM ₁₀	24-Hour	50 µg/m ³	Nonattainment	150 µg/m ³	Attainment
	Annual Average	20 µg/m ³	Nonattainment	--	--
PM _{2.5}	24-Hour	--	--	35 µg/m ³	Nonattainment
	Annual Average (1997)	--	--	15 µg/m ³	Nonattainment
	Annual Average (Current)	12 µg/m ³	Nonattainment	12 µg/m ³	Nonattainment
Carbon Monoxide	1-Hour	23,000 µg/m ³	Attainment	40,000 µg/m ³	Attainment
	8-Hour	10,000 µg/m ³	Attainment	10,000 µg/m ³	Attainment
Nitrogen Dioxide	1-Hour	339 µg/m ³	Attainment	188 µg/m ³	Unclassifiable/Attainment
	Annual Average	57 µg/m ³	Attainment	100 µg/m ³	Attainment
Sulfur Dioxide	1-Hour	655 µg/m ³	Attainment	196 µg/m ³	Attainment
	24-Hour	105 µg/m ³	Attainment	367 µg/m ³	Unclassifiable/Attainment
	Annual Average	--	--	79 µg/m ³	Unclassifiable/Attainment
Lead	3-Months Rolling	--	--	0.15 µg/m ³	Nonattainment (Partial)
Hydrogen Sulfide	1-Hour	42 µg/m ³	Attainment	--	
Sulfates	24-Hour	25 µg/m ³	Attainment	--	
Vinyl Chloride	24-Hour	26 µg/m ³	Attainment	--	

Source: CARB 2016b, SCAQMD 2016a, modified by MIG.

(A) This table summarizes the CAAQS and NAAQS and the Basin's attainments status. This table does not prevent comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Standards are not presented for visibility reducing particles, which are not concentration-based. The Basin is unclassified for visibility reducing particles.

(B) Ambient air standards have changed over time. This table presents information on the standards previously used by the U.S.

Pollutant	Averaging Time ^(B)	California Standards ^(A)		National Standards ^(A)	
		Standard ^(C)	Attainment Status ^(D)	Standard ^(C)	Attainment Status ^(D)
EPA for which the Basin does not meet attainment.					
(C) All standards are shown in terms of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) rounded to the nearest whole number for comparison purposes (with the exception of lead, which has a standard less than $1 \mu\text{g}/\text{m}^3$). The actual CAAQS and NAAQS standards specify units for each pollutant measurement.					
A= Attainment, N= Nonattainment, U=Unclassifiable.					

Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), respectively. The U.S. EPA has identified 187 HAPs, including substances such as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs. Since CARB's list of TACs references and includes U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs.

TACs can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer) (U.S. EPA 2020b, CARB 2020b). People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects such as (but not limited to) reduce immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems (U.S. EPA 2020b, CARB 2020b).

A description of the TACs associated with the proposed GPU and its vicinity is provided below.

- Gasoline-Powered Mobile Sources.** According to the SCAQMD's *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (SCAQMD, 2021), or MATES V, gasoline-powered vehicles emit TACs, such as benzene, which can have adverse health risks. Gasoline-powered sources emit TACs in much smaller amounts than diesel-powered vehicles. The MATES V study identifies that diesel emissions account for approximately 50% of the total air toxics and cancer risk in the Basin, while Benzene, 1,3-Butadiene, and Carbonyls make up approximately 25 percent of the cancer risk.
- Diesel Particulate Matter (DPM).** Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than $1 \mu\text{m}$ in diameter, and thus is a subset of $\text{PM}_{2.5}$. DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants including VOCs and NO_x . The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surfaces and in the deepest regions of the lungs where they are most susceptible to injury. In 1998, CARB identified DPM as a toxic air contaminant based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as $\text{PM}_{2.5}$ exposure (CARB, 2016c).
- PM from Wheel-Rail Interactions:** PM may also be generated from friction between rail and locomotive wheels (wheel-rail interaction). This abrasion process can suspend metals such as iron, chromium, manganese, and copper in the form of PM (CARB, 2020b; Loxham et al., 2013); however, the potential for PM to be generated is dependent on the weight of the train and the conditions of the wheels and track on which

the train rides. The Metrolink is a commuter rail that consists of a traditional diesel locomotive commuter rail system; the rail line is also shared by freight trains. Thus, while the Metrolink may generate PM from wheel-rail interaction, this contribution is anticipated be minimal (i.e., would not have an appreciable effect on mass emission or health risk estimates) and this issue is not discussed further in this EIR.

- **Toxic elements and pollutants** such as butadiene, benzene, perchloroethylene, formaldehyde, acetaldehyde, arsenic, cadmium, and lead are found in the Basin (SCAQMD, 2021). Many toxins such as benzene, butadiene, and lead, are associated with refinery operations such as those that exist in the Basin.

Local Air Quality Conditions

The SCAQMD monitors air quality within the Basin. Existing levels of ambient air quality and historical trends within the planning area are best documented by measurements taken by the SCAQMD. The Planning Area is located in SCAQMD Source Receptor Area (SRA) 11 (South San Gabriel Valley). Air quality monitoring stations usually measure pollutant concentrations at varying heights above ground level depending on the monitoring site and the pollutants being monitored. Therefore, air quality is often referred to in terms of ground-level concentrations. The closest air quality monitoring station is the Pico Rivera Monitoring Station, located at 4144 San Gabriel River Parkway, Pico Rivera, California (approximately 3.9 miles northwest of the center of the Planning Area and approximately 0.5 miles to the northwesternmost edge of the Planning Area). Air quality data for O₃, NO₂, CO, SO₂, PM₁₀, and PM_{2.5} from the Pico Rivera monitoring station are provided in Table 4.3-2 (Local Air Quality Conditions (2017-2019)).

**Table 4.3-2
Local Air Quality Conditions 2017-2019**

Pollutant	Ambient Air Standard	Year ^(A)		
		2017	2018	2019
<i>Ozone (O₃)</i>				
Maximum 1-hour Concentration (ppm)		0.118	0.115	0.108
Maximum 8-hr Concentration (ppm)		0.086	0.082	0.091
Number of Days Exceeding State 1-hr Standard	>180 µg/m ³	7	3	5
Number of Days Exceeding State 8-hr Standard	>137 µg/m ³	9	5	7
Days Exceeding Federal 1-hr Standard	>0.124 ppm	0	0	0
Days Exceeding Federal 8-hr Standard	>0.070 ppm	9	5	7
<i>Carbon Monoxide (CO)</i>				
Maximum 1-hr Concentration (ppm)		2.5	2.0	1.9
Maximum 8-hr Concentration (ppm)		2.2	1.8	1.5
Days Exceeding State 1-hr Standard	>23,000 µg/m ³	--	--	--
Days Exceeding Federal/State 8-hr Standard	>10,000 µg/m ³	--	--	--
Days Exceeding Federal 1-hr Standard	>40,000 µg/m ³	--	--	--
<i>Nitrogen Dioxide (NO₂)</i>				
Maximum 1-hr Concentration (ppb)		75.0	76.8	61.8
Annual Arithmetic Mean Concentration (ppb)		19.6	18.3	17.6
Days Exceeding State 1-hr Standard	>180 µg/m ³	--	--	--
<i>Coarse Particulate Matter (PM₁₀) *</i>				

Pollutant	Ambient Air Standard	Year ^(A)		
		2017	2018	2019
Maximum 24-hr Concentration ($\mu\text{g}/\text{m}^3$)		--	--	--
Annual Arithmetic Mean ($\mu\text{g}/\text{m}^3$)		--	--	--
Samples Exceeding State 24-hr Standard	>50 $\mu\text{g}/\text{m}^3$	--	--	--
Samples Exceeding Federal 24-hr Standard	>150 $\mu\text{g}/\text{m}^3$	--	--	--
<i>Fine Particulate Matter (PM_{2.5})</i>				
Maximum 24-hr Concentration ($\mu\text{g}/\text{m}^3$)		49.50	35.40	29.60
Annual Arithmetic Mean ($\mu\text{g}/\text{m}^3$)		12.23	12.31	10.34
Samples Exceeding Federal 24-hr Standard	>35 $\mu\text{g}/\text{m}^3$	4	0	0
Source: SCAQMD 2020a, 2020b, 2020c				
(A) "--" indicates data are not available.				
* There is no PM ₁₀ data in SRA 11 nor any other SRA in the vicinity of the Planning Area.				

Existing Emissions Levels in the Planning Area

The City's GPU Resource Management Element identifies local and regional industries, railroads, active construction sites, and vehicles operating on Whittier Boulevard and Interstate 605 (I-605) as the primary sources of the City's pollutant concentrations (City of Whittier, 2021). The Whittier Boulevard and I-605 junction sees the third highest volume of heavy and light duty truck traffic and nitrous oxide emissions in the SCAQMD region.

The existing residential and non-residential land uses in the planning area generate emissions from the following sources:

- **Small "area" sources.** Existing land uses generate emissions from small area sources including landscaping equipment and the use of consumer products such as paints, cleaners, and fertilizers that result in the evaporation of chemicals to the atmosphere during product use.
- **Energy use and consumption.** Existing land uses generate emissions from the combustion of natural gas in building water and space heating equipment, as well as industrial processes.
- **Mobile sources.** Existing land uses generate emissions from vehicles traveling to and from the plan area.

Existing land uses in the Planning Area are summarized in Table 3-1 (Whittier General Plan 2040 Projections) of the Project Description (see Chapter 3). Existing emissions were estimated using the California Emissions Estimator Model, or CalEEMod, Version 2016.3.2. The existing emissions were estimated using default data assumptions contained within CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for each existing land use within the Planning Area was adjusted to reflect existing development conditions (see Chapter 3, Project Description, Table 3-1 and Table 3-2).
- **Energy Use and Consumption:** The residential default electrical energy intensity and natural gas energy intensity values were adjusted upwards by a factor of 1.13 and a factor of 1.27, respectively, to reflect lower energy efficiency requirements of the 2013 energy code (CAPCOA, 2017a). Similarly, the non-residential default electrical energy intensity, light energy intensity, and natural gas energy intensity values were adjusted

upwards by a factor of 1.05, 1.02, and 1.01, respectively. This is appropriate as most buildings in the planning area were constructed prior to the adoption of both the 2013 (modeled energy efficiency) and 2016 (default assumption) Title 24 building energy efficiency standards.

- **Mobile Sources**

- **Trip Generation and Distance:** A default CalEEMod run was conducted based on the existing land use types within the City. The weekday and weekend trip generation rates accounted for in the default CalEEMod run were used in conjunction with the default annual vehicle miles traveled (VMT) estimates to derive an average trip distance of approximately 8.17 miles. The average, daily VMT estimate prepared by Fehr and Peers for the existing land uses (5,520,899 miles per day) within the Planning Area, as presented in the Transportation Impact Analysis prepared for the proposed GPU, was then annualized using a multiplication factor of 347 days per year, the same factor used in CARB’s 2000-2012 Greenhouse Gas Emissions Inventory, and divided through by the average distance per trip calculated from the default CalEEMod run (CARB, 2014; Fehr and Peers, 2021). This results in approximately 1,991,622,809 annual VMT. New weekday and weekend trip generation rates were developed for CalEEMod based on the total, annual vehicle trips and initial weekday/weekend trip generation accounted for in CalEEMod.
- **Emission Factors:** Vehicle emission factors were updated based on derived EMFAC20201 (version 1.0.1) emission rates for Los Angeles County (South Coast Air Basin) in the Year 2019, consistent with the methodology described in the CalEEMod User’s Guide Appendix A (CAPCOA, 2017b).

The emissions generated by current land uses in the Planning Area are shown in Table 4.3-3 (Whittier General Plan Update Existing Land Use Emissions Estimates). The emissions are shown for two scenarios:

- **Year 2019 (current conditions)**, which are based on Year 2019 vehicle fleet characteristics (e.g., vehicle type, age, emission rates).
- **Year 2040 (future conditions)**, which are based on Year 2040 vehicle fleet characteristics and represent the projected emissions that existing land uses would generate in the future (assuming no increase in population or change in land uses). This scenario provides an estimate of how emissions would change in the Planning Area as a result of regulations that would reduce motor vehicle emissions in the future, and allows for distinguishing the potential change in emissions that would occur from the proposed change in land uses that would occur with implementation and buildout of the GPU in Year 2040, as opposed to a change in emissions that would occur from regulatory requirements that would be in place whether or not the GPU is adopted.¹

¹ Fehr and Peers generated an average daily VMT estimate for the “Cumulative Base 2040 Conditions” scenario. Therefore, the Year 2040 (Future Conditions) CalEEMod estimates use that VMT value for the purposes of assessing potential mobile source emissions, as opposed to the daily VMT estimate generated for the “2019 Existing/Baseline Conditions” scenario (Fehr and Peers, 2021).

**Table 4.3-3
Whittier General Plan Update Existing Land Use Emissions Estimates**

Emissions Source	Maximum Daily Pollutant Emissions (Pounds per Day) ^(A)							
	ROG	NO _x	CO	SO ₂	PM ₁₀		PM _{2.5}	
					Dust	Exhaust	Dust	Exhaust
Year 2019 (Current Conditions)								
Area Sources	14,057	6,770	27,300	60	0	3,547	0	3,547
Energy	43	367	168	2	0	30	0	30
Mobile Sources	2,701	5,402	28,428	55	4,136	82	1,035	78
<i>Year 2019 Total^(B)</i>	<i>16,801</i>	<i>6,770</i>	<i>55,896</i>	<i>118</i>	<i>4,136</i>	<i>3,658</i>	<i>1,035</i>	<i>3,654</i>
Year 2040 (Future Conditions)								
Area Sources	13,919	1,001	27,265	60	0	3,547	0	3,547
Energy	43	367	168	2	0	30	0	30
Mobile Sources	1,001	1,493	10,202	38	3,975	20	994	19
<i>Year 2040 Total^(B)</i>	<i>14,963</i>	<i>2,862</i>	<i>37,635</i>	<i>100</i>	<i>3,975</i>	<i>3,596</i>	<i>994</i>	<i>3,595</i>
Source: MIG, 2021, see Appendix D.								
(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted in this document. Maximum daily ROG, CO, SO _x emissions occur during the summer. Maximum daily NO _x , PM ₁₀ , and PM _{2.5} emissions occur during the winter.								
(B) Totals may not equal due to rounding.								

As shown in Table 4.3-3, there is a decrease in mobile source emissions between Year 2019 and Year 2040 conditions. This decrease in emissions is due to improvements in exhaust emission control systems in newer vehicles, along with fewer older vehicles in use.² The difference between the PM₁₀ and PM_{2.5} dust emissions is associated with differing annual VMT estimates between the two scenario years. In actuality, if VMT was held consistent, these values would be the same, because the emission factors associated with paved road dust, tire and break wear, etc. would remain constant year after year.

Sensitive Receptors

Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the SCAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (SCAQMD, 2019a; CARB, 2005).

The potentially serious detrimental effects caused by even the most common pollutants are of widespread concern. O₃, PM, CO and other pollutants pose a very real threat to health and property in the Basin. The region's high median age implies that major portions of residents are particularly susceptible to respiratory distress from O₃ and PM₁₀. In general, the sensitive air quality receptors within the City of Whittier include, but are not limited to:

- Existing low- and medium-density residential receptors within the City;
- Existing elementary and intermediate schools, and education or institutional facilities;
- Existing medical facilities, such as the PIH Health Whittier Hospital;
- Existing public facilities such as the Boys and Girls Club;
- Existing parks and recreational facilities, including, but not limited to, Palm Park, J. G. Whittier Park, Michigan Park, and York Field.

² For example, the U.S. EPA's Emission Standards Reference Guides indicates light duty vehicles and light duty trucks have the following NO_x exhaust emissions at approximately 50,000 miles of use: 1 gram/mile for 1981 to 1993 model year vehicles, 0.4 grams/mile for 1994 to 1999 model year vehicles, and will drop to 0.05 grams/mile by 2025 (U.S. EPA, 2016e and 2016f).

Existing Air Pollution-Related Health Risks

Sensitive air quality receptors are usually most affected by local sources of air pollution. The Planning Area borders and is near I-605, and Whittier Boulevard runs through the middle of the Planning Area. Both of these major roadways carry trucks that emit DPM as they operate, and cause localized areas of DPM concentrations. One freight rail line operated by the Union Pacific Railroad (UPRR) borders Lambert Road in the southern part of the City. Although the passage of freight trains is relatively infrequent, the emissions from locomotive operation also contribute to localized DPM concentrations in that portion of the City, too.

Under the State’s Air Toxics Hot Spots Information and Assessment Act (AB 2588; see Section 4.3.2) the SCAQMD is required to prepare an annual report of activities related to facilities that emit TACs. According to the SCAQMD’s October 2020 Annual Report on AB 2588 Air Toxics Hot Spots Program, there were two facilities within the Planning Area that were subject to AB 2588 activities; the LA Co., Sanitation District (SCAQMD Facility ID 2680) and CMC Printed Bag Inc. (SCAQMD Facility ID 42922) (SCAQMD, 2020d). Publicly available data from CARB indicates there are 25 facilities within the Planning area that report emissions pursuant to AB 2588 (CARB, 2021). Please see Appendix D for a full list of emissions and risks from the facilities, as provided by the CARB database.

According to the SCAQMD’s MATES V Carcinogenic Risk Map, the Planning Area has an estimated cancer risk ranging between 401 and 550 (SCAQMD, 2021).³ These cancer risk estimates are orders of magnitude higher than the SCAQMD’s significance threshold of 10 cases in one million for cancer risk. These estimates, however, are based upon regional modeling efforts that largely do not account for site specific emission rates and dispersion characteristics that typically result in refined and substantially lower health risk estimates.

CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution’s effects. While CalEnviroScreen was originally developed as part of Senate Bill (SB) 535 and used to identify disadvantaged communities for the purposes of allocating funding from the State’s Cap-and-Trade regulation, its application and scope have expanded over the years. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The CalEnviroScreen model is made up of four components – two pollution burden components (exposures and environmental effects) and two population characteristics components (sensitive populations and socioeconomic factors). The four components are further divided into 20 indicators. An indicator is a measure of either environmental conditions, in the case of pollution burden indicators, or health and vulnerability factors, in the case of population characteristic indicators.

- **Exposure** indicators are based on the measurements of different types of pollution that people may come into contact with. Exposure indicators include:
 - Air Quality: Ozone
 - Air Quality: PM_{2.5}
 - Children’s Lead Risk from Housing
 - Diesel Particular Matter
 - Drinking Water Contaminants
 - Pesticide Use

³ According to the SCAQMD (2021), cancer risk refers to the probability of contracting cancer associated with exposure to a substance. It is expressed as the chance per million population of a cancer case occurring. A risk ranging from 401 to 550 per million means that in a population of one million individuals (exposed over a 70-year lifetime), 401 to 550 additional cancer cases would be expected.

- Toxic Releases from Facilities
- Traffic Density
- **Sensitive population** indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health. Sensitive population indicators include:
 - Asthma
 - Cardiovascular Disease
 - Low Birth Weight Infants
- **Environmental effects** indicators are based on the locations of toxic chemicals in or near communities. Environmental effects indicators include:
 - Cleanup Sites
 - Groundwater Threats
 - Hazardous Waste Generators and Facilities
 - Impaired Water Bodies
 - Solid Waste Sites and Facilities
- **Socioeconomic factor** indicators are conditions that may increase people’s stress or make healthy living difficult and cause them to be more sensitive to pollution’s effects (OEHHA, 2017). Socioeconomic factors include:
 - Educational Attainment
 - Housing Burden
 - Linguistic Isolation
 - Poverty
 - Unemployment

Each census tract receives scores for as many of the 20 indicators as possible, and the scores are then mapped so that different communities can be compared. Percentiles are assigned to each census tract based on the census tract’s score in relation to the rest of the state. An area with a high percentile is one that experiences a much higher pollution burden than areas with low scores. For example, if a census tract has an indicator in the 40th percentile, it means that indicator’s percentile is higher than 40 percent of the census tracts in the state. CalEnviroScreen also provides a total (or cumulative) score, which is the product of multiplying the 10 pollution burden components by the 10 population characteristics. This total / cumulative score helps contextualize how multiple contaminants from multiple sources affect people, while taking into account their living conditions (e.g., nonchemical factors such as socioeconomic and health status). Communities that are within the top 25th percentile for total CalEnviroScreen scores (i.e., scoring in the 75th percentile or higher for the cumulative score) are considered disadvantaged communities pursuant to SB 535 (OEHHA, 2017).

According to the OEHHA CalEnviroScreen 4.0 Map, the Planning Area generally includes census tracts 6037500300, 6037501001, 6037501002, 6037501400, 6037501503, 6037501504, 6037501600, 6037501700, 603750201, 603750202, 6037501809, 6037501802, 6037501803, 6037501804, 6037502002, 6037502004, 6037502005, 6037502100, 6037502200, 6037502901, 6037503201, 6037503202, 6037503302, 6037503401, 6037503402, 6037503501, and 6037503502 (OEHHA, 2021). In general, the census tracts that are located in the western and southern portions of the Planning Area have higher CalEnviroScreen scores than the census tracts located in the eastern and northern portions of the Planning Area. The worst-scoring census tracts within the Planning Area are generally bounded by Whittier Boulevard to

the north and east, Washington Boulevard to the south, and I-605 to the west. Census tracts 6037501200, 6037501001, 6037502200, 6037501400, 6037502100, 6037502004, 6037501804, and 6037501803 all score above CalEnviroScreen’s 75 percentile, making them disadvantaged communities as defined by SB 535.

NOP Comments

A letter from the **South Coast Air Quality Management District (SCAQMD)** was received on June 1, 2021 that provided historical information about the district and the types of issues that should be addressed in the General Plan EIR regarding air quality. The SCAQMD requested information be provided on construction and operational emissions as well as mitigation for significant air pollutant emissions under CEQA. However, it must be remembered this is a programmatic document and it clearly references the need for site specific air quality and GHG studies when development is proposed in the future on specific sites. As outlined in CEQA, detailed assessments of those types of impacts as identified by SCAQMD will be evaluated at that time. The following sections evaluate the relevant air quality issues raised by the SCAQMD.

A letter from Mitchell M. Tsai, Attorney at Law, representing the **Southwest Regional Council of Carpenters (SRCC)** stated that local hire and skilled and trained workforce requirements can reduce environmental impacts by reducing the length of vendor trips, and greenhouse gas and air pollutant emissions and providing localized economic benefits. However, this is a programmatic CEQA document and it would be overly speculative and beyond the scope necessary to identify these kinds of “mitigation” for potential air quality and GHG impacts. The EIR clearly references the need for site specific air quality and GHG studies when specific development is proposed on specific sites in the future. As outlined in CEQA, detailed assessments of those types of impacts (and their potential project-specific mitigation) will be evaluated at that time.

4.3.2 – REGULATORY FRAMEWORK

Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The Act establishes the U.S. EPA’s responsibilities for protecting and improving the nation’s air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, to achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

State

California Clean Air Act

In addition to being subject to Federal requirements, air quality in the state is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS. As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. CARB oversees the functions

of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

In-Use Off-Road Diesel Equipment Program

CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of NO_x and PM from off-road diesel vehicles, including construction equipment, operating within California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology (BACT) requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles of 25 horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NO_x, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines, and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

CARB Stationary Diesel Engines – Emission Regulations

In 1998, CARB identified DPM as a TAC. To reduce public exposure to DPM, in 2000, the Board approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments to *Airborne Toxic Control Measure for Stationary Compression Ignition Engines* and be permitted by SCAQMD.

CARB Air Quality and Land Use Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB, 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries,

distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Planning Area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry-cleaning operations (dry cleaning with TACs is being phased out and will be prohibited in 2023). The SCAQMD (Regulation 14, Rule 21) has established emission controls for the use of perchloroethylene, the most common dry-cleaning solvent.

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB, 2017), that provides recommendations for strategies to minimize exposure of the public to air pollutants due to proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

Air Toxics “Hot Spots” Program

State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics “Hot Spots” Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics “Hot Spots” Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California’s Children’s Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California’s Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. EPA;
- U.S. National Toxicology Program (NTP);
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

On May 6, 2005, the SCAQMD adopted a *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* containing numerous recommendations focused on

land use planning, such as locating sensitive receptors away from substantial sources of TACs and CO hot spots (e.g., high-traffic freeways and roads, distribution centers, refineries, etc.). When locating receptors near large generators of TAC emissions, the SCAQMD recommends conducting CO hot spot analyses and analyzing health risk for these new developments.

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. SCAG encompasses the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial.

SCAG is designated as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency. Under SB 375, SCAG, as a designated MPO, is required to prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Information contained in Chapter 5: The Road to Greater Mobility and Sustainable Growth of the 2016 RTP/SCS forms the basis for the land use and transportation components of the Air Quality Management Plan (AQMP), and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP (SCAG, 2016).

SCAQMD Air Quality Management Plan (AQMP)

Under State law, the SCAQMD is required to prepare an overall plan for air quality improvement, known as an AQMP. The purpose of an AQMP is to bring an air basin into compliance with federal and State air quality standards. The SCAQMD 2016 AQMP was adopted on March 3, 2017. The 2016 AQMP provides new and revised demonstrations for how the SCAQMD, in coordination with federal, State, regional and local governments will bring the Basin back into attainment for the following NAAQS: 2008 8-hour ozone; 2012 annual PM_{2.5}; 2006 24-hour PM_{2.5}; 1997 8-hour ozone; and 1997 1-hour ozone.

To achieve the reductions necessary to bring ambient air quality back into attainment the SCAQMD has identified seven primary objectives for the AQMP, which include:

1. Eliminating reliance on unknown future technology measures to demonstrate future attainment of air quality standards;
2. Calculating and accounting for co-benefits associated with measures identified in other, approved planning efforts (e.g., SCAG RTP/SCS);
3. Developing a strategy with fair-share emission reductions at the federal, State, and local levels;
4. Investing in strategies and technologies that meet multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation—especially in disadvantaged communities;
5. Seeking, identifying, and securing significant sources of funding for incentives to implement early deployment and commercialization of zero and near-zero technologies, particularly in the mobile source sector;

6. Enhancing the socioeconomic analysis and selecting the most efficient and cost-effective path to achieve multi-pollutant and -deadline targets; and
7. Prioritize non-regulatory, innovative approaches that can contribute to the economic vitality of the regional while maximizing emission reductions.

The emission forecasts and demonstrations presented in the 2016 AMQP rely heavily on information contained in other planning and strategy documents. For example, the 2016 AQMP's long-term emissions inventory is based on the growth and land uses projections contained in the SCAG's 2016 RTP/SCS. Additionally, the conclusions relating to ozone compliance are based on implementation of measures presented in CARB's Mobile Source Strategy and SIP strategy. The Mobile Source Strategy outlines a suite of measures targeted at on-road light- and heavy-duty vehicles, off-road equipment, and federal and international sources. A subset of the statewide strategy is a mobile source strategy for the South Coast SIP. Because the SCAQMD has limited authority in regulating mobile source emissions, coordination and cooperation between SCAQMD, CARB, and the U.S. EPA is imperative to meeting the NOx reductions required to meet ozone standards. Although not incorporated specifically from another planning document strategy, the 2016 AQMP also provides numerous control measures for stationary sources (SCAQMD, 2017).

SCAQMD Rules and Regulations

The SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of business, processes, operations, and products to implement the AQMP and the various federal and State air quality requirements. In general, rules that would be applicable to Project development include:

- **Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.
- **Rule 445 (Wood Burning Devices)** prohibits installation of woodburning devices such as fireplaces and wood-burning stoves in new development unless the development is located at an elevation above 3,000 feet or if existing infrastructure for natural gas service is not available within 150-feet of the development.
- **Rule 481 (Spray Coating Operations)** imposes equipment and operational restrictions during construction for all spray painting and spray coating operations.

- **Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or lower.
- **Rule 1113 (Architectural Coatings)** establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.
- **Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package or repackage of any consumer paint thinner or multi-purpose solvent for use in the District unless consumer paint thinners or other multi-purpose solvents comply with applicable VOC content limits.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** specifies work practice requirements to limit asbestos emissions from building demolitions and renovation activities, including the removal and associated disturbance of asbestos containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, asbestos containing materials handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos containing waste materials.
- **Rule 2202 (On-Road Motor Vehicle Mitigation Options)** provides employers with options to reduce mobile source emissions generated from employee commutes. The rule applies to any employer who employs 250 or more employees on a full or part time basis at a worksite for a consecutive six-month period.

4.3.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to air quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Create objectionable odors affecting a substantial number of people.

Regional Significance Thresholds

The significance thresholds in the SCAQMD's *CEQA Air Quality Handbook* were used for evaluating the impacts associated with the implementation of the proposed Project. The SCAQMD has established mass daily thresholds for regional pollutant emissions, as shown in Table 4.3-4.

Table 4.3-4
SCAQMD Regional Emission Significance Thresholds

Air Contaminant	Construction (Maximum Pounds Per Day)	Operation (Maximum Pounds Per Day)
NO _x	100	55

4.3 – Air Quality

VOC	75	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
CO	550	550
Lead	3	3
Source: SCAQMD 2019b		

Localized Significance Thresholds

In addition to establishing thresholds of significance for emissions of criteria air pollutants on a regional level, the SCAQMD has also developed Local Significance Thresholds (LSTs) that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality impacts. The LST methodology takes into account a number of factors, including (1) existing ambient air quality in each Source Receptor Area (SRA); (2) how many acres the project would disturb in a day; and (3) how far project construction and operational activities would take place from the nearest sensitive receptor. Unlike the regional emission significance thresholds presented in Table 4.3-4, LSTs have only been developed for NO_x, CO, PM₁₀ and PM_{2.5}. The construction and operational LSTs for one-acre, two-acre, and five-acre sites in SRA 11 (South San Gabriel Valley), the SRA in which the City of Whittier is located, are shown in Table 4.3-5 below.

**Table 4.3-5
SCAQMD Localized Significance Thresholds for Source Receptor Area 30**

Pollutant	Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary				
	82 Feet	164 Feet	328 Feet	656 Feet	1,640 Feet
ONE-ACRE SITE					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO _x)	83	84	96	123	193
Carbon Monoxide (CO)	673	760	1,113	2,110	6,884
Particulate Matter (PM ₁₀)	5	13	29	60	153
Particulate Matter (PM _{2.5})	4	5	9	20	83
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO _x)	83	84	96	123	193
Carbon Monoxide (CO)	673	760	1,113	2,110	6,884
Particulate Matter (PM ₁₀)	1	4	7	15	37
Particulate Matter (PM _{2.5})	1	2	3	5	20
TWO-ACRE SITE					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO _x)	121	118	126	147	206
Carbon Monoxide (CO)	1,031	1,143	1,554	2,660	7,530

**Table 4.3-5
SCAQMD Localized Significance Thresholds for Source Receptor Area 30**

Pollutant	Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary				
	82 Feet	164 Feet	328 Feet	656 Feet	1,640 Feet
Particulate Matter (PM ₁₀)	7	22	37	68	162
Particulate Matter (PM _{2.5})	5	8	12	24	89
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO _x)	121	118	126	147	206
Carbon Monoxide (CO)	1,031	1,143	1,554	2,660	7,530
Particulate Matter (PM ₁₀)	2	6	9	17	39
Particulate Matter (PM _{2.5})	2	2	3	6	22
FIVE-ACRE SITE					
<i>Construction Thresholds</i>					
Nitrogen Oxides (NO _x)	183	176	184	202	245
Carbon Monoxide (CO)	1,814	1,984	2,549	4,024	9,342
Particulate Matter (PM ₁₀)	14	43	59	91	186
Particulate Matter (PM _{2.5})	9	12	19	34	104
<i>Operational Thresholds</i>					
Nitrogen Oxides (NO _x)	183	176	184	202	245
Carbon Monoxide (CO)	1,814	1,984	2,549	4,024	9,342
Particulate Matter (PM ₁₀)	4	11	15	22	45
Particulate Matter (PM _{2.5})	2	3	5	9	25
Source: SCAQMD 2009, modified by MIG					
Note: The localized thresholds for NO _x in this table account for the conversion of NO to NO ₂ . The emission thresholds are based on NO ₂ levels, as this is the compound associated with adverse health effects.					

Carbon Monoxide “Hot Spot” Thresholds

Historically, to determine whether a project poses the potential for a CO hotspot, the quantitative CO screening procedures provided in the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) were used (UCD ITS, 1997). The Protocol determines a project may worsen air quality if the project increases the percentage of vehicles in cold start modes by two percent or more; significantly increases traffic volumes by five percent or more; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. With new vehicles and improvements in fuels resulting in fewer emissions, the retirement of older polluting vehicles, and new controls and programs, CO concentrations have declined dramatically in California. As a result of emissions controls on new vehicles, the number of vehicles that can idle and the length of time that vehicles can idle before emissions would trigger a CO impact has increased, so the use of LOS as an indicator is no longer applicable for determining CO impacts.

The SCAQMD does not have a methodology for screening CO hotspots. However, the Bay Area Air Quality Management District (BAAQMD) developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD, 2017; pg. 3-4). To mirror this approach, SCAQMD performed CO modeling as part of its 2003 AQMP at four busy intersections during morning and evening peak hour periods in the LA portion of the South Coast Air Basin. The busiest intersection studied in the analysis—Wilshire Boulevard and Veteran Avenue—had 8,062 vehicles per hour during morning peak hours, 7,719 vehicles per hour during evening peak hours, and approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour CO concentration for this intersection was 4.6 ppm, which is less than a fourth of the 1-hour CAAQS CO standard (20 ppm) (SCAQMD, 2003a). Thus, the BAAQMD screening threshold is generally consistent with the results of the CO modeling conducted for the SCAQMD's 2003 AQMP. Therefore, for purposes of this EIR, the Project would pose the potential for a CO hotspot if it would exceed the BAAQMD's screening traffic level for peak hour intersection traffic volumes (44,000 vehicles per hour) (thereby having the potential to result in CO concentrations that exceed 1-hour State [20 ppm], 1-hour Federal [35 ppm], and/or State and Federal 8-hour [9 ppm] ambient air quality standards for CO).

Toxic Air Contaminant (TAC) Thresholds

The SCAQMD recommends preparation of a Health Risk Assessment (HRA) for large commercial or industrial projects to determine the specific health risks posed by long-term emissions of TACs from a project. Following OEHHA and SCAQMD guidance, health risks from TAC emissions are estimated based on "Individual Cancer Risk," which is the likelihood that a person exposed to TACs over 70-year lifetime will get cancer or suffer some other "non-cancer" effect (measured by what is called as a "hazard index"). Numerous weighting factors (e.g., age sensitivity factors, breathing rates, etc.) are applied during health risk calculations to account for those members of the public who may be more sensitive to pollution than others (e.g., sensitive receptors). A project is considered to have a significant impact if it results in any of the following:

- A maximum incremental cancer risk greater than or equal to 10 in one million;
- A population-wide cancer burden greater than 0.5 (in areas where cancer risk is greater than or equal to one in a million); or
- A chronic or acute hazard index greater than or equal to 1.0.

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

In another recent Supreme Court Ruling – *Sierra Club v. County of Fresno* 6 Cal. 5th 502 (2018) – the Supreme Court held that CEQA requires a Lead Agency to make a reasonable effort to provide an appropriate, project-specific context and connection between mass pollutant emissions estimates (i.e., pounds per day or tons per year) and the potential health impacts associated with such emissions estimates, or to explain what is and is not yet known about the Project’s “bare” emissions numbers and their potential adverse health impacts.

Consistent with these court rulings, the impact discussion presented below focuses on the proposed Project’s effect on air quality and existing health risks, rather than the effect of existing air quality and its potential risks on the proposed Project’s residents. The analysis evaluates whether the proposed Project would create or exacerbate adverse public health risk conditions at sensitive receptor locations, as identified in the SCAQMD’s CEQA significance criteria.

4.3.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to conflicts with an applicable air quality plan, cumulatively considerable net increases of criteria pollutants for which the region is in nonattainment, exposure of sensitive receptors to substantial pollutant concentrations, and objectionable odors, which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

Conflicts with Local Air Quality Plans

Impact Air-1 – Would the GPU conflict with or obstruct implementation of the applicable air quality plan?

Analysis of Impacts

As described in Section 4.3.1, the proposed Project is within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if the Project:

- 1) Is consistent with the growth assumptions in the AQMP; and
- 2) Does not increase the frequency or severity of an air quality standards violation, or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2016 AQMP. The 2016 AQMP was designed to achieve attainment for all criteria air pollutants within the Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. Therefore, if the growth under the proposed GPU is consistent with the regional population, housing, and employment forecasts identified by SCAG in the RTP/SCS, plan implementation would be consistent with the AQMP, even if emissions could potentially exceed the SCAQMD’s recommended daily emissions thresholds.

The proposed Project includes land use designations that support development of up to 53,649 dwelling units, accommodating a population of up to 161,291 residents by 2040. The Planning Area’s population would increase by approximately 20,190, from 141,102 in 2018 to 161,291 in 2040. The number of dwelling units would also increase, from 46,155 in 2018 to 53,649 dwelling units in 2040 (an increase of 7,494 dwelling units). Employment within the city limits would increase, from 33,764 jobs in 2018 to 35,160 jobs by 2040, an increase of 1,396 jobs. The 2016 RTP/SCS population and employment projections for the City of Whittier, as well as the

increase in population and employment that would occur with the implementation of the proposed Project, are shown in Table 4.3-6.

**Table 4.3-6
RTP/SCS and General Plan Update Growth Assumptions**

Scenario	Net New Population Growth	Net New Employment
Proposed GPU		
City	18,430	392
Sphere of Influence	1,759	1,004
Planning Area Total	20,190	1,396
RTC/SCS Growth 2012 - 2040	11,000	4,800
Within Growth Assumptions?	No	Yes
Source: SCAG, 2016; City of Whittier 2021.		

As shown in Table 4.3-6, the anticipated population growth under implementation of the proposed GPU would exceed SCAG's growth potential, while the new employment would not. Therefore, from a population growth standpoint, the proposed GPU would be inconsistent with the AQMP.

Consistency Criterion 2 refers to the CAAQS and NAAQS. As described in Section 4.3.1, the Basin is designated nonattainment for national and state O₃, PM₁₀, and PM_{2.5} standards. The analyses of potential emissions under Impact Air-2 indicates the GPU could result in significant emissions during construction activities. Some of these pollutants, such as NO_x and ROG, are ozone precursor pollutants, and the region is designated non-attainment for ozone. The analysis contained under Impact Air-2 also indicates the unmitigated operational NO_x emissions associated with implementation of the proposed GPU would exceed the SCAQMD-recommended CEQA thresholds of significance, which have been designed to bring the region into attainment for CAAQS and NAAQS.

2021 General Plan Update. The City's GPU Resource Management Element inventories and evaluates the existing natural resources within and around the City, including the lands, fossil fuels, water, wildlife, plants and trees, and air (City of Whittier, 2021). Access to parks, trails, open space, and recreational facilities promotes interconnectivity throughout the City via non-vehicular means, and improves health and air quality through exercise and the reduction of mobile source emissions, respectively. The following goals, policies, and programs contained in the Resource Management Element would be applicable to construction and operational emissions that would be generated in the Planning Area by the potential growth envisioned in the GPU.

Resource Management Element

Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

Policies

RM-3.1: Reduce emissions generated by motorized vehicles.

RM-3.2: Reduce energy use in municipal and construction operations.

RM-3.3: Support the use of energy-efficient design and renewable energy technologies in public and private spaces and development projects.

RM-3.4: Prioritize compact and equitable development that supports walking and biking to nearby destinations.

RM-3.5: Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.1: Select or identify appropriate trees for Whittier, focusing on native tree types and established tree types along corridors such as Beverly Boulevard.

RM-4.2: Increase the City's tree canopy.

RM-4.3: Promote and encourage community involvement in urban ecology projects that preserve or expand neighborhood green space, create space for communities to gather, and connect people to nature.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar, and reflective roofs).

Goal 5: Urban environments that guard against adverse air quality impacts on sensitive receptors.

Policies

RM-5.1: Comply with SCAQMD regulations and minimize adverse health impacts between facilities known to emit harmful contaminants, such as industrial uses and high traffic areas, and sensitive receptors such as schools, childcare facilities, and senior centers.

RM-5.2: Pursue projects that improve public health and leverage funding available to Disadvantaged Communities.

Goal 8: Managed oil and gas production that balances contributions to City revenue and environmental protection goals.

RM-8.3: Encourage diversification of Whittier's energy economy to conserve fossil fuels and improve air quality.

General Plan Analysis. Implementation of the proposed GPU would result in population growth that is in excess of that accounted for in the AQMP, while employment would be below that accounted for in the AQMP. The analysis conducted under Impact Air-2 demonstrates that the unmitigated net change in operational emissions between existing land uses in 2040 and those proposed by the GPU would exceed the SCAQMD's operational NO_x CEQA threshold of significance. Construction activities would also have the potential to exceed SCAQMD-recommended thresholds of significance. The SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD, 2003b; page D-3). Even though the mass amount of emissions attributable to a single project (i.e., pounds per day) does not necessarily contribute to air pollution levels measured throughout the Basin and in or near the City, the SCAQMD

considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant.

Summary and Conclusions. Since the proposed GPU could result in construction and operational emissions that exceed SCAQMD regional CEQA thresholds, the proposed Project could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards, particularly national and state ozone standards. This is considered a **potentially significant impact**.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

See Mitigation Measures AQ-1 and AQ-2.

Level of Significance After Mitigation

The population growth that could occur under the Project by 2040 would be inconsistent with the 2016 RTP/SCS growth forecast. As discussed under Impact Air-2, the incorporation of Mitigation Measure AQ-2 would reduce the net change in operational NO_x emissions to a level that is below the SCAQMD-recommended threshold of significance. Therefore, from a long-term operational standpoint, the proposed GPU would not substantially change emissions compared to if the existing land uses continued their operation in the Year 2040. Nonetheless, because it cannot be definitively known or stated at this time that construction emissions would be able to be mitigated such that all criteria air pollutant emissions would be below SCAQMD-recommended thresholds of significance, implementation of the proposed GPU could still increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards in the Basin. For this reason, the proposed GPU would be inconsistent with the AQMP. This impact would be **significant and unavoidable**.

Cumulatively Considerable Net Increase of Criteria Air Pollutants

Impact Air-2 – Would the GPU result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard?

Analysis of Impacts

The proposed GPU sets forth the City's vision for the types of development that would occur over the next approximately 20 years. The GPU's proposed land use designations permit slightly higher development intensity within the City boundaries than compared to the existing General Plan. Criteria air pollutant and other emissions would result from construction activities, and from the operation of residences, businesses, and other land uses within the City.

Project implementation would generate short-term construction and long-term operational emissions of regulated air pollutants (i.e., criteria air pollutants and TACs). These emissions would be released to the ambient air and disperse according to the topographic and meteorological influences that prevail near the Planning Area and in the greater Basin (see Section 4.3.1). The SCAQMD has not adopted plan-level significance thresholds; however, in developing its CEQA significance thresholds, the SCAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD, 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and

significant. The SCAQMD maintains regional and localized significance thresholds to assess how individual projects may affect air quality on large and small geographic scales. The potential for construction and operational emissions associated with GPU implementation to impact air quality on a regional and local level is discussed below.

Construction Emissions

The proposed GPU would not directly result in construction of any development or infrastructure; however, future development supported by the GPU would result in short-term construction-related criteria pollutant emissions that have the potential to have an adverse effect on air quality. Short-term criteria air pollutant emissions would occur during demolition, site preparation, grading, building construction, paving, and architectural coating activities associated with specific, new development projects. Emissions would occur from use of equipment, worker, vendor and hauling trips, and disturbance of onsite soils (fugitive dust). ROG and NO_x emissions are primarily associated with gas and diesel equipment exhaust and the application of architectural coatings. Fugitive dust emissions (PM₁₀ and PM_{2.5}) are primarily associated with site preparation and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and VMT by construction vehicles on- and off-site. Typical construction equipment associated with development and redevelopment projects includes, but is not limited to, dozers, graders, excavators, loaders, and trucks.

Although it is not possible to know the exact type, number, location, or duration of future construction projects, future development activities would generally entail demolition, site preparation, grading, building construction, paving, and painting. Since Whittier is generally a built-out city, many new projects in the City will likely require the demolition of existing structures to make room for newer ones. Fugitive dust (PM₁₀) emissions would typically be greatest during building demolition, site preparation, and grading due to the disturbance of soils and transport of material. NO_x emissions would also result from the combustion of diesel fuels used to power off-road heavy-duty pieces of equipment (e.g., backhoes, bulldozers, excavators, etc.). ROG emissions would generally be greatest during architectural coating activities. The types and quantity of equipment, as well as duration of construction activities, would be dependent on project-specific conditions. Larger projects would require more equipment over a longer timeframe than that required for redevelopment of a single, residential home or small residential or mixed-use project.

Given the speculative nature of construction activities that could occur under implementation of the proposed GPU, it is not possible at this time to accurately assess the level of emissions that would be generated by future development and redevelopment activities in the City. It is possible that either no construction could be occurring within the City at any given time, or multiple projects could be occurring simultaneously. Despite these unknowns, it is plausible that one or more projects developed under implementation of the proposed GPU could have the potential to exceed one or more of the SCAQMD's construction criteria air pollutant threshold of significance (e.g., NO_x for a project involving a substantial amount of earthwork during grading, ROG during architectural coating activities, etc.). Therefore, this impact is potentially significant and requires mitigation.

Operational Emissions

If adopted, the proposed GPU would accommodate new residential and non-residential land uses, some of which would involve replace existing development. Overall, project implementation would increase residential dwelling units and non-residential square footage in the City under year 2040 growth conditions.

Growth under the Project would result in long-term regional emissions of criteria air pollutants associated with the operation of area sources, energy sources, and mobile sources. Area source emissions, which are widely distributed and made of many small emissions sources (e.g., landscaping equipment, consumer products, painting operations, etc.), were modeled according to the size and type of land uses proposed. Energy sources, which include natural gas combustion for heating and other purposes, were also modeled based on the size and type of land uses included in the Project's 2040 growth forecast. Mobile-source emissions were modeled based on the daily vehicle trips that would result from the proposed Project. The net change in emissions of regulated air pollutants that would occur with implementation of the GPU was modeled using CalEEMod, V. 2016.3.2. The net change in operational emissions for the Project was modeled based on the Project's 2040 growth projection, using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- **Land Use Development:** The default acreage and square footage for proposed development intensities within the Planning Area was adjusted to reflect proposed development conditions (considering allowable floor-to-area ratio, acreage in the planning area, etc.).
- **Area Sources:** Woodstoves and hearths were excluded from new development pursuant to SCAQMD Rule 445.
- **Energy Use and Consumption:** The default energy intensity values for the mid-rise apartments were adjusted downwards to reflect increased energy efficiency and solar photovoltaic requirements of the 2019 energy code (CEC, 2018). The remaining land uses were assumed to be built to the 2016 energy code, which is a slight improvement over existing conditions (currently assumed to be built to the 2013 energy code, as discussed in Section 4.3.1). The slight increase in energy improvements is considered indicative of the relatively minor land uses changes proposed by the GPU (i.e., generally along Whittier Boulevard).
- **Mobile Sources**
 - **Trip Generation and Distance:** As described in Section 4.3.1, an average trip distance of approximately 8.17 miles was derived from a default CalEEMod run. This trip distance was used in conjunction with the average, daily VMT estimate prepared by Fehr and Peers for the proposed land uses (5,885,614 miles per day) and a multiplication factor of 347 days per year, the same factor used in CARB's 2000-2012 Greenhouse Gas Emissions Inventory, to derive an annualized VMT estimate of approximately 2,042,308,058 annual VMT (CARB, 2014; Fehr and Peers, 2021). New weekday and weekend trip generation rates were developed for CalEEMod based on the total, annual vehicle trips and initial weekday/weekend trip generation accounted for in CalEEMod.
 - **Emission Factors:** Vehicle emission factors were updated based on derived EMFAC20201 (version 1.0.1) emission rates for Los Angeles County (South Coast Air Basin) in the Year 2040, consistent with the methodology described in the CalEEMod User's Guide Appendix A (CAPCOA, 2017b).

The net change in long-term operational emissions that would be generated by Project growth is shown in Table 4.3-7. As explained in Section 4.3.1, under the "Existing Emissions Levels in the Planning Area" discussion, the net change in emissions evaluated in this EIR is based on the difference between the existing land uses under future year 2040 conditions and the proposed Project land uses under 2040 growth conditions.

As shown in Table 4.3-7, maximum daily operational emissions associated with potential 2040 growth under the Project do not exceed the SCAQMD’s recommended regional pollutant thresholds for all pollutants except NO_x. The increase in NO_x, as well as other mobile source emissions, is attributable to the increase in VMT that would occur with implementation of the Project as well as an increase in area source emissions. As described in Section 4.3.1, the South Coast Air Basin is designated nonattainment for national and state ozone standards, and NO_x is an ozone precursor pollutant.

Area sources (gas fireplaces and landscaping equipment) and mobile sources account for nearly 89% of the NO_x emissions estimated to occur with buildout of the proposed GPU. The TIA prepared by Fehr & Peers for the proposed GPU indicates that the proposed land uses in the GPU would result in a significant VMT impact if left unmitigated. Mitigation Measures VMT-1, VMT-2 and VMT-3 have been incorporated into the Project to reduce the magnitude of the VMT impact and consist of expanding the local transit network, improving the bicycle and pedestrian network as envisioned in the City’s Bicycle Master Plan and General Plan, and promoting telecommuting and alternative work schedules. The VMT reductions attributable to Mitigation Measures VMT-1, VMT-2 and VMT-3 have not been incorporated into the mobile source emissions estimates provided in Table 4.3-7; however, the increase in emissions from area sources alone would be significant if left unmitigated. Approximately 94% (114 pounds per day) of the net change in NO_x emission from area sources would be from operation of gas fireplaces, while the remaining 6% (7 pounds per day) would be from landscaping equipment.

**Table 4.3-7
2040 Project Growth Forecast Operational Emissions**

Emissions Scenario	Maximum Daily Pollutant Emissions (Pounds per Day) ^(A)									
	ROG	NO _x	CO	SO ₂	PM ₁₀			PM _{2.5}		
					Dust	Exhaust	Total	Dust	Exhaust	Total
Project Growth Forecast Operational Emissions in Year 2040										
Area Sources	13,599	1,123	26,653	58	0	3,368	33,688	0	3,368	3,367
Energy Sources	39	339	157	2	0	27	27	0	27	27
Mobile Source	1,058	1,579	10,790	40	4,204	21	4,225	1,051	20	1,071
<i>Total^(B)</i>	<i>14,697</i>	<i>3,041</i>	<i>37,600</i>	<i>100</i>	<i>4,204</i>	<i>3,416</i>	<i>7,620</i>	<i>1,051</i>	<i>3,415</i>	<i>4,466</i>
Existing Land Uses Year 2040 Condition^(D)										
Area Sources	13,919	1,001	27,265	60	0	3,547	3,547	0	3,547	3,547
Energy Sources	43	367	168	2	0	30	30	0	30	30
Mobile Source	1,001	1,493	10,202	38	3,975	20	3,995	994	19	1,013
<i>Total^(B)</i>	<i>14,963</i>	<i>2,862</i>	<i>37,635</i>	<i>100</i>	<i>3,975</i>	<i>3,596</i>	<i>7,571</i>	<i>994</i>	<i>3,595</i>	<i>4,589</i>
Net Change in Emissions Levels										
Area Sources	-320	122	-612	-2	0	-179	30,141	0	-179	-180
Energy Sources	-4	-28	-11	0	0	-3	-3	0	-3	-3
Mobile Source	57	86	588	2	229	1	230	57	1	58
<i>Total^(B)</i>	<i>-266</i>	<i>179</i>	<i>-35</i>	<i>0</i>	<i>229</i>	<i>-180</i>	<i>49</i>	<i>57</i>	<i>-180</i>	<i>-123</i>
SCAQMD CEQA Threshold	75	100	550	150	150			55		
Threshold Exceeded?	No	Yes	No	No	No			No		
Source: MIG, 2021 (see Appendix D) and SCAQMD 2019b.										
(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise										

noted in this document. Maximum daily ROG, CO, SOX emissions occur during the summer. Maximum daily NOX, PM10, and PM2.5 emissions occur during the winter.
(B) Totals may not equal due to rounding.
(C) See Table 4.3-3.

2021 General Plan Update. The City’s GPU Resource Management Element inventories and evaluates the existing natural resources within and around the City, including the lands, fossil fuels, water, wildlife, plants and trees, and air (City of Whittier, 2021). Access to parks, trails, open space, and recreational facilities promotes interconnectivity throughout the City via non-vehicular means, and improves health and air quality through exercise and the reduction of mobile source emissions, respectively. The following goals, policies, and programs contained in the Resource Management Element would be applicable to construction and operational emissions that would be generated in the Planning Area by the potential growth envisioned in the GPU.

Resource Management Element

Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

Policies

RM-3.1: Reduce emissions generated by motorized vehicles.

RM-3.2: Reduce energy use in municipal and construction operations.

RM-3.3: Support the use of energy-efficient design and renewable energy technologies in public and private spaces and development projects.

RM-3.4: Prioritize compact and equitable development that supports walking and biking to nearby destinations.

RM-3.5: Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.1: Select or identify appropriate trees for Whittier, focusing on native tree types and established tree types along corridors such as Beverly Boulevard.

RM-4.2: Increase the City’s tree canopy.

RM-4.3: Promote and encourage community involvement in urban ecology projects that preserve or expand neighborhood green space, create space for communities to gather, and connect people to nature.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar, and reflective roofs).

Goal 5: Urban environments that guard against adverse air quality impacts on sensitive receptors.

Policies

RM-5.1: Comply with SCAQMD regulations and minimize adverse health impacts between facilities known to emit harmful contaminants, such as industrial uses and high traffic areas, and sensitive receptors such as schools, childcare facilities, and senior centers.

RM-5.2: Pursue projects that improve public health and leverage funding available to Disadvantaged Communities.

Goal 8: Managed oil and gas production that balances contributions to City revenue and environmental protection goals.

RM-8.3: Encourage diversification of Whittier’s energy economy to conserve fossil fuels and improve air quality.

Level of Significance Before Mitigation

Construction Emissions. As discussed above, construction emissions associated with future development activities facilitated under implementation of the proposed GPU could exceed SCAQMD-recommended CEQA significance thresholds for regional criteria air pollutant emissions. This is considered a **potentially significant impact**.

Operational Emissions. As shown in Table 4.3-7, the modeled, maximum daily operational emission associated with potential 2040 growth under the Project would result in NOx emissions that exceed SCAQMD-recommended CEQA significance thresholds. This is considered a **potentially significant impact**. All other potential Project emissions would be below SCAQMD-recommended CEQA significance thresholds.

Mitigation Measures

AQ-1 Require a Project-level Construction Assessment for New Discretionary Development Projects. The City shall require applicants to submit a quantitative project-level construction criteria air pollutant and toxic air contaminant emissions analysis for future discretionary development projects. The estimated construction criteria air pollutant and toxic air contaminant emissions shall be compared against the thresholds of significance maintained by the South Coast Air Quality Management District (SCAQMD) and, if emissions are shown to be above SCAQMD thresholds, the City shall require the imposition and implementation of mitigation to reduce emissions below the thresholds that have been exceeded. Mitigation to reduce emissions could include, but are not limited to:

- Selection of specific construction equipment (e.g., specialized pieces of equipment with smaller engines or equipment that will be more efficient and reduce engine runtime);
- Requiring equipment to use alternative fuel sources (e.g., electric-powered and liquefied or compressed natural gas), meet cleaner emission standards (e.g., U.S. EPA Tier IV Final emissions standards for equipment greater than 50-horsepower), and/or utilizing added exhaust devices (e.g., Level 3 Diesel Particular Filter);
- Minimizing the idling time of diesel-powered construction equipment to two minutes; and
- Application of Low-VOC paints to interior and/or exterior surfaces (e.g., paints that meet SCAQMD Rule 1113 “Low-VOC” or “Super-Compliant” requirements).

AQ-2 Prohibit the Installation of Natural Gas Hearths in New Residential Development.

The City shall prohibit the installation of new natural gas hearths/fireplaces in new residential development. Natural gas hearths/fireplaces may be incorporated into remodels / redevelopment if the existing structure(s) proposed for remodel / redevelopment featured natural gas hearths/fireplaces; however, the quantity of natural gas hearths/fireplaces provided by the new structure(s) may not exceed that present prior to the remodel / redevelopment and must meet the most recent U.S. EPA, CARB, and/or SCAQMD emissions standards in effect at the time of building permit issuance.

Level of Significance After Mitigation

Construction Emissions. As described in the preceding analysis, there is uncertainty regarding the specific nature of construction activities that would be facilitated under implementation of the proposed GPU. Despite the implementation of Mitigation Measure AQ-1, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation if emissions levels are shown to be above SCAQMD-recommended thresholds of significance, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed GPU would be able to reduce potential criteria air pollutant emissions to levels that are below SCAQMD thresholds. Therefore, with regard to criteria air pollutant emission generated during construction activities, this impact would be **significant and unavoidable** even with the incorporation of feasible mitigation measures.

Operational Emissions. Mitigation Measure AQ-2 would eliminate the potential for NOx emissions to be generated during the combustion of natural gas in new hearths/fireplaces. As such, there would be no net change in NOx emissions from this source. The implementation of Mitigation Measure AQ-2 would reduce the estimated net change in NOx emissions by at least 114 pounds per day, resulting in a new net change in total NOx emissions of approximately 65 pounds per day. This new mitigated emissions level would be below the SCAQMD-recommended operational NOx threshold of 100 pounds per day. Therefore, with the incorporation of Mitigation Measure AQ-2, operational criteria air pollutant emissions associated with the proposed GPU would be **less than significant**. The implementation of Mitigation Measures VMT-1, VMT-2 and VMT-3 would also have a co-benefit of reducing mobile source emissions but would not be necessary from an air quality perspective to render operational criteria air pollutant emissions less than significant.

Exposure of Sensitive Receptors to Pollutants

Impact Air-3 – Would the GPU expose sensitive receptors to substantial pollutant concentrations?

Analysis of Impacts

Growth projected to occur under the Project could expose existing and new sensitive receptors to substantial concentrations of criteria air pollutants and TAC emissions that pose adverse health effects. The potential for the proposed GPU to expose sensitive receptors to substantial pollutant concentrations is evaluated below.

CO Hotspots

Based on the TIA prepared for the proposed GPU (see Appendix D), the maximum number of vehicles moving through any study analysis zone under the Project's 2040 growth project would be 5,670 vehicles through the intersection of Whittier Boulevard and Colima Road (during AM

and PM peak hours). This level of traffic is substantially below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis (See Section 4.3.3). Therefore, the Project would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO. This impact would be less than significant.

Construction Emissions

As discussed under Impact Air2, future development activities facilitated under implementation of the proposed GPU would generate emissions, including emissions of DPM (a TAC), during construction activities. These emissions would occur intermittently over the approximately 20-year growth period associated with the Project. Although specific details regarding project development within the Planning Area are not known at this time, it is possible that one or more projects developed under implementation of the proposed GPU could have the potential to exceed SCAQMD LSTs and thresholds of significance for cancerogenic and non-cancerogenic health risks (see Section 4.3.3).⁴

Operational Emissions

As shown in Table 4.3-7, implementation of the proposed GPU would generally reduce the quantity of criteria air pollutants emitted by land uses within the City. As discussed previously, the SCAQMD's CEQA thresholds were developed to attain the CAAQS and NAAQS. In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS is intended to protect the most sensitive individuals. As described under Impact Air-2, the proposed GPU's operational emissions would be able to be mitigated such that no SCAQMD CEQA threshold for criteria air pollutants would be exceeded. Therefore, the proposed GPU would not generate operational emissions such that receptor exposure to substantial pollutant concentrations would occur. Even if operational emissions were to have exceeded the SCAQMD's thresholds, a significant impact would likely have not occurred. In the amicus brief filed by the SCAQMD on the California Supreme Court's decision in *Sierra Club versus County of Fresno*, the SCAQMD noted that, "[it] takes a large amount of additional precursor emissions [e.g., NOx] to cause a modeled increase in ambient ozone levels... a project emitting only 10 tons per year of NOx or VOC is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models used to determine ozone levels..." (SCAQMD, 2015). The proposed GPU primarily focuses new / redevelopment along Whittier Boulevard; it does not reimagine the City in a manner that would substantially increase the quantity of highly polluting land uses (e.g., industrial facilities). Therefore, the changes in land use proposed by the GPU do not have the potential to alter the city-wide emissions profile in a manner that could exacerbate or contribute to significant health risks at or in proximity of the Planning Area.

Exacerbation of Existing Sources of Pollutants

Project growth would add new residential development in the city and could place new, sensitive receptors in proximity to existing sources of emissions such as Whittier Boulevard and local stationary sources of emissions.

⁴ In addition to criteria air pollutant emissions on a regional scale and TAC emissions on a local scale, receptor exposure to elevated concentrations of criteria air pollutants (e.g., CO, O₃, and PM) is capable of causing adverse health effects on heart, lung, and other organ systems. As described under Section 4.3.3, the LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality impacts.

Per the recent ruling by the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015), projects are not required to analyze how existing conditions might impact a project's future users or residents. As such, this analysis does not focus on potential, future receptor exposure to existing emissions from existing sources of pollutants in and near the City. Rather, it focuses on the incremental increase in pollutant concentrations and associated impacts (including adverse health impacts) that could occur if existing operations were to change as a result of Project growth.

Under the 2040 growth projection, the proposed GPU would increase the number of residents in the Planning Area from approximately 141,102 people to approximately 161,291 people, an increase of approximately 20,190 people (14% increase). The proposed GPU would also result in a net increase of approximately 175,236 square feet of non-residential building square footage. Although this growth would occur throughout the City, it would occur primarily in areas focused for redevelopment, such as Whittier Boulevard. The growth envisioned under the Project would generate long-term emissions, primarily associated with area and mobile sources that would combust natural gas or gasoline. As described under Impact Air-2, emissions of operations-related criteria air pollutants would be below SCAQMD significance thresholds after mitigation and would not result in, nor substantially exacerbate, substantial pollutant concentrations at sensitive receptor locations.

Additional Information on Existing Sources of Pollutants

The proposed GPU could result in new sensitive receptors being exposed to significant sources of TAC emissions. The CARB *Air Quality and Land Use Handbook* recommends avoiding the siting of new sensitive land uses (e.g., residences, schools, etc.) within:

- 300 feet of large gasoline fueling stations (with a throughput of more than 3.6 million gallons of gasoline per year);
- Within 300 feet of dry cleaning operations;
- Within 500 feet of freeways, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day; and
- Within 1,000 feet of a major rail service or maintenance yard.

The County of Los Angeles Department of Public Health, in its *Air Quality Recommendations for Local Jurisdictions*, also recommends a buffer of at least 500 feet between freeways and sensitive land uses.

A review for gas stations and dry-cleaning facilities within the Planning Area indicates there may be eight (8) dry cleaning facilities and approximately 14 gas station facilities located within the City. The gas stations are generally located along Greenleaf Avenue and Whittier Boulevard. There are existing, residential receptors near these facilities, in some cases within 300 feet. The proposed GPU would locate some new residences within 300 feet of these locations, but incorporates General Plan Program RM 35, which would require that any development project that houses sensitive receptors include design features and equipment, as necessary, to mitigate any significant negative air quality impact on project occupants from the existing environment. I-605 is also a major roadway with an ADT of more than 100,000 near the City; however, the Project does not propose siting new sensitive receptors within 500 feet of this roadway.

Although the potential exists for the Project to result in new sensitive residential receptors near existing sources of emissions, the Project would not exacerbate pollutant concentrations or

health risks associated with emissions sources and, therefore, would not materially change the existing environmental risks present in the project area.

2021 General Plan Update. The City’s GPU Resource Management Element inventories and evaluates the existing natural resources within and around the City, including the lands, fossil fuels, water, wildlife, plants and trees, and air (City of Whittier, 2021). Access to parks, trails, open space, and recreational facilities promotes interconnectivity throughout the City via non-vehicular means, and improves health and air quality through exercise and the reduction of mobile source emissions, respectively. The following goals, policies, and programs contained in the Resource Management Element would be applicable to construction and operational emissions that would be generated in the Planning Area by the potential growth envisioned in the GPU.

Resource Management Element

Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

Policies

RM-3.1: Reduce emissions generated by motorized vehicles.

RM-3.2: Reduce energy use in municipal and construction operations.

RM-3.3: Support the use of energy-efficient design and renewable energy technologies in public and private spaces and development projects.

RM-3.4: Prioritize compact and equitable development that supports walking and biking to nearby destinations.

RM-3.5: Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.1: Select or identify appropriate trees for Whittier, focusing on native tree types and established tree types along corridors such as Beverly Boulevard.

RM-4.2: Increase the City’s tree canopy.

RM-4.3: Promote and encourage community involvement in urban ecology projects that preserve or expand neighborhood green space, create space for communities to gather, and connect people to nature.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar, and reflective roofs).

Goal 5: Urban environments that guard against adverse air quality impacts on sensitive receptors.

Policies

4.3 – Air Quality

RM-5.1: Comply with SCAQMD regulations and minimize adverse health impacts between facilities known to emit harmful contaminants, such as industrial uses and high traffic areas, and sensitive receptors such as schools, childcare facilities, and senior centers.

RM-5.2: Pursue projects that improve public health and leverage funding available to Disadvantaged Communities.

Goal 8: Managed oil and gas production that balances contributions to City revenue and environmental protection goals.

RM-8.3: Encourage diversification of Whittier’s energy economy to conserve fossil fuels and improve air quality.

Level of Significance Before Mitigation

CO Hotspots. The proposed GPU would not exceed the screening threshold of 44,000 vehicles per hour. Therefore, it would not result in a CO hotspot. This impact would be less than significant.

Construction Emissions. As discussed under the preceding analysis and Impact Air-2, construction emissions associated with future development activities facilitated under implementation of the proposed GPU could exceed SCAQMD construction LSTs and cancerogenic and non-cancerogenic threshold maintained and recommended by the SCAQMD. This is considered a **potentially significant impact**.

Exacerbation of Existing Sources of Pollutants. Implementation of the proposed GPU would not exacerbate existing sources of pollutants in and near the Planning Area. This impact would be less than significant.

Additional Information on Existing Sources of Pollutants. This information has been provided for informational purposes and is not considered part of the CEQA analysis.

Mitigation Measures

See Mitigation Measure AQ-1.

Level of Significance After Mitigation

CO Hotspots. Not applicable.

Construction Emissions. There is uncertainty regarding the specific nature of construction activities that would be facilitated under implementation of the proposed GPU. Despite the implementation of Mitigation Measure AQ-1, which requires the preparation of project-specific air quality analysis prior to the construction of any new development and incorporation of mitigation if emissions levels are shown to be above SCAQMD-recommended thresholds of significance for cancerogenic and non-cancerogenic risks, as well as SCAQMD LSTs, it cannot be definitively known or stated at this time that all future development projects occurring under implementation of the proposed GPU would be able to reduce potential risks and localized construction air pollutant emissions to levels that are below SCAQMD thresholds. Therefore, with regard to localized criteria air pollutant and TAC emissions generated during future construction activities, this impact would be **significant and unavoidable** even with the incorporation of feasible mitigation measures.

Exacerbation of Existing Sources of Pollutants. Not applicable.

Additional Information on Existing Sources of Pollutants. Not applicable.

Objectionable Odors

Impact Air-4 – Would the GPU result in other emissions such as those leading to odors adversely affecting a substantial number of people?

Analysis of Impacts

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The Project does not support such sources, and there are no such active sources in or near the Planning Area (the Operating Industries, Inc. landfill is closed).

Construction occurring within the Planning Area could produce odors from fuel combustion or solvents/paints used. These odors would be temporary, quickly disperse, and would not affect a substantial number of people.

Under the 2040 growth projection, the Project would increase the amount of residential and non-residential development in the city, including multi-family development that could be located close to retail, restaurant, and other commercial land uses that may generate localized sources of odors that may or may not be objectionable to nearby residential land uses.

The Project does not in and of itself permit or authorize any new, major sources of potential odors (e.g., wastewater treatment plant), and odor impacts would be less than significant with standard environmental review practices.

Level of Significance Before Mitigation

The potential impacts associated with objectionable odors under the proposed GPU would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

No applicable.

Cumulative Impacts

Impact Air-5 – Would the GPU cause substantial adverse cumulative impacts with respect to Air Quality?

Analysis of Impacts

As described in Section 4.3.1, the South Coast Air Basin is designated nonattainment for national and State O₃ standards, national and State PM_{2.5} standards, and national PM₁₀ standards. The SCAQMD, in developing its CEQA significance thresholds, considered the emission levels at which a project's individual emissions would be cumulatively considerable (SCAQMD, 2003b; page D-3). The SCAQMD considers projects that result in emissions that exceed its CEQA significance thresholds to result in individual impacts that are cumulatively considerable and significant.

The analyses of emissions associated with potential Project growth in 2040 under Impact Air-1 and Impact Air-2 indicates the proposed GPU would result in population growth that exceeds SCAQMD planning assumptions in the AQMP, and ozone precursor (e.g., NO_x and ROG) and

PM emissions during construction activities could exceed applicable SCAQMD thresholds of significance. Unmitigated NO_x emissions during operation of the land uses proposed by the GPU could also exceed the applicable SCAQMD threshold of significance.

Level of Significance Before Mitigation

The Project's 2040 growth projection and associated construction and operational emissions could result in population growth that is not consistent with the planning assumptions and emissions levels that exceed SCAQMD-recommended CEQA thresholds of significance. This is a **potentially significant impact**.

Mitigation Measures

See Mitigation Measures AQ-1 and AQ-2.

Level of Significance After Mitigation

Mitigation Measure AQ-1 would require applicants prepare project-specific air quality analyses and incorporate mitigation, as necessary, to reduce exhaust emissions of NO_x and other pollutants from construction vehicles; however, since specific development projects are unknown, it cannot be assured that all future development would be able to reduce emissions below SCAQMD thresholds. Mitigation Measure AQ-2 would prohibit the construction of new natural gas hearths/fireplaces in the City, and would reduce operational NO_x emissions below the SCAQMD threshold. Nonetheless, because the population growth envisioned by the proposed GPU exceeds that accounted for in the 2016 AQMP and future construction activities could result in ozone precursor and PM emissions that exceed SCAQMD thresholds, the Project could increase the frequency and/or severity of air quality violations in the Basin or otherwise impede attainment of air quality standards. Therefore, this impact would be **significant and unavoidable**.

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List of Acronyms, Abbreviations, and Symbols

Acronym / Abbreviation	Full Phrase or Description
AB	Assembly Bill
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
Basin	South Coast Air Basin
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	Carbon monoxide
DPM	Diesel particulate matter
EIR	Environmental Impact Report
GVWR	Gross vehicle weight rating
H ₂ S	Hydrogen sulfide
HAP	Hazardous Air Pollutants
HRA	Health Risk Assessment
I	Interstate
lbs	Pounds
LOS	Level of Service
LST	Localized Significance Threshold
m ³	Cubic meter
MPO	Metropolitan Planning Organization

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	Full Phrase or Description
NAAQS	National Ambient Air Quality Standards
NO	Nitrogen oxide
NO ₂	Nitrogen dioxide
NO _x	Oxides of nitrogen
NTP	United State National Toxicology Program
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
PM	Particulate matter
ppb	Parts per billion
ppm	Parts per million
PM _{2.5}	Fine particulate matter
PM ₁₀	Coarse particulate matter
ROG	Reactive organic gases
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SO ₄ ²⁻	Sulfates
SO _x	Oxides of sulfur
SRA	Source Receptor Area
TAC	Toxic Air Contaminants
TIA	Traffic Impact Analysis
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
V.	Version
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
µg	Micrograms
%	Percent
° C	Degrees Celsius
° F	Degrees Fahrenheit

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	Full Phrase or Description
HRA	Health Risk Assessment
I	Interstate
lbs	Pounds
LOS	Level of Service
LST	Localized Significance Threshold
m ³	Cubic meter
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO	Nitrogen oxide
NO ₂	Nitrogen dioxide
NO _x	Oxides of nitrogen
NTP	United State National Toxicology Program
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
PM	Particulate matter
ppb	Parts per billion
ppm	Parts per million
PM _{2.5}	Fine particulate matter
PM ₁₀	Coarse particulate matter
ROG	Reactive organic gases
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SO ₄ ²⁻	Sulfates
SO _x	Oxides of sulfur
SRA	Source Receptor Area
TAC	Toxic Air Contaminants
TIA	Traffic Impact Analysis
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
V.	Version
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
µg	Micrograms
%	Percent
° C	Degrees Celsius
° F	Degrees Fahrenheit

4.4 – Biological Resources

This EIR chapter addresses biological resource impacts associated with implementation of the General Plan Update (GPU). Issues of interest are biological resources impacts identified by the CEQA Guidelines are whether the GPU will: (1) cause a substantial adverse effect on special status wildlife species; (2) have a substantial effect on any riparian habitat/sensitive natural communities; (3) have a substantial adverse effect on state or federally protected wetlands; (4) interfere substantially with wildlife movement or use of wildlife nurseries; (5) conflict with local policies protecting biological resources; or (6) conflict with the provision of an adopted habitat conservation plan.

4.4.1 – ENVIRONMENTAL SETTING

The Planning Area is located on the Whittier 7.5-minute series United States Geological Survey (USGS) topographic quadrangle map. The southwestern portion of the Planning Area is relatively flat with elevations ranging from 150 feet above mean sea level (AMSL) near Whittier Boulevard to 500 feet ASML in the hillside neighborhoods. The northeastern portion of the Planning Area varies with moderate and steep slopes and steadily increases in elevation from 500 ASML in the hillside neighborhoods up to 1,400 AMSL in the Puente Hills Reserve. While the southwestern portion and hillside neighborhoods of the Planning Area are almost completely developed, the northeastern portion of the Planning Area is sparsely developed and is characterized primarily by open space and natural areas. Parks and open space areas are common throughout the Planning Area. While open space and natural areas are located largely in the Puente Hills Preserve area, Whittier's park system consists of four large community parks, 15 neighborhood parks, two wilderness parks, sports fields, a dog park, and a Greenway Trail (Whittier, 2017). The Puente Hills preserve is undeveloped and provides unique ecological conditions, some of which are designated as Significant Ecological Areas (SEAs). SEAs are defined by Los Angeles County as having irreplaceable biological resources. These areas represent the wide-ranging biodiversity of the County and contain some of the County's most important biological resources. There are SEAs in the Puente Hills Reserve that are located within the Planning Area (Whittier, 2017).

Wildlife and Sensitive Species

Wildlife known to occur within the Planning Area consists of avian, reptile, and mammal species that occupy urban areas. The vast majority of wildlife species diversity in the Planning Area occurs in the Puente Hills Preserve in the northeastern portion of the Planning Area. Avian species are known to occur within all areas of the Planning Area, including the urbanized areas to the southwestern. The "sensitive" or "special" label denotes a species as a State or Federally listed threatened or endangered species and/or a potential candidate for threatened or endangered listing. The United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), California Natural Diversity Database (CNDDB) recorded the following species in Table 4.4-1 as historically occurring within 1-mile of the Planning Area. Most of these species have low potential to occur or are not expected to occur due to the marginal suitable habitat available or lack of habitat. However, some species have a high potential to occur within the Puente Hills Preserve in the northeastern portion of the Planning Area.

**Table 4.4-1
Federal- and State-Listed Species and other Special Status Species**

Type	Scientific Name	Common Name	Federal, State, or Other Status	Potential Occurrence in Planning Area
Amphibians	<i>Spea hammondii</i>	Western spadefoot	SSC	High potential to occur in PHP* grasslands
Birds	<i>Circus hudsonius</i>	Northern harrier	SSC	High potential to occur in PHP grasslands
	<i>Chaetura vauxi</i>	Vaux’s swift	SSC	Low
	<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	FT, SE	Low
	<i>Progne subis</i>	Purple martin	SSC	Low
	<i>Riparia riparia</i>	Bank swallow	ST	Low
	<i>Icteria virens</i>	Yellow-breasted chat	SSC	High potential to occur in PHP riparian.
	<i>Setophaga petechia</i>	Yellow warbler	SSC	Low
	<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT, SSC	High Potential to occur in PHP coastal sage scrub
	<i>Athene cunicularia</i>	Burrowing owl	SSC	High potential to occur in PHP grasslands and coastal sage scrub.
	<i>Contopus cooperi</i>	Olive-sided flycatcher	SSC	Low
	<i>Pyrocephalus rubinus</i>	Vermillion flycatcher	SSC	Low
	<i>Vireo bellii pusillus</i>	Least Bell’s vireo	FE, SE	Low
Fish	<i>Catostomus santaanae</i>	Santa Ana sucker	FT	Low
	<i>Gila orcuttii</i>	Arroyo chub	SSC	Low
	<i>Rhinichthys osculus ssp. 3</i>	Santa Ana speckled dace	SSC	Low
Insects	<i>Bombus crotchii</i>	Crotch bumble bee	SCE	Low
Mammals	<i>Eumops perotis californicus</i>	Western mastiff bat	SSC	Low
	<i>Microtus californicus stephensi</i>	South coast marsh vole	SSC	Low
	<i>Neotoma lepida intermedia</i>	San Diego Desert woodrat	SSC	High potential to occur in PHP coastal sage scrub.
	<i>Taxidea taxus</i>	American badger	SSC	Low
	<i>Antrozous pallidus</i>	Pallid bat	SSC	Low
	<i>Lasiurus blossevillii</i>	Western red bat	SSC	Low
	<i>Lasiurus xanthinus</i>	Western yellow bat	SSC	Low
Reptiles	<i>Aspidoscelis tigris stenjnegeri</i>	Coastal whiptail	SSC	Low
	<i>Crotalus ruber</i>	Red-diamond rattlesnake	SSC	High potential to occur in PHP coastal sage scrub.
Plants	<i>Lasthenia glabrata ssp. coulteri</i>	Coulter’s goldfields	1B.1	Low
	<i>Symphyotricum defoliatum</i>	San Bernardino aster	1B.2	Low
	<i>Atriplex parishii</i>	Parish’s brittle scale	1B.1	Low

Type	Scientific Name	Common Name	Federal, State, or Other Status	Potential Occurrence in Planning Area
	<i>Calystegia felix</i>	Lucky morning-glory	1B.1	Low
	<i>Dudleya multicaulis</i>	Many-stemmed dudleya	1B.2	Low
	<i>Juglans californica</i>	Southern California black walnut	4.2	Low
	<i>Calochortus plummerae</i>	Plummer’s mariposa-lily	4.2	Low
	<i>Calochortus weedii</i> var. <i>intermedius</i>	Intermediate mariposa-lily	1B.2	Low
	<i>Orcuttia californica</i>	California Orcutt grass	FE, SE, 1B.1	Low
	<i>Navarretia prostrata</i>	Prostrate vernal pool navarretia	1B.2	Low

Relevant Species Status Codes:

FE = Federally listed as endangered; FT = Federally Threatened ; FSC = Federal Special Concern Species (a “term-of-art” for former Category 2 candidates);

ST = State Threatened; SE = State-listed as Endangered; SCE = State Candidate Endangered; SSC = California Special Concern species by CDFW;

1B.1 = Plants rare, threatened, or endangered in California and elsewhere, seriously threatened in California; 1B.2 = Plants rare, threatened, or endangered in California or elsewhere, fairly threatened in California; 4.2 = Plants of limited distribution, fairly threatened in California.

** PHP = Puente Hills Preserve*

Source: California Natural Diversity Database. November 2021

Sensitive Natural Communities and Habitats

Regionally sensitive natural communities or habitat types are an important indicator of the existence of sensitive species. According to the CNDDDB and as described above, sensitive natural communities and habitats occur within the Planning Area, specifically within the Puente Hills Preserve (Exhibit 4.4-1 Biological Resources).

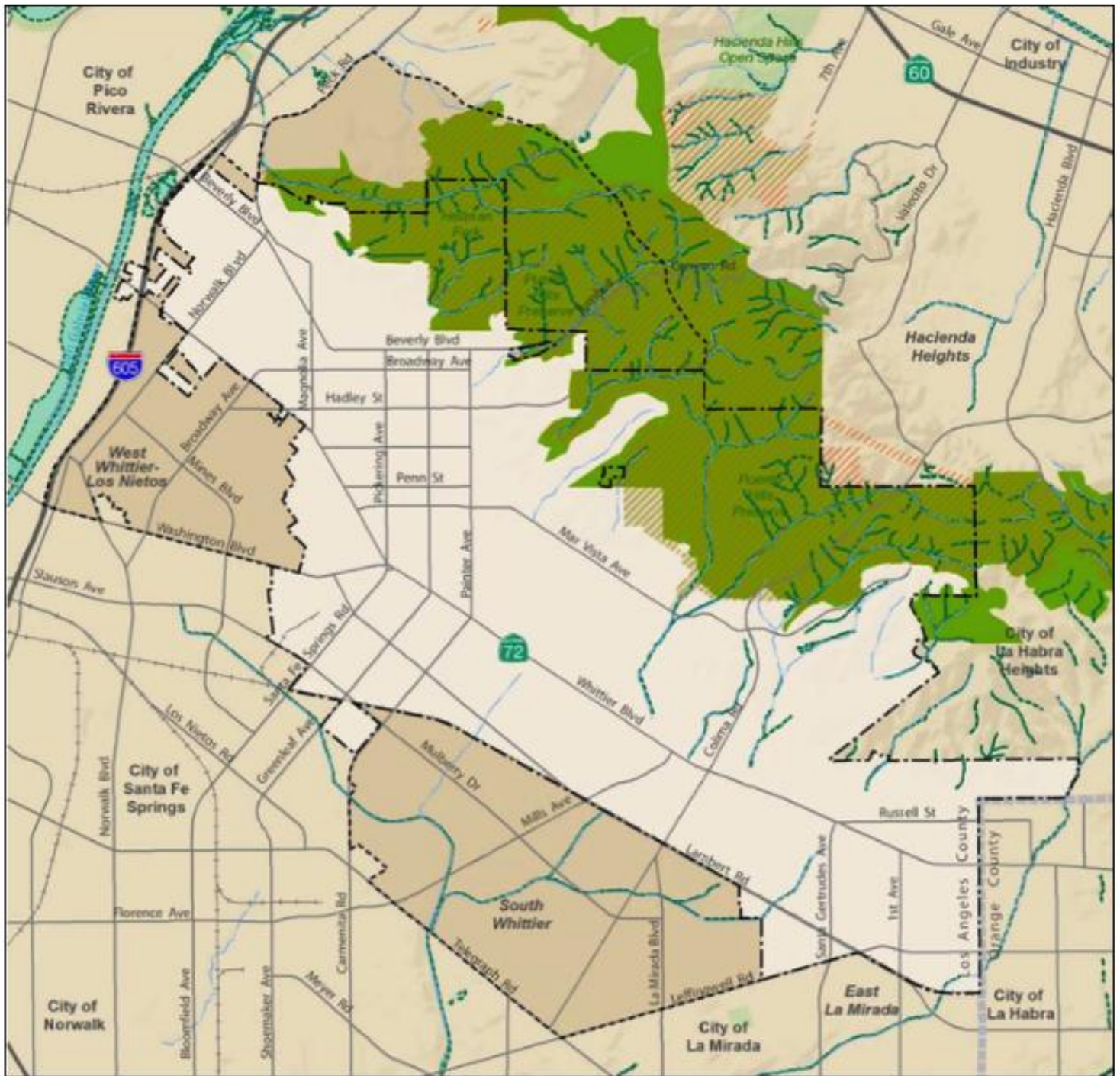
Vegetation Communities

The Puente Hills Preserve, managed by the Puente Hills Habitat Authority, provides vegetation complexity and habitat diversity within a relatively small area. These complex communities and diverse habitats result from the soils, slope, hydrology, and the climate that combine to create conditions highly suitable for diverse ecosystems. Additionally, several vegetation communities within the Puente Hills Preserve are unique to the southern California coast. They are considered globally sensitive and often support special status wildlife species that are threatened by urban development. In total, there are nine major vegetation community types within the Puente Hills Preserve and the overall Planning Area (Whittier, 2017).

Coastal Sage Scrub. Coastal sage scrub habitat is home to a variety of birds including the federally threatened coastal California gnatcatcher as well as rodents (mainly mice and the San Diego desert woodrat (SSC), mule deer, coyotes, and northern red-diamond rattlesnakes (SSC). Coastal sage scrub is located in or adjacent to the Puente Hills Preserve in the northeastern portion of the Planning area and is not found in urbanized areas in the southwestern portion of the Planning Area.

Chaparral. Chaparral is a transitional vegetation community between coastal sage scrub and woodland habitats. As a transitional community, wildlife habitats found here are similar to coastal sage scrub. Many of the same bird species found in coastal sage scrub are common in chaparral, but some bird species such as the coastal California gnatcatcher are rarely observed. Rodents and reptiles are common in this vegetation. Most larger wide-ranging mammals, such as the bobcat and gray fox, occur here as well. Chaparral is located exclusively in the Puente Hills Preserve in the northeastern portion of the Planning area and is not found in urbanized areas in the southwestern portion of the Planning Area. There are three areas of chaparral along the western boundary of the Puente Hills Preserve that are designated as critical gnatcatcher habitat by the federal government (see Exhibit 4.4-1).

Grassland. Grassland communities have become established following disturbances such as farming, grazing, and wildfire. Grassland vegetation's lack of structure and habitat diversity often results in fewer species compared to other communities. The most common grassland species include ripgut brome, slender wild oat, foxtail barely, red brome, soft chess, wild oat, perennial wild rye, and foxtail fescue. Rodent species make up much of the mammal population while snakes represent a majority of the reptile population. Foraging passerine birds (songbirds and perching birds) are common. Raptors are also common as they feed on rodents, birds, reptiles, and insects that are plentiful in grassland habitats. Amphibian species, like the Pacific chorus frog, can also be found here, as well as the western spadefoot (SSC). While most grasslands within the Planning Area are located in the Puente Hills Preserve, they are also present on undeveloped infill parcels in the urbanized portion of the Planning Area.



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Biological Resources

- Gnatcatcher Critical Habitat
- Significant Ecological Areas
- Wetlands Habitat



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Exhibit 4.4-1 Biological Resources
Whittier General Plan Update
 Whittier, California

4.4 – Biological Resources

Riparian. Riparian habitats are among the most diverse communities of plants and wildlife within the Puente Hills Preserve because of the abundance of moisture. Common shrub and tree species in the riparian areas of the Preserve include arroyo willow, western sycamore, and mulefat. Much of the riparian canopy is dominated by coast live oak. Beneath the oak canopy are Mexican elderberry, toyon, fuchsia-flowered gooseberry, California wild rose, holly-leaved redberry, and laurel. Riparian vegetation provides habitat for migrating and nesting songbirds, such as the yellow-breasted chat (SSC). Mammals, reptiles, and amphibians found in riparian areas prefer wetter habitats than what is present within the Planning Area. and include X. Riparian habitats are located exclusively in the Puente Hills Preserve in the northeastern portion of the Planning area and is not found in urbanized areas in the southwestern portion of the Planning Area.

Woodland. Woodland vegetation communities within the Puente Hills Preserve provide nesting and roosting habitat for a variety of bird species. Rodent and reptile species are far less common in this habitat compared to scrub and grassland communities. Nevertheless, certain species can still be found such as the brush mouse and western gray squirrel. This habitat is well suited for larger mammals and amphibians, specifically the mule deer and arboreal salamander. Woodland habitats are located exclusively in the Puente Hills Preserve in the northeastern portion of the Planning area and is not found in urbanized areas in the southwestern portion of the Planning Area.

Cliff and Rock. Vegetation is sparse on cliff and rock areas; however, some instances of coastal sage scrub species occur. Cliff and rock habitats are located exclusively in the Puente Hills Preserve in the northeastern portion of the Planning area and is not found in urbanized areas in the southwestern portion of the Planning Area.

Agriculture. Agricultural areas have been actively managed in the past but are no longer present in the Planning Area. Avocado orchards and vineyard remnants can be found scattered throughout the Puente Hills Preserve in the northeastern portion of the Planning area, but they are absent in urbanized areas in the southwestern portion of the Planning Area.

Developed or Disturbed. Develop or disturbed vegetation communities refer to areas that have been modified by human activity. Vegetation communities found here are dominated by non-native ornamental trees and shrubs. These habitats can sometimes mimic the structure of native woodlands and are used by nesting birds, migrating songbirds, and raptors. While there are small areas of the Puente Hills Preserve that are developed or disturbed, most of this vegetation community is found in the urbanized southeastern portion of the Planning Area. The majority of the Planning Area (approximately 71% or 8,891 acres) is dominated by residential/commercial/industrial/public facilities, institutional uses, planted ornamentals, and paved areas. Landscape ornamentals such as red gum (*Eucalyptus tereticornis*), blue gum (*Eucalyptus globulus*), sweet gum (*Liquidambar styraciflua*), and oleander (*Nerium oleander*) are common. Non-native herbs and grasses are present throughout the Planning Area in vacant parcels and include, African daisy (*Dimorphotheca sinuate*), rosemary (*Rosmarinus officinalis*), fountain grass (*Pennisetum setaceum*), prickly sow-thistle (*Sonchus asper*), wild radish (*Raphanus raphanistrum*), agapanthus (*Agapanthus africanus*), and English ivy (*Hedera helix*).

Open Space. The open space areas within the Planning Area (approximately 3,276 acres or 26.2%) are dominated by parks with landscaped ornamental vegetation. Vegetation in these areas consists primarily of non-native species such as, red ironbark (*Eucalyptus sideroxylon*), red gum (*Eucalyptus tereticornis*), blue gum (*Eucalyptus globulus*), Brazilian pepper (*Schinus terebinthifolius*), Peruvian pepper (*Schinus molle*), jacaranda (*Jacaranda mimosifolia*), queen palm (*Syagrus romanzoffiana*), tree of heaven (*Ailanthus altissima*), iceplant (*Carpobrotus*

edulis), acacia (*Acacia sp.*), bird of paradise (*Strelitzia reginae*), aloe (*Aloe sp.*), and castor bean (*Ricinus communis*).

Riparian/Wetland Habitats

Wetlands habitats maintain soils that are saturated with moisture for all or a portion of the year. Wetlands serve not only as nodes along avian and aquatic species migratory routes but also provide a unique habitat for a variety of local species. Wetlands and waters are regulated by federal, state, and local agencies, as described in section 4.4.2 below. The USFWS maintains the National Wetlands Inventory (NWI) and Wetlands Mapper System to identify the location of wetlands and riparian habitat. NWI maps are intended to provide general reference only and do not define the jurisdictional limits for any wetland regulatory program. Exhibit 4.4-2 (Wetlands and Riparian Habitat) shows the location of wetlands and riparian habitat in the far northern portion of the Planning Area. There are additional riparian and wetland resources adjacent to the City between the San Gabriel and Rio Hondo Rivers northeast of the City. Common shrub and tree species in the riparian areas of the Preserve include arroyo willow, western sycamore, coast live oak, and mulefat. Much of the canopy is composed of coast live oak. Beneath the oak canopy are Mexican elderberry, toyon, fuchsia-flowered gooseberry, California wild rose, holly-leaved redberry, and laurel. This vegetation provides habitat to several nesting sensitive species including the yellow-breasted chat, a California Species of Special Concern. The riparian is used by migrating songbirds as well. Mammals, reptiles, and amphibians found in riparian areas are species that prefer wetter habitats. Riparian habitat is located almost exclusively in the Puente Hills Preserve in the northeastern portion of the Planning area and is not found in the urbanized areas of the Planning Area.

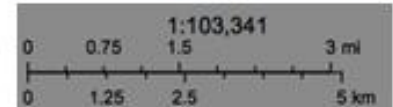
NOP Comments

A letter from the **California Department of Fish and Wildlife (CDFW)** was received on May 25, 2021 that provided historical information about CDFW and its role in the CEQA process. CDFW also outlined several issues they wanted addressed in the General Plan EIR regarding biological resources, including protecting open space areas, not reducing any important habitat areas, and to use specific databases to determine what listed or otherwise sensitive species of plants or animals could be present in the Planning Area. The following evaluates those issues as requested by the CDFW (see note below).



The CDFW also provided extensive comments about specific species or resources that need to be assessed as part of the EIR, however, it must be remembered this is a programmatic document and it clearly references the need for site specific biological studies when development is proposed in the future on specific sites. As outlined in CEQA, detailed assessments of any impacts to those resources identified by the CDFW will be evaluated at that time.

A letter from the **Puente Hills Habitat Preservation Authority (PHHPA)** was received on May 20, 2021 that provided historical information about the role of the PHHPA and several issues that should be addressed in the General Plan EIR regarding the Puente Hills and open space in the City. The PHHPA was especially concerned about protecting open space areas and not reducing any important habitat areas within the Puente Hills, the following sections evaluate those issues as requested by the PHHPA (see note below).

IMPORTANT NOTE: The mapping provided with the NOP appeared to show some open space or park parcels as having a potential for development. That was the result of a mapping error and City staff have stated there is absolutely no intent to convert or designate any existing open



Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland

-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond

-  Lake
-  Other
-  Riverine



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reflects the most current and accurate boundaries of the Puente Hills Preserve is accurate and the City has no intent to convert any existing preserve or parkland to developable land.

In addition, the Los Angeles County Fire Department referred the City to its County Oak Tree Ordinance.

4.4.2 – REGULATORY FRAMEWORK

Federal

Endangered Species Act (FESA) (1973)

FESA, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under FESA. FESA has the following four major components: (1) provisions for listing species, (2) requirements for consultation with the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA NMFS), (3) prohibitions against a "take" (defined as harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species, and (4) provisions for permits that allow incidental "take". FESA also discusses recovery plans and the designation of critical habitat for listed species. Section 7 requires Federal agencies, in consultation with, and with the assistance of the USFWS or NOAA NMFS, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. Both the USFWS and NOAA NMFS share the responsibility for administration of FESA.

Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations (CFR) Part 10

The MBTA prohibits taking, killing, possessing, transporting, and importing of migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term "take" is defined as, "to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires." With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that causes nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

The Clean Water Act Sections 404 and 401

The United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under section 404 of the Clean Water Act (CWA) (33 USC 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into three categories – territorial seas, tidal waters, and non-tidal waters – and is determined depending on which type of waters is present (Title 33 CFR Part 328.4(a), (b), (c)). Activities in waters of the United States regulated under section 404 include fill for development, water resource projects (e.g., dams and levees), infrastructure developments (e.g., highways, rail lines, and airports) and mining projects. Section 404 of the CWA requires a federal permit before dredged or fill material

may be discharged into waters of the United States, unless the activity is exempt from section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a water quality certification from the state in which the discharge originates. The discharge is required to comply with the applicable water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The EPA has delegated responsibility for the protection of water quality in California to State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB).

The National Pollutant Discharge Elimination System (NPDES)

This program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. These are considered point-sources from a regulatory standpoint. Generally, these permits are issued and monitored under the oversight of the SWRCB and administered by each regional water quality control board. Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the state’s General Permit for Dischargers of Storm Water Associated with Construction Activity. All dischargers are required to obtain coverage under the Construction General Permit. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs) with a monitoring program. The project will require coverage under the Construction General Permit.

State

California Endangered Species Act (CESA)(1984)

CESA expands on the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code (CFGC). To align with FESA, CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into CESA as threatened species but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The CDFW implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the CNDDDB, a computerized inventory of information on the general location and status of California’s rarest plants, animals, and natural communities. During the CEQA review process, the CDFW is given the opportunity to comment on the potential of the proposed Project to affect listed plants and animals.

Fully Protected Species and Species of Special Concern

The classification of “fully protected” was the CDFW’s initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The CFGC sections (fish at §5515, amphibian and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with “fully protected” species states that these species “...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species,” although take may be authorized for necessary scientific research. This language makes the “fully protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003, the code sections

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dealing with fully protected species were amended to allow the CDFW to authorize take resulting from recovery activities for state-listed species.

Species of special concern (SSC) are broadly defined as animals not listed under FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or historically occurred in low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by CDFW, land managers, consulting biologist, and others. It is intended to focus attention on these species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, as well as focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

California Fish and Game Code sections 3503 and 3513

According to section 3503 of the CFGC, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English sparrow (*Passer domesticus*) and European Starling (*Sturnus vulgaris*). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MBTA, prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a “take” by CDFW.

California Fish and Game Code Sections 1600-1603

Under section 1602 of CFGC, CDFW has authority over any proposed activity that may substantially modify a river, stream, or lake. CDFW requires notification for any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. The CDFW typically considers a river, stream, or lake to include its riparian vegetation, but it may also extend to its floodplain. The term “stream”, which includes creeks and rivers, is defined in the CCR as follows: “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life”. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. Riparian is defined as “on, or pertaining to, the banks of a stream”; therefore, riparian vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself”.

If the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) will be prepared, which includes reasonable conditions necessary to protect those resources. The applicant may then proceed with the activity in accordance with the final LSAA. Section 1602 does not extend to isolated wetlands and waters, such as small ponds not located on drainages.

Native Plant Protection Act (1977) (CFGF §§ 1900 through 1913)

The NPPA enacted the CDFW to carry out the Legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from “take.”

Sensitive Plants – California Native Plant Society

The California Native Plant Society (CNPS), a non-profit plant conservation organization, publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California. The Inventory assigns plants to the following categories:

- 1A Presumed extinct in California;
- 1B Rare, threatened, or endangered in California and elsewhere;
- 2 Rare, threatened, or endangered in California but more common elsewhere;
- 3 Plants for which more information is needed – A review list; and
- 4 Plants of limited distribution – A watch list.

Additional endangerment codes are assigned to each taxon as follows:

- .1 Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat).
- .2 Fairly endangered in California (20-80% occurrences threatened).
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that qualify for listing by CDFW and/or other state agencies (e.g., California Department of Forestry and Fire Protection). As part of the CEQA process, such species should be fully considered, as they meet the definition of threatened or endangered under the NPPA and Sections 2062 and 2067 of the CFGF. CRPR 3 and 4 species are considered to be plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFW recommend that these species be evaluated for consideration during the preparation of CEQA documents.

Sensitive Natural Communities

Sensitive natural communities are habitats that are either unique in constituent components, of relatively limited distribution in the region, or of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations, or by the CDFW or the USFWS. The CNDDDB identifies a number of natural communities as rare, which are given the highest inventory priority. Impacts to sensitive natural communities and habitats must be considered and evaluated under the CEQA (CCR: Title 14, Div. 6, Chap. 3, Appendix G)

Natural Community Conservation Planning Act

The Natural Community Conservation Planning (NCCP) program of the CDFW takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. The NCCP program, established pursuant to the 1991 NCCP Act (Fish and Game Code 2003) is broader in its orientation and objectives than CESA or FESA. While CESA and

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FESA are designed to identify and protect species that have already declined in significant numbers, the NCCP program seeks to prevent species listing by focusing on the long-term stability of wildlife and plant communities. There is no NCCP in or adjacent to the City of Whittier.

Section 401 of the Clean Water Act

RWQCB regulates activities in “waters of the state”, including wetlands, through section 401 of the CWA. “Waters of the state” are defined by the Porter-Cologne Water Quality Control Act (see below) as “any surface water or groundwater, including saline waters, within the boundaries of the state.” While the USACE administers permitting programs that authorize impacts to “waters of the US”, any USACE permit authorized for a project would be invalid unless the RWQCB has issued a project-specific water quality certification or waiver of water quality. A water quality certification requires a finding by the RWQCB that the activities permitted by the USACE will not violate water quality standards individually or cumulatively over the term of the issued USACE permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act (Porter-Cologne Act) (California Water Code section 13260) requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the “waters of the state” to file a report of discharge” with the RWQCB through an application for waste discharge. The RWQCB protects all waters in its regulatory scope but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs (e.g. section 404 of the CWA).

Local

City of Whittier General Plan

The City’s existing 1993 General Plan specifies the following goals and policies for the protection of biological resources:

Environmental Resource Management Element

Goal 1: Preserve or conserve natural and cultural resources that have scientific, educational, economic, aesthetic, social, and cultural value.

Policy 1.2: Encourage practices that stress soil conservation as a means to retain native vegetation, maximize water infiltration, provide slope stabilization, allow scenic enjoyment, and reduce flood hazards.

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: Work with appropriate agencies to rehabilitate the oil fields or encourage the rehabilitation of these lands within the planning area for open space, recreation, or other beneficial resource conservation uses after site reclamation.

Policy 1.5: Encourage property owners to preserve areas with native vegetation, wildlife habitat, and visual beauty.

Goal 3: Secure a safe, healthful, and wholesome environment through careful planning and preservation of open space resources.

Policy 3.1: Protect existing wildlife habitats through the preservation of open space.

Policy 3.2: Future hillside development will be permitted or approved only if it involves minimal adverse impacts on the environment and natural topography.

Policy 3.3: Participate with the County of Los Angeles, the Southern California Association of Governments, and other responsible agencies on all open space planning matters to the extent necessary to implement the City's General Plan policies regarding open space, housing production goals, and wildlife preservation within its sphere of influence.

Policy 3.4: Continue to enforce mitigation measures for projects which have the potential for significant and irreversible adverse environmental effects.

Policy 3.5: Work with other agencies and service organizations to identify potential strategies and funding sources for the acquisition of open space within the Puente Hills and other areas of the City and encourage flexibility in the planning of any development in the Puente Hills, to allow innovative planning designs that preserve open space and reduce potential environmental impacts.

Land Use Element

Goal 6: Encourage the retention and development of parkways, median strips, green belts, bike trails, and other open landscape areas, which provide scenic variety and aesthetic improvement.

Policy 6.1: Promote the retention and development of landscaped buffer zones along major thoroughfares, streets, and railroad lines.

Policy 6.2: Promote the maintenance and development of sidewalks and planted parkways along Whittier's streets and promote the planting and maintenance of parkway trees.

Policy 6.3: Promote the conversion of both active and abandoned railroad right-of-way to multi-use trails, greenbelts, and other recreation open space uses, where appropriate.

Policy 6.4: Promote the preservation of important ecological resources within the planning area through a variety of means, including setting aside areas for open space, trails, and recreational uses.

Transportation Element

Goal 6: Consider environmental and socio-economic impacts, along with the circulation benefits, of street extensions and widening projects.

Policy 6.1: Any future extension of roadways should be sensitive to existing wildlife and their habitats.

4.4.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the General Plan Update would have a significant impact related to biological resources if it would:

- a) 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;

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- b) 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 or US Fish and Wildlife Service;
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- d) 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;
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.4.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to biological resources which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

Special Status Species Protections

Impact BIO-1 – Would the GPU 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?

Analysis of Impacts

Some parts of the Planning Area provide suitable habitat for special-status plant and wildlife species including: western spadefoot, northern harrier, burrowing owl, yellow-breasted chat, coastal California gnatcatcher, San Diego woodrat, and red-diamond rattlesnake. Most of these species are supported by relatively undisturbed natural areas including coastal sage scrub, grassland, and riparian habitats. Within the Planning Area, natural areas are planned for preservation within the Puente Hills Preserve (PHP areas) and the Resource Management Element has goals and policies intended to enhance and protect these habitats.

2021 General Plan Update. The proposed 2021 General Plan Update contains the following goals and policies relative to the identification and protection of special status species and their supporting habitat:

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community's recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

RM-1.3: Control invasive and non-native vegetation in natural open space areas.

RM-1.4: Encourage preservation of continuous open space that promotes movement of wildlife, such that wildlife corridors are maintained and/or reestablished.

RM-1.5: Team with landowners and wildlife agencies to promote sustainable land use and reduce impacts to the environment and wildlife habitats.

RM-1.6: Collaborate with wildlife and conservation agencies to identify areas to target for conservation and preservation of native habitats, while allowing open space to be accessed for recreation, resource management, and public safety purposes.

RM-1.7: Continue collaborations with Los Angeles County and natural resource agencies for evaluating proposed developments in areas adjacent to and within sensitive habitats of Whittier, including the Puente Hills, with an aim to reduce impacts to ecosystem services and wildlife habitat.

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.2 Enhance the urban forest along street corridors, in parks, and on City-owned properties to provide soil stabilization and erosion reduction as well as reduce flood hazards.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.1: Select or identify appropriate trees for Whittier, focusing on native tree types and established tree types along corridors such as Beverly Boulevard.

RM-4.2: Increase the City’s tree canopy.

RM-4.3: Promote and encourage community involvement in urban ecology projects that preserve or expand neighborhood green space, create space for communities to gather, and connect people to nature.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar, and reflective roofs)

Goal 11: An urban forestry program that provides for shaded green spaces citywide, preserves long-established character of Whittier’s boulevards, and provides incentives for tree planting and preservation on private properties.

Policies

RM-11.1: Strengthen the City’s tree policies and ordinances.

RM-11.2: Maintain a street tree and planting plan that includes strategies for long-term planned replacement of specimen trees due to age or disease.

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RM-11.3: Use urban forestry strategies to manage heat island impacts.

RM-11.4: Communicate to the public the advantages of having a comprehensive urban forestry plan.

RM-11.5: Continue to implement a regular street tree maintenance program.

RM-11.6: Require tree planting for all new development projects with trees that are climate appropriate, add quality and character to a site, and forward the City's climate adaptation goals.

RM-11.7: Aim to protect mature trees and urban forests.

General Plan Analysis. Goal 1 and its policies specifically aim at protecting areas with important habitat and open spaces that support listed or otherwise sensitive species. Goals 4 and 11 and their policies encourage the addition of trees in public and private spaces which will provide additional habitat resources (i.e., trees and landscaping) to support wildlife.

Summary and Conclusions. These General Plan goals and policies help protect existing and encourage the addition of new habitat and resources to support listed or otherwise sensitive species. Therefore, impacts to biological resources including special status species from future development under the GPU are expected to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Sensitive Natural Communities

Impact BIO-2 – Would the GPU 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 or US Fish and Wildlife Service?

Analysis of Impacts

The Planning Area possesses riparian habitat and some sensitive communities within the Puente Hills Preserve areas, however, these areas are not proposed for changes under the GPU. The remainder of waterways are channelized within the urbanized area of Whittier, and no specific impacts are identified to these areas in the GPU.

The General Plan Resource Management Element has the following (summarized) goals and policies intended to protect riparian habitat and sensitive communities. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

2021 General Plan Update. The proposed 2021 General Plan Update contains the following goals and policies relative to the identification and protection of sensitive natural communities:

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community’s recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

RM-1.3: Control invasive and non-native vegetation in natural open space areas.

RM-1.4: Encourage preservation of continuous open space that promotes movement of wildlife, such that wildlife corridors are maintained and/or reestablished.

RM-1.5: Team with landowners and wildlife agencies to promote sustainable land use and reduce impacts to the environment and wildlife habitats.

RM-1.6: Collaborate with wildlife and conservation agencies to identify areas to target for conservation and preservation of native habitats, while allowing open space to be accessed for recreation, resource management, and public safety purposes.

RM-1.7: Continue collaborations with Los Angeles County and natural resource agencies for evaluating proposed developments in areas adjacent to and within sensitive habitats of Whittier, including the Puente Hills, with an aim to reduce impacts to ecosystem services and wildlife habitat.

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.2 Enhance the urban forest along street corridors, in parks, and on City-owned properties to provide soil stabilization and erosion reduction as well as reduce flood hazards.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.1: Select or identify appropriate trees for Whittier, focusing on native tree types and established tree types along corridors such as Beverly Boulevard.

RM-4.2: Increase the City’s tree canopy.

RM-4.3: Promote and encourage community involvement in urban ecology projects that preserve or expand neighborhood green space, create space for communities to gather, and connect people to nature.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar, and reflective roofs)

Goal 11: An urban forestry program that provides for shaded green spaces citywide, preserves long-established character of Whittier’s boulevards, and provides incentives for tree planting and preservation on private properties.

Policies

RM-11.1: Strengthen the City’s tree policies and ordinances.

RM-11.2: Maintain a street tree and planting plan that includes strategies for long-term planned replacement of specimen trees due to age or disease.

RM-11.3: Use urban forestry strategies to manage heat island impacts.

RM-11.4: Communicate to the public the advantages of having a comprehensive urban forestry plan.

RM-11.5: Continue to implement a regular street tree maintenance program.

RM-11.6: Require tree planting for all new development projects with trees that are climate appropriate, add quality and character to a site, and forward the City’s climate adaption goals.

RM-11.7: Aim to protect mature trees and urban forests.

General Plan Analysis. Goal 1 and its policies specifically aim at protecting areas with riparian and other important habitat and open spaces. Goals 4 and 11 and their policies encourage the addition of trees in public and private spaces which will provide additional habitat resources (i.e., trees and landscaping) to support wildlife.

Summary and Conclusions. These General Plan goals and policies help protect existing riparian and other habitat as well as encourage the addition of new habitat and resources. Therefore, impacts to biological resources including riparian habitat and sensitive communities from future development under the GPU are expected to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Wetland Conservation

Impact BIO-3 – Would the GPU have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Analysis of Impacts

The Planning Area possesses wetlands within the Puente Hills Preserve areas, however, these areas are not planned for changes under the plan. No state or federally protected wetlands are anticipated to occur within the urbanized areas of Whittier as water features are highly channelized in these areas. However, the General Plan Resource Management Element has the following (summarized) goals and policies intended to protect any wetland resources if present. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

2021 General Plan Update. The proposed 2021 General Plan Update contains the following goals and policies relative to the identification and protection of wetland resources:

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community’s recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

RM-1.3: Control invasive and non-native vegetation in natural open space areas.

General Plan Analysis. Goal 1 and its policies specifically aim at protecting areas with important habitat and open spaces including attendant drainages and water resources in the Puente Hills. The only major identified wetlands and related resources are just outside of the City to the north associated with the San Gabriel and Rio Hondo Rivers.

Summary and Conclusions. This General Plan goal and its policies help protect existing drainages and encourage the addition of new habitat and resources where possible. Therefore, impacts to biological resources including any wetland-related resources from future development under the GPU are expected to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Fish and Wildlife Movement

Impact BIO-4 – Would the GPU 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?

Analysis of Impacts

The GPU does not interfere substantially with the movement of any native resident or migratory fish or wildlife species, with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

2021 General Plan Update. The proposed 2021 General Plan Update contains the following goals and policies relative to the identification and protection of fish and wildlife movement:

Resource Management Element

4.4 – Biological Resources

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community's recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

General Plan Analysis. Goal 1 and its policies specifically aim at protecting areas with important habitat and open spaces including attendant drainages and water resources in the Puente Hills that support terrestrial wildlife movement. However, the only major identified wetlands and related resources that support fish are just outside of the City to the north - the San Gabriel and Rio Hondo Rivers.

Summary and Conclusions. This General Plan goal and its policies help protect existing drainages and habitat that encourages wildlife movement through non-urban areas where possible. Therefore, impacts to biological resources including fish species or wildlife movement from future development under the GPU are expected to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Conflicts with Local Biological Resources Plans

Impact BIO-5 – Would the GPU conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Analysis of Impacts

The GPU does not conflict with any local policies or ordinances protecting biological resources. The Resource Management Element of the GPU has goals and policies intended to enhance these natural habitats and protect biological resources. Further the GPU does not conflict with the City's Municipal Code or adopted Parkway Tree Manual, which both provide policies for the maintenance and protection of trees and require compliance with bird and wildlife protection laws.

2021 General Plan Update. The proposed 2021 General Plan Update contains the following goals and policies relative to the identification and protection of special status species and their supporting habitat:

Resource Management Element

Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species.

Policies

RM-1.1: Preserve open space areas with a diversity of habitats and plants native to Whittier while balancing the community’s recreational, scientific, economic, educational, and scenic needs.

RM-1.2: Promote native habitat preservation within the Puente Hills Preserve, including efforts to restore native vegetation damaged due to overuse or wildfire.

RM-1.3: Control invasive and non-native vegetation in natural open space areas.

RM-1.4: Encourage preservation of continuous open space that promotes movement of wildlife, such that wildlife corridors are maintained and/or reestablished.

RM-1.5: Team with landowners and wildlife agencies to promote sustainable land use and reduce impacts to the environment and wildlife habitats.

RM-1.6: Collaborate with wildlife and conservation agencies to identify areas to target for conservation and preservation of native habitats, while allowing open space to be accessed for recreation, resource management, and public safety purposes.

RM-1.7: Continue collaborations with Los Angeles County and natural resource agencies for evaluating proposed developments in areas adjacent to and within sensitive habitats of Whittier, including the Puente Hills, with an aim to reduce impacts to ecosystem services and wildlife habitat.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.1: Select or identify appropriate trees for Whittier, focusing on native tree types and established tree types along corridors such as Beverly Boulevard.

RM-4.2: Increase the City’s tree canopy.

RM-4.3: Promote and encourage community involvement in urban ecology projects that preserve or expand neighborhood green space, create space for communities to gather, and connect people to nature.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar, and reflective roofs)

Goal 11: An urban forestry program that provides for shaded green spaces citywide, preserves long-established character of Whittier’s boulevards, and provides incentives for tree planting and preservation on private properties.

Policies

RM-11.1: Strengthen the City’s tree policies and ordinances.

RM-11.2: Maintain a street tree and planting plan that includes strategies for long-term planned replacement of specimen trees due to age or disease.

RM-11.3: Use urban forestry strategies to manage heat island impacts.

RM-11.4: Communicate to the public the advantages of having a comprehensive urban forestry plan.

RM-11.5: Continue to implement a regular street tree maintenance program.

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RM-11.6: Require tree planting for all new development projects with trees that are climate appropriate, add quality and character to a site, and forward the City’s climate adaption goals.

RM-11.7: Aim to protect mature trees and urban forests.

General Plan Analysis. Goal 1 and its policies specifically aim at protecting biological resources, while Goals 4 and 11 and their policies encourage the addition of trees in public and private spaces which will provide additional habitat to support biological resources (i.e., trees and landscaping).

Summary and Conclusions. These General Plan goals and policies help protect existing biological resources as well as encourage the addition of new habitat and resources. No impacts are expected to biological resources protected under local biological resource plans, policies, or ordinances.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Habitat Conservation Plans

Impact BIO-6 – Would the GPU conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Analysis of Impacts

There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans within or that affect the Planning Area. Because of this, the Resource Management Element does not contain any goals or policies that address these types of plans. The City of Whittier intends to comply with the Puente Hills Preserve Management Plan (LSA 2007) in areas owned and/or managed by the Habitat Conservation Authority wherever applicable. Further, no Significant Ecological Areas of Los Angeles County (LACDRP 2019) within the Puente Hills Preserve will be impacted by the GPU. Therefore, the GPU would not result in any conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Cumulative Impacts

Impact BIO-7 – Would the GPU cause substantial adverse cumulative impacts with respect to Biological Resources?

Analysis of Impacts

The GPU will not contribute to substantial adverse cumulative impacts to biological resources, as the GPU is primarily in a developed urban area and natural areas are not targeted for development but instead for preservation. The General Plan Resource Management Element has goals 1, 4, and 11 and their attendant policies above which are intended to prevent any cumulative impacts to regional biological resources. Therefore, cumulative impacts to biological resources from future development under the GPU are expected to be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.4.5 REFERENCES

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4.5 – Cultural Resources

This EIR chapter addresses potential impacts to archaeological and historic resources associated with implementation of the General Plan Update (GPU). The chapter will evaluate whether the GPU will cause a substantial adverse change in the significance of a historic resource, destroy a unique archaeological resource, or disturb human remains.

4.5.1 – ENVIRONMENTAL SETTING

The Planning Area is nestled against the Puente Hills to the northeast and the San Gabriel River to the west. Prior to European contact, this region was occupied by Native Americans referred to as the Gabrieleño Indians. The Puente Hills are known to contain archaeological resources that pre-date Spanish and Mexican land grants prior to California becoming the 31st state in 1850.

Historic Beginnings

The Mission Era and Land Grant period (circa 1771) in California saw the establishment of the San Gabriel Mission at the intersection of the San Gabriel River and present-day San Gabriel Boulevard, which included the south slope of the Puente Hills (portions of present-day Whittier). Manuel Nieto, a soldier in the King of Spain's army, was gifted 145,000 acres of land in Southern California, including the land south of the hills; after Nieto's death in 1804, his land was purchased, but quickly lost to foreclosure. Following the Mexican acquisition of California, part of this land was granted to Juan C. Perez as Rancho Paso de Bartolo in 1835. However, the United States Land Commission significantly reduced this land grant, excluding much of current-day Whittier. According to a U.S. Government survey, most of the land on the south slope of the Puente Hills was public land. Under American rule, western expansion quickened with the Homestead Act of 1862. German immigrants, and the later establishment of a Quaker Colony, resulted in the establishment of the Town of Whittier.

The founding of the Quaker-associated Whittier College in 1887, and the Whittier State Reform School in 1891, further shaped the town's growth. A commercial center along the bustling Philadelphia Street was in place by the 1920s. This older commercial center consisted of mostly wood-framed, one-, two-, and three-story buildings housing grocers, clothing and shoe stores, real estate offices, restaurants, and services such as pharmacies and barber shops. Growth subsequently radiated out into the hills, with single-family residences occupying large lots, and another commercial center developed along Whittier Boulevard in the 1950s.

Historic resources in the Planning Area include a variety of built resources dating to early Quaker settlement through to post-World War II modernism. The Planning Area contains several registered historic resources as well as civic/institutional and commercial landmarks that provide a source of community pride and enhance the social, cultural, and economic makeup of the community. As shown in Exhibit 4.5-1 (Historic Landmarks) below, there are a total of 109 resources registered in the Local Official Register of Historic Resources, seven resources registered in the California Register of Historic Resources, and five resources registered in the National Register of Historic Places (Whittier, 2018). Civic and institutional "local" landmarks within the Planning Area include City Hall, Central Library, Community Center, Community Theatre, Senior Center, Transit Depot, Whittier College, and the Former Fred C. Nelles Youth Correctional Facility.

The Planning Area also contains Pío Pico State Historic Park, which is the site of El Ranchito, also known as the Pío Pico Adobe or Pío Pico Mansion, the final home of Pío Pico, the last Governor of Alta California under Mexican rule and a pivotal figure in early California history. In addition, the Planning Area contains 36 properties under Mills Act Contracts and four designated historic districts- the Hadley-Greenleaf Historic District, the Central Park Historic District, the College Hills Historic District, and the Earlham Historic District (Whittier, 2017). Exhibit 4.5-2 (Historic Districts) shows the location of the four historic districts in the Planning Area.

Archaeological Resources

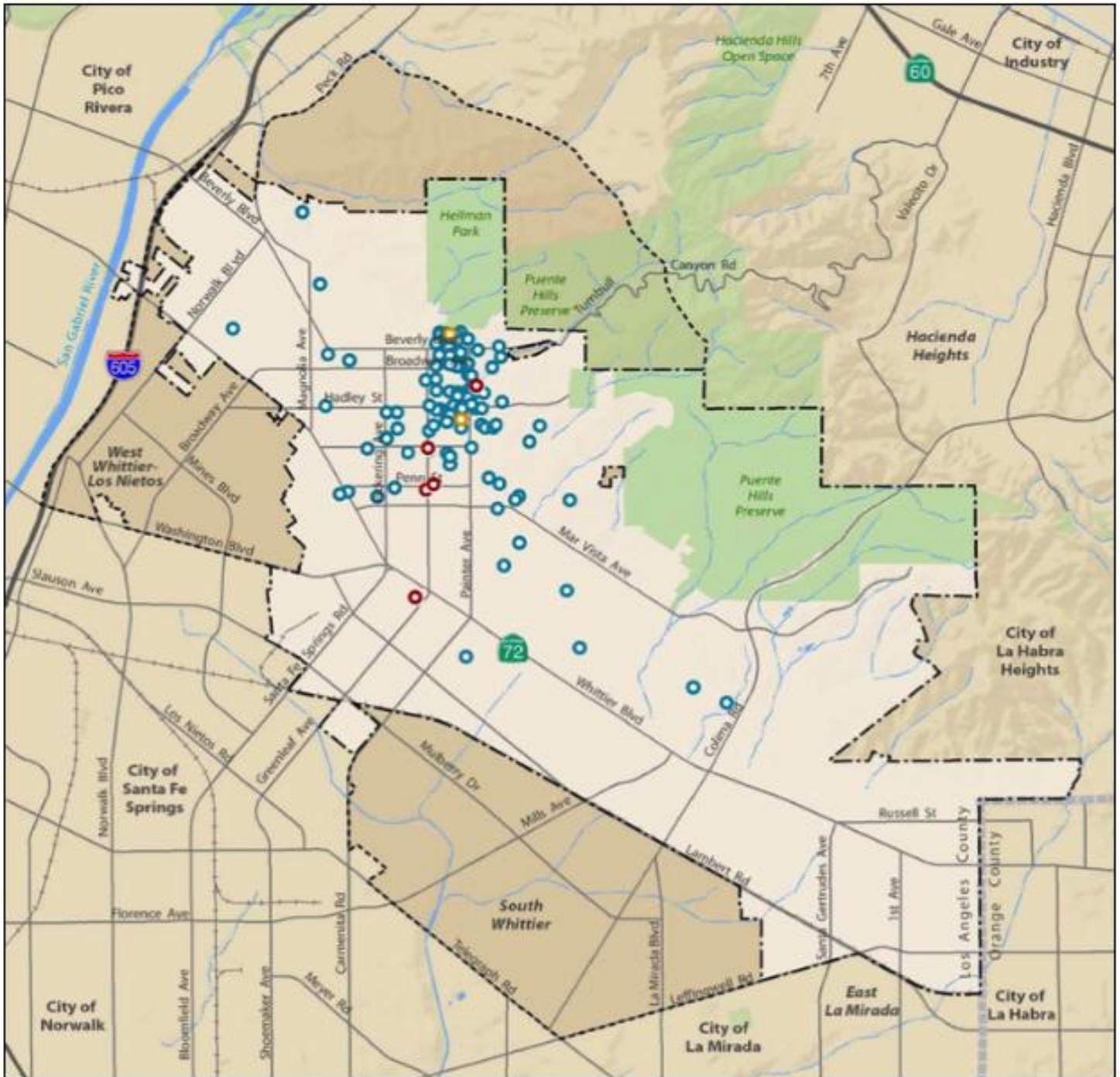
Prior to western settlement, areas within present day Whittier were occupied by Native Americans, specifically the Gabrieleño Indians (Whittier, 2017). The name Gabrieleño was applied because of their association with Mission San Gabriel, which was founded in 1771. The Gabrieleño are considered one of the most distinctive tribes in all of California, occupying an area that was bordered by Topanga and Malibu, the San Fernando Valley, the greater Los Angeles Basin, the coastal strip down to Aliso Creek south of San Juan Capistrano, and the islands of Catalina, San Nicolas and San Clemente. They are credited with an extensive and elaborate material culture, their expert craftsmanship in quarrying and manufacturing soapstone, and constructing the plank canoe. Based on research in the Ballona Creek area of the Los Angeles Basin, the La Brea Tar Pits, and Malaga Cove, the general area was occupied for over 20,000 years. The Puente Hills are known to have archaeological resources that pre-date Spanish and Mexican land grants. These resources date back thousands of years and are reflective of Native American settlement patterns. Given the long history of Native American settlement in the region, followed by Spanish and Mexican rule, there is a high probability of finding prehistoric (archaeological) resources in the Planning Area.

NOP Comments

The Native American Heritage Commission recommended consultation with California Native American Tribes, consistent with AB 52 and SB 18. It should be noted the City is completing consultation with local tribes at this time.

In addition, the City's Historic Resources Commission and the community organization known as the Whittier Conservancy submitted letters regarding the content of, and process used to develop, the proposed Historic Resources Element of the General Plan Update.

The Los Angeles County Fire Department also commented that fire events could harm archeological and cultural resources.



Historic Landmarks

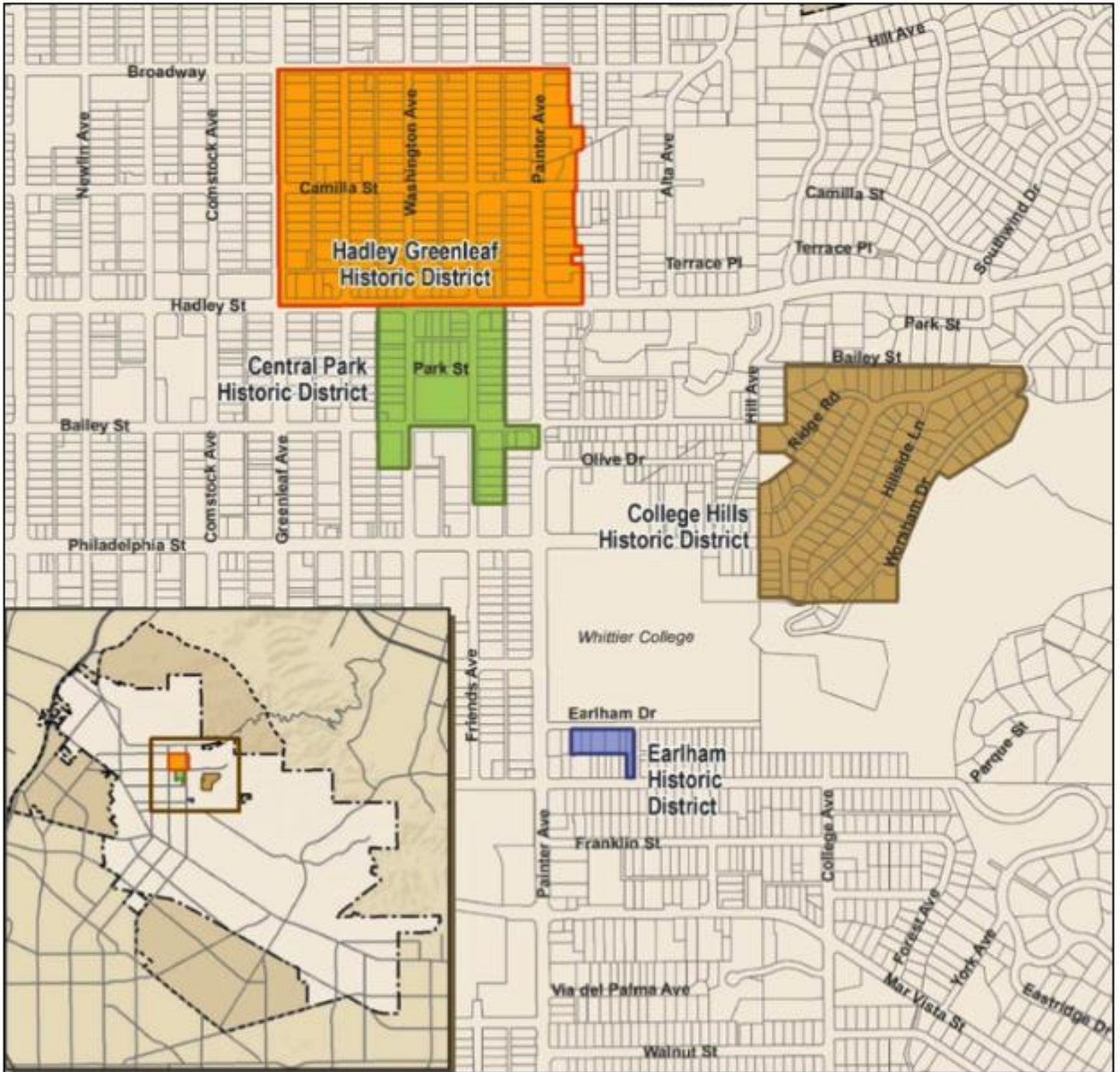
- National Register of Historic Places (5)
- California Register of Historic Resources (7)
- Local Official Register of Historic Resources (109)

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas



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Historic Districts

- Central Park Historic District
- College Hills Historic District
- Earlham Historic District
- Hadley Greenleaf Historic District



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4.5.2 – REGULATORY FRAMEWORK

Federal

National Historic Preservation Act of 1966

Enacted in 1966, the National Historic Preservation Act (NHPA) (16 U.S.C §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation’s policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings.

Section 106 of the Federal Guidelines

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B: It is associated with the lives of persons who are significant in our past.

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are

not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act (NAGPRA) of 1990

The NAGPRA of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation

State

California Environmental Quality Act (CEQA)

CEQA provides criteria to evaluate whether a building, structure, object, or site is significant. Under CEQA Guideline §15064.5(a), historic resources include the following those meeting the criteria listed below.

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.)

(2) A resource included in a local register of historical resources, as defined in §5020.1(K) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of §5024.1 (g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, providing the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historic Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to §5020.1(k) of the Public Resources Code), or identified in an historical resources

survey (meeting the criteria in §5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code §5020.1(j) or 5024.1. In accordance with CEQA, properties designated or eligible at all levels are deserving of protection by a lead agency when any undertaking proposes to demolish or alter any such property.

Typically to be considered an historic resource under CEQA, the structure in question must at least be considered eligible for local listing. However, in some cases a structure may be considered ineligible such as after detailed historic or architectural assessment, and thus would no longer be considered an historic resource under CEQA.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is “an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate properties that are to be protected, to the extent prudent and feasible, from substantial adverse change (CA Public Resources Code).” Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (Public Resources Code):

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Historical Landmarks (CHLs)

CHLs are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County

4.5 – Cultural Resources

Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California); or
- Associated with an individual or group having a profound influence on the history of California. A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Point or Points) designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a state policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner. Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the federal NAGPRA. Intended to “provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect,” the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The act also provides a process for non–federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Senate Bill (SB) 18

California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission’s SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

Assembly Bill (AB) 52

Specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to CEQA projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code, Section 622.5

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Local

City of Whittier General Plan

The Land Use Element of the City's existing 1993 General Plan specifies the following goals and policies for the community's historic buildings and features:

Goal 1.0: Establish an orderly, functional, and compatible pattern of land uses to guide the future growth and development of Whittier and its sphere of influence, in order to provide a high quality of life for the people.

Policy 1.6: Promote adaptive re-use of historic structures, where appropriate.

In addition, the Environmental Resource Management Element of the City's existing 1993 General Plan specifies the following goals and policies for the community's historic buildings and features:

Goal 1.0: Determine the nature and extent of Whittier's physical and cultural heritage.

Policy 1.2: Require investigations for new development during the environmental review to evaluate the potential for archaeological and paleontological resources.

Policy 1.6: Promote adaptive re-use of historic structures, where appropriate.

Issue: Historic Preservation

Goal 2.0: Develop an historic resources preservation program, recognizing that effective utilization of the City's historic resources supports community identity and appeal, social and economic vitality, and neighborhood stability.

Policy 2.3: Encourage new development near historic structures, sites or districts to be compatible with the existing significant structures in scale, material, and character.

Policy 2.4: Encourage the preservation of open areas around historic buildings.

City of Whittier Municipal Code

Chapter 18.84 (Historic Resources) of the City's Municipal Code states that: The purpose of this ordinance is to promote the public health, safety, and general welfare through the following measures: (a) Safeguard the heritage of the city by protecting resources that reflect its cultural, historical and architectural legacy; (b) Promote public understanding, appreciation and involvement in the unique heritage of the City; (c) Foster civic pride in the beauty and notable accomplishments of the past; (d) Protect and enhance the city's attractions to residents and visitors and to support and stimulate business and industry; (e) Enhance the visual and aesthetic character of the City; (f) Promote the use of historic resources; and (g) Protect and safeguard the property rights of the owners whose property is declared to be a historic resource. To this end, the code includes criteria for determining resource value, and specifies expectations for maintenance and renovations. In addition to referencing the State Historic Building Codes, Section 18.84.460 of the Code, Historic Preservation Guidelines, provides specific guidelines for various activities which might be undertaken at a historic building.

"Chapter 18.84.460 Historic Preservation Guidelines" of the Municipal Code details how an historic building registered on the local, state, or federal historic register should be rehabilitated.

The “Historic Preservation Guidelines” details how one might make an addition within the existing structure, add new construction, or rehabilitate an historic property in accordance with the Secretary of the Interior’s Standards for Rehabilitation of Historic Buildings. The Historic Preservation Guidelines include an illustrated style guide with descriptions of features and rehabilitation instructions for the “Craftsman Style Home,” “Victorian Style Home,” “Spanish/Mediterranean Revival Style Home,” “Half-Timbered Tudor-Style House,” and the “California Bungalow Style Home.” There are more specific neighborhood design guidelines for both the Central Park Historic District and the Hadley/Greenleaf Historic District. See Chapter 18.87 and 18.88 of the Whittier Municipal Code for specific guidelines for the Central Park Historic District and for the Hadley/Greenleaf Historic District.

4.5.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the General Plan Update would have a significant impact related to historic, cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historic resource as defined by CEQA Guidelines Section 15064.5;
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;
- c) Disturb any human remains, including those interred outside of dedicated cemeteries?

4.5.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to historic resources, archaeological resources, and human remains which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

Historic Resources

Impact CUL-1 – Would the GPU cause a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5?

Analysis of Impacts

As described in Section 4.5.1, the City contains a total of 109 resources registered in the Local Official Register of Historic Resources, seven resources registered in the California Register of Historic Resources, and five resources registered in the National Register of Historic Places. In addition, the Planning Area contains dozens of civic and institutional landmarks as well as many commercial landmarks and four designated historic districts: the Hadley-Greenleaf Historic District; the Central Park Historic District; the College Hills Historic District; and the Earlham Historic District. The civic, institutional, and commercial landmarks as well as the historic districts are concentrated in the City’s downtown area while the residential properties are distributed throughout the City.

The Planning Area has a long-established history of settlement and contains many historic resources. Future development under the GPU may result in adverse impacts or removal of historic buildings or resources, especially in the downtown portions of the City. The Conservation Element of the current General Plan contains Goal 1.0 and its Policy 1.6 as well as Goal 2.0 and its Policies 2.3 and 2.4 which support the preservation or rehabilitation/restoration of identified historic resources and provide for the protection of such resources. In addition, the City’s existing Municipal Code contains Historic Preservation Guidelines which implement these goals and policies.

2021 General Plan Update. The Historical Resources Element of the proposed GPU contains the following goals and policies which will continue to identify, preserve, and protect the City's historic resources:

Goal 1: Historic Resources Identification: Identify historic, cultural, and archaeological resources.

Policies

HR-1.1: Evaluate potential historic resources and evaluate/provide required contextual statements for additional residential and commercial historic districts, as requested by the City Council and/or individual property owner(s).

HR-1.2: Consider documenting Whittier's post World War II residential neighborhoods. View Whittier's post-World War II neighborhoods holistically rather than building by building to gain an understanding of how they developed and what the context of their design and development means within the history of Whittier's residential enclaves.

HR-1.3: Evaluate the Uptown District to determine its appropriateness as a potential historic district.

HR-1.4: Ensure each of the four already-designated historic districts clearly identifies contributing and non-contributing resources within defined boundaries.

Goal 2: Update the City's Historic Preservation Program to align with best practices.

Policies

HR-2.1: Enhance, restore, preserve, and protect, as appropriate, historic resources throughout Whittier.

HR-2.2: Encourage the retention and/or adaptive reuse of historic residential, commercial, and industrial buildings.

HR-2.3: Consider relocation of structures with officially designated landmark status to vacant sites within established districts when no other alternative exists for their preservation, or if a particular structure is not protected by ordinance.

HR-2.4: Provide guidance to the owners of designated historic landmark sites to preserve and rehabilitate structures.

HR-2.5: Align the Historic Preservation Program with the California Environmental Quality Act (CEQA).

HR-2.6: Encourage cooperation and collaboration between City departments, commissions, boards, and community groups to respect designated historic resources when proposing, reviewing, and approving new or infill development.

Goal 3: Protect historic and cultural resources from demolition, destruction, or inappropriate actions or consequences.

Policies

HR-3.1: Consider the impact of climate change on historic and cultural resources and act to take preventative measures.

HR-3.2: Suspend development activity when archaeological and/or paleontological resources are discovered during construction.

HR-3.3: Encourage compatible new development of and near buildings, structures, sites, districts, and landscapes with historic designations to ensure limited physical and visual impact to existing historic resources and within older neighborhoods.

HR-3.4: Suggest Accessory Dwelling Units (ADUs) takes into consideration the character and features of the neighborhood in which it will be placed.

HR-3.5: Strive to have historic resource evaluations consider the neighborhood context and potential for a larger historic district, rather than just evaluate singular resources.

HR-3.6: Consider how landscapes may affect historic buildings.

HR-3.7: Balance public safety and insurance issues, consider encouraging the retention of mature landscaping and built landscape features as these elements contribute to the overall character of Whittier's older residential neighborhoods.

Goal 4: Promote the Whittier's historical and cultural resources (including adaptively reused structures) in a manner that contributes to the Whittier's overall economic development.

Policies

HR-4.1: Understand heritage tourism has strong economic impacts to local businesses and institute a focused locally inspired promotional program in partnership with organizations such as the Chamber of Commerce and local civic clubs and organizations.

HR-4.2: Understand the Pio Pico State Historic Park's contribution to Whittier's heritage and heritage tourism.

HR-4.3: Promote public awareness of Whittier's history, diverse heritage, and cultural influences.

Goal 5: Promote historic, cultural, and archaeological resources as a source of community identity and pride.

Policies

HR-5.1: Encourage public knowledge, understanding, and appreciation of Whittier's role in local and regional history.

HR-5.2: Foster civic and neighborhood pride and a sense of identity based on the recognition and use of historical and cultural resources.

General Plan Analysis. These goals and their policies will help protect existing historical resources within Whittier as well as investigate potential new resources that should be classified as historical. In addition, Policy 1.4 encourages additional research on the existing four historic districts to clearly identify contributing and non-contributing resources within defined boundaries. These goals and their policies are supported by the City Municipal Code with its specific criteria for determining local historic resources and landmarks.

Summary and Conclusions. With implementation of the General Plan goals and policies, as well as the existing preservation guidelines in the municipal code, potential impacts to historic resources by future development within the Planning Area will be less than significant.

Level of Significance Before Mitigation

4.5 – Cultural Resources

Less than significant.

Mitigation Measures

None required.

Archaeological Resources

Impact CUL-2 – Would the GPU cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Analysis of Impacts

Prior to European contact, the Planning Area was inhabited by the Gabrieleño Indian Tribe for many thousands of years. Development began in the Whittier area in the late 1800's but the Puente Hills are known to contain archaeological resources that pre-date Spanish and Mexican land grants. Therefore, future development in the Planning Area, especially on vacant land in the Puente Hills, has a high probability of uncovering prehistoric (archaeological) resources.

The Conservation Element of the current General Plan contains Goal 1.0 and its Policy 1.2 which encourage investigation for archaeological/Native American resources.

2021 General Plan Update. The Historical Resources Element of the proposed GPU contains the following goal and policies which will continue to identify, preserve, and protect archaeological resources within the Planning Area:

Goal 1: Historic Resources Identification: Identify historic, cultural, and archaeological resources.

HR-1.5: Identify and map areas of archaeological resources sensitivity.

HR-1.6: Understand that areas located along the San Gabriel River and in the Puente Hills have high potential for archaeological resources.

General Plan Analysis. This goal and its policies encourage careful consideration of archaeological and tribal resources which may be present within the Planning Area. In addition, the City's established development review procedures requires an assessment of archaeological resources for new development, especially in previously undisturbed areas such as the Puente Hills. The development review process also requires compliance with the established Native American consultation procedures of SB 18 and AB 52 (see Section 4.5.2).

Summary and Conclusions. With implementation of the General Plan goals and policies, as well as the City's established development review and Native American consultation processes, potential impacts to archaeological resources by future development will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Human Remains

Impact CUL-3 – Would the GPU disturb any human remains, including those interred outside of formal cemeteries?

Analysis of Impacts

The only large established cemetery in the immediate area is the Rose Hills Memorial Park and Mortuary, located just north of the City adjacent to the Puente Hills. However, Native Americans have occupied this region for thousands of years, and the Planning Area has been developed by European settlers since the late 1800's. Therefore, it is possible that human remains could be discovered during excavation for development, especially on previously undisturbed land in or near the Puente Hills.

Section 7050.5 of the California Health and Safety Code (CHSC) requires that, if human remains (or remains that may be human) are discovered on a project site during grading or earthmoving, the construction contractors, project archaeologist, and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The project proponent must then immediately inform the County Coroner and the City of the find. The coroner is permitted to examine the remains under CHSC Section 7050.5(b) to determine if the remains are those of a Native American. If human remains are determined as those of Native American origin, the applicant must comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the Native American Heritage Commission (NAHC) as outlined in Public Resources Code Section (PRC) 5097. The coroner then contacts the NAHC to determine the Most Likely Descendant (MLD) who will conduct an inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains is to be overseen by the MLD to determine the most appropriate means of treating the human remains and any associated grave artifacts, in consultation with the property owner and the lead agency (in this case the City of Whittier). CEQA requires the City and any project developer, including the City if it is a public works project, to comply with the CHSC Section 7050.5 and PRC 5097 if human remains are found during excavation.

General Plan Analysis. This goal and its policies encourage careful consideration of tribal resources, including Native American human remains, which may be present within the Planning Area. In addition, the City's established development review procedures requires an assessment of archaeological resources for new development, especially in previously undisturbed areas such as the Puente Hills. The development review process also requires compliance with the established Native American consultation procedures of SB 18 and AB 52 (see Section 4.5.2). The City must also comply with existing state regulations (CHSC Section 7050.5 and PRC 5097) with respect to disturbing human remains, including those interred outside of a formal cemetery.

Summary and Conclusions. With implementation of the General Plan goals and policies, as well as the City's established development review, Native American consultation processes, and state law regarding human remains, potential impacts related to human remains would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact CUL-4 – Would the GPU cause substantial adverse cumulative impacts with respect to cultural resources?

Analysis of Impacts

The Planning Area and surrounding area have been occupied by Native Americans for thousands of years, and the region has been inhabited by European settlers since the 1800's. The City of Whittier alone contains dozens of historical landmarks and resources, and the surrounding jurisdictions (i.e., cities of La Habra, La Mirada, Santa Fe Springs, Norwalk, La Habra Heights, and the unincorporated communities of Hacienda Heights and West Whittier-Los Nietos) also contain archaeological and historical resources.

2021 General Plan Update. The Historical Resources Element of the proposed GPU contains Goals 1 through 5 and their attendant policies which will continue to identify, preserve, and protect archaeological resources within the Planning Area. Consistent with federal and state laws, the General Plans of the surrounding jurisdictions have similar goals and policies to protect cultural resources within their boundaries as well. Finally, state law requires the City and surrounding jurisdictions to notify Native American representatives if tribal human remains are found.

In these ways, potential cumulative impacts to cultural resources will be addressed, and future development in the City of Whittier under the GPU will not make a significant contribution to any cumulative regional impacts on cultural resources.

Level of Significance Before Mitigation

Less Than Significant.

Mitigation Measures

None required.

4.5.5 References

California Health and Safety Code, Section 7050.5.

California Public Resources Code Section 5097.

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

4.6 – Energy

This section addresses energy impacts associated with implementation of the proposed Whittier General Plan Update (GPU). Energy resources are closely tied to impacts discussed in the Air Quality (Section 4.3) and Greenhouse Gas (Section 4.9) analyses in this EIR. As such, many of the values presented in this Section reflect values derived from the emissions modeling conducted for the GPU. Refer to Appendix D for detailed air quality and greenhouse gas (GHG) emissions estimates and information on energy usage (MIG, 2021).

4.6.1 – ENVIRONMENTAL SETTING

Energy is primarily categorized into three areas: electricity, natural gas, and fuels used for transportation. According to the U.S. Energy Information Administration (USEIA), California is the most populous state in the U.S., representing 12 percent of the total national population, has the largest economy, and is second only to Texas in total energy consumption. However, California has one of the lowest per capita energy consumption levels in the U.S. This is a result of California's mild climate, extensive efforts to increase energy efficiency, and implementation of alternative technologies. California leads the nation in electricity generation from solar, geothermal, and biomass resources (USEIA, 2021a).

Electricity

In 2019, the California electric system generated 277,704 gigawatt-hours (GWh) of electricity. Approximately 72 percent of this generation occurred in-state (200,475 GWh), while approximately 28% was imported to the California system but generated outside the state (77,229 GWh). Non-carbon dioxide emitting electric generation sources (nuclear, large hydroelectric, and renewables like solar and wind) produced 57% of the total system electricity generation in 2018 (CEC, 2021). In 2019, Los Angeles County consumed approximately 66,119 GWh of electricity, about 24% of the state's total electricity generated that year (CEC, 2021a).

Southern California Edison (SCE) is the utility provider in Whittier. In the 2017 fiscal year, SCE sold approximately 85,399 GWh of electricity (SCE, 2020a); approximately 48% of the electricity that SCE delivered to customers came from carbon-free resources, including solar energy (approximately 16%, wind energy (approximately 11%), and geothermal energy (approximately 6%) (SCE, 2020b).

Based on the CalEEMod emissions estimates prepared for the GPU (see Section 4.3.1 and Appendix D), the existing development in the Planning Area is estimated to consume approximately 481 GWh of electricity per year. Based on a service population (SP) of 174,866, the City's per capita energy consumption in 2019 was 2,750 kilowatt-hours (KWh) per year per service population (KWh/yr/SP).

Natural Gas

California accounts for less than one percent of total U.S. natural gas reserves and production; however, almost two-thirds of California households use natural gas for home heating (USEIA 2021a). In 2019, California consumed about 13,158 million therms of natural gas.¹ Los Angeles County consumed approximately 3,048 million therms of natural gas in the same year, accounting for approximately 23% of statewide consumption (CEC, 2021).

¹ One therm is equal to approximately 100,000 British thermal units (BTUs) or 0.1 million BTUs (MMBTU).

4.6 – Energy

The Southern California Gas Company (SoCalGas) provides natural gas service to the Whittier area. SoCalGas is the principal distributor of natural gas in Southern California and provides natural gas for residential, commercial, and industrial markets. The annual natural gas sale to all markets in 2019 was approximately 7,498 million therms (CEC, 2021).

Based on the CalEEMod emissions estimates prepared for the GPU (see Section 4.3.1 and Appendix D), existing development in the Planning Area is estimated to consume approximately 14.5 million therms per year (or approximately 1,446,350 MMBTUs). Based on a service population of 174,866 this works out to approximately 83 therms/yr/SP (or approximately 8.3 MMBTUs/yr/SP).

Transportation

California's transportation sector consumed approximately 80.3 MMBTUs of energy per capita in 2018, which ranked 30th in the nation (USEIA, 2021b). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by CARB.

According to the Board of Equalization, statewide taxable sales figures indicate a total of 15,365 million gallons of gasoline and 3,086 million gallons of diesel fuel were sold in 2019 (CEC, 2021). Although exact estimates are not available by County, retail fuel outlet survey data indicates Los Angeles County accounted for approximately 23% and 16% of total statewide gasoline and diesel sales, respectively, in 2019 (CEC, 2020).

Using trip generation rates and vehicle miles traveled (VMT) estimates contained in the Traffic Impact Analysis (TIA) prepared for the GPU, the existing land uses in the Planning Area are estimated to generate approximately 1,991,622,809 VMT per year.

4.6.2 – REGULATORY FRAMEWORK

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

Energy Independence and Security Act (EISA) of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles, the act also includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)
- Appliance and lighting efficiency standards
- Building energy efficiency

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum. The U.S. EPA is responsible for developing and implementing regulations to ensure transportation fuel sold in the United State contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of our nation’s renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the U.S. EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces (U.S. EPA, 2015).

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

Federal Vehicle Standards

In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of carbon dioxide (CO₂) in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by

approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (U.S. EPA and NHTSA, 2016).

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). This rule would modify the existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026. SAFE standards are expected to uphold model year 2020 standards through 2026 (NHTSA 2018).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to increase in stringency at approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) CO₂ emissions (CARB, 2020) and has been challenged by 23 states. The litigation is ongoing.

State

Title 24 Energy Standards

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, became effective on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 Building Energy Efficiency Standard are approximately

53 percent more than the 2016 Title 24 Energy Standards for residential development and approximately 30 percent more efficient for non-residential development.

Executive Order B-30-15, Senate Bill 32, and Assembly Bill 197 (Statewide Interim GHG Targets)

California EO B-30-15 (April 29, 2015) set an “interim” statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons.

To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase the amount of renewable electricity provided state-wide to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California’s 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the Southern California Association of Governments (SCAG) region were eight percent by year 2020 and 13 percent by year 2035. In September 2010 and February 2011, the eight percent and the 13 percent targets were adopted, respectively.

On April 4, 2012, SCAG’s Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future*. The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with SB 375. The document contained a host of improvements to the region’s multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater

mobility. The RTP/SCS demonstrated the region’s ability to attain and exceed the GHG emission-reduction targets set forth by the CARB, and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG’s Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS’s goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an 8% reduction in GHG emissions per capita by 2020, an 18% reduction by 2035, and a 21% reduction by 2040 when compared with 2005 levels. These reductions meet or exceed the State’s mandate, which require an 8% reduction by 2020 and 13% by 2035.

In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018). The new SCAG targets are an 8% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035. On May 7, 2020, SCAG adopted “Connect SoCal”, the 2020-2045 RTP/SCS, for federal transportation conformity purposes only. On September 3, 2020, SCAG’s Regional Council unanimously voted to approve and fully adopt Connect SoCal, and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is designed to meet the regional GHG reduction targets for SCAG that were identified by CARB in 2018.

Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal contains 10 primary goals, as detailed below:

1. Encourage regional economic prosperity and global competitiveness.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.
3. Enhance the preservation, security, and resilience of the regional transportation system.
4. Increase person and goods movement and travel choices within the transportation system.
5. Reduce greenhouse gas emissions and improve air quality.
6. Support healthy and equitable communities.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.
10. Promote conservation of natural and agricultural lands and restoration of habitats.

Connect SoCal’s “Core Vision” centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing,

jobs, and transit closer together and increasing investment in transit and complete streets. The Core Vision includes: Sustainable Development, System Preservation and Resilience, Demand and System Management, Transit Backbone, Complete Streets, and Goods Movement.

From 2016 to 2045, Connect SoCal anticipates approximately 64 percent of household and 74 percent of new jobs will occur in Priority Growth Areas (PGAs). Connect SoCal's PGAs – Job Centers, Transit Priority Areas (TPAs), High Quality Transit Areas (HQTAs),² Neighborhood Mobility Areas (NMAs), Livable Corridors, and Spheres of Influences (SOIs) – account for only 4 percent of the region's total land areas, but will accommodate the afore mentioned growth statistics. The City of Whittier does not currently contain an HQTA, but the section of Whittier Boulevard west of I-605 is considered an HQTA and it is possible the Metro extension along Washington Boulevard could result in a future HQTA designation in the City.

Renewables Portfolio Standard (RPS) Program

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2017. The *2003 Integrated Energy Policy Report* recommended accelerating that goal to 20 percent by 2010, and the *2004 Energy Report Update* further recommended increasing the target to 33 percent by 2020. The State's *Energy Action Plan* also supported this goal. In 2006 under Senate Bill 107, California's 20 percent by 2010 RPS goal was codified. The legislation required retail sellers of electricity to increase renewable energy purchases by at least one percent each year with a target of 20 percent renewables by 2010. Publicly owned utilities set their own RPS goals, recognizing the intent of the legislature to attain the 20 percent by 2010 target.

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08 requiring “[a]ll retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020.” The following year, Executive Order S-21-09 directed CARB, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020.

In October 2015, Governor Brown signed Senate Bill 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly owned utilities to procure “half of the state's electricity from renewable sources by 2030.”

The State's RPS program was further strengthened by the passage of SB 100 in 2018. SB 100 revised the State's RPS Program to require retail sellers of electricity to serve 50% and 60% of the total kilowatt-hours sold to retail end-use customers from renewable energy sources by 2026 and 2030, respectively, and requires 100% of all electricity supplied come from renewable sources by 2045.

Executive Order B-55-18

On September 10, 2018, Governor Brown signed EO B-55-18, to achieve carbon neutrality by moving the State of California to 100% clean energy by 2045. This Executive Order also includes specific measures to reduce GHG emissions via clean transportation, energy efficient buildings, directing cap-and-trade funds to disadvantaged communities, and better management of the state's forest land.

Low Carbon Fuel Standard (LCFS) Regulation

² HQTAs are corridor-focused PGAs within half-a-mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick passengers up at a frequency of every 15 minutes (or less) during peak commuting hours.

CARB initially approved the LCFS regulation in 2009, identifying it as one of the nine discrete early action measures in the *2008 Scoping Plan* to reduce California’s GHG emissions. The LCFS regulation defines a Carbon Intensity, or “CI,” reduction target (or standard) for each year. The initial LCFS regulation required a reduction of at least 10 percent in the CI of California’s transportation fuels by 2020. In 2018, CARB approved amendments to the LCFS regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030, adding new crediting opportunities to promote ZEV adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. Under the 2018 amendments, the LCFS regulation now requires a reduction of at least 20 percent in CI by 2030 and beyond.

Assembly Bill 1493, Advanced Clean Cars Program, EO B-48-18, and EO N-79-20

With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and proactive approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California’s related request for a waiver, a waiver was granted. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles.

In January 2012, CARB approved the Advanced Clean Cars (ACC) Program (formerly known as Pavley II) for model years 2017-2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The Program combines the control of smog, soot, and global warming gases with requirements for greater numbers of zero-emission vehicles into a single package of standards. By 2025, new automobiles under California’s ACC Program will emit 34 percent less global warming gases and 75 percent less smog-forming emissions.

Executive Order B-48-18, issued by Governor Brown in January 2018, establishes a target to have five million ZEVs on the road in California by 2030. This Executive Order is supported by the State’s 2018 ZEV Action Plan Priorities Update, which expands upon the State’s 2016 ZEV Action Plan. While the 2016 plan remains in effect, the 2018 update function as an addendum, highlighting the most important actions State agencies are taking in 2018 to implement the directives of Executive Order B-48-18.

EO N-79-20, issued by Governor Newsom in September 2020, set a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. It also set a goal that 100 percent of medium- and heavy-duty vehicles in the state be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. In addition, this EO set a goal to transition to 100 percent zero-emission off-road vehicles and equipment in the state by 2035 where feasible.

4.6.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the General Plan Update would have a significant impact related to energy if it would:

- a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.6.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related energy impacts.

Energy Consumption

Impact ENG-1 – Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption or energy resources, during project construction or operation?

Analysis of Impacts

Implementation of the GPU would increase the demand for electricity and natural gas within the Planning Area and gasoline consumption in the region during construction and operation of new land use developments.

Electricity

Construction Use. Temporary electric power would be required at various construction sites throughout the city as growth occurs under the GPU. Electricity would be consumed by lighting and electronic equipment (e.g., computers) located in trailers used by construction crews, and by small, off-road equipment (e.g., compressors) used during development activities. However, the electricity used for such activities would be temporary and would have a negligible contribution to the overall energy consumption in the City.

Operational Use. Development facilitated under the GPU would require electricity for multiple uses, including, but not limited to: building heating and cooling, lighting, appliance use (e.g., washer, dryer, microwave, etc.), and other electronics (e.g., televisions). As described in Section 4.6.1, CalEEMod was used to estimate emissions from energy uses. Electricity generation was estimated in CalEEMod by adjusting the CalEEMod default values to reflect compliance between the 2013 and 2016 Title 24 Building Code efficiencies for 2019 and the 2019 Title 24 Building Code for GPU growth in 2040 (for mid-rise residential apartments only). Table 4.6-1 summarizes changes in electricity consumption that would occur over the next approximately 20 years of growth envisioned by the GPU.

**Table 4.6-1
Estimated Operational Change in Electricity Consumption (2019 vs. 2040)**

Metric	Electricity Consumption (GWh)		
	2019	2040	Change
Total Electricity Consumption	480,895	509,352	+28,457
Service Population (SP)	174,866	196,451	+21,585
Electricity Consumption Efficiency (kWh/yr/SP)	2.8	2.6	-0.2
Source: MIG, 2021 (see Appendix D).			

As shown in Table 4.6-1, electricity consumption in the Planning Area in 2040 is expected to increase by approximately 28,500 GWh when compared to 2019 conditions; however, on an efficiency basis, electricity consumption would decrease by approximately 6% from 2.75 GWh/yr/SP to 2.59 GW/yr/SP. Although growth would be occurring within the Planning Area under the GPU, new development and land use turn over would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which would decrease estimated electricity consumption in new and/or retrofitted structures. For this reason, the electrical energy that would be consumed by the GPU is not considered unnecessary, inefficient, or wasteful.

Natural Gas

Construction Use. Substantial natural gas consumption is not anticipated to occur during construction activities that could occur with GPU implementation. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection. Potential natural gas use during construction activities associated with future growth would not substantially contribute to overall energy consumption in the city, and would not be unnecessary, inefficient, or wasteful.

Operational Use. Natural gas consumption from development associated with the GPU would be required for various purposes, such as space and water heating in buildings. CalEEMod was used to estimate natural gas consumption associated with GPU implementation. Table 4-6.2 summarizes estimated changes in natural gas consumption over the next approximately 20 years of growth envisioned by the GPU.

**Table 4.6-2
Estimated Operational Change in Natural Gas Consumption (2019 vs. 2040)**

Metric	Natural Gas Consumption (MMBtu)		
	2019	2040	Change
Total Natural Gas Consumption	1,446,349	1,220,858	-225,491
Service Population (SP)	174,866	196,451	+21,585
Natural Gas Consumption Efficiency (kBtu/yr/SP)	8.3	6.2	-2.1
Source: MIG, 2021 (See Appendix D)			

Based on the demand calculations shown in Table 4.6-2, which assume the average energy efficiency of structures in the city would meet the 2019 Title 24 CALGreen efficiency requirements by 2040, natural gas consumption in the Planning Area in 2040 is expected to decrease by approximately 225,491 MMBtu as compared to 2019 conditions. On an efficiency basis, natural gas consumption is estimated to decrease, too, by approximately 25% from 8.3 MMBTU/yr/SP to 6.2 MMBTU/yr/SP percent.

Although growth would occur within the Planning Area over the next approximately 20 years, new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which would decrease estimated natural gas consumption in new and/or retrofitted structures. For these reasons, natural gas consumption by proposed land uses in the GPU is not considered to be unnecessary, inefficient, or wasteful.

Diesel and Gasoline Fuel

Construction Use. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed during construction activities as the city grows under the GPU. Fuel use by construction equipment would be the primary energy resource consumed during development activities, and VMT associated with the transportation of construction materials (e.g., deliveries) and worker trips would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles to travel to and from construction sites. State regulations such as LCFS would reduce the carbon intensity of transportation-related fuels, and all construction projects would be required to comply with CARB’s Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary at each location and required to conduct development activities, it would not be unnecessary, wasteful, or inefficient.

Operational Use. Vehicle fuel consumption associated with GPU implementation would occur over the next approximately 20 years and would primarily be attributable to people traveling to or from the city for work, shopping, school, or other reasons. The amount of diesel and gasoline vehicle fuel consumption in the city under existing 2019 and forecasted 2040 growth conditions is shown in Table 4.6-3.

**Table 4.6-3
Estimated Vehicle Fuel Consumption Changes (2019 vs. 2040)**

Metric	Vehicle Fuel Consumption (Gallons)		
	2019	2040	Change
Total Diesel Consumption	11,716,074	9,760,092	-1,955,982
Total Gasoline Consumption	84,424,587	68,717,783	-15,706,804
Total Petroleum Consumption	96,140,662	78,477,876	-17,662,786
Service Population	174,866	196,451	+21,585
Petroleum Consumption Efficiency (gal/yr/SP)	550	399	-150

Source: MIG, 2021 (See Appendix D)

As shown in Table 4.6-3, diesel and gasoline fuel consumption in 2040 with the GPU is anticipated to be approximately 9,760,092 and 68,717,783 gallons, respectively. Compared to 2019, this represents approximately 1,955,982 fewer gallons of diesel fuel consumed, annually, and approximately 17,662,786 fewer gallons of gasoline fuel consumed, annually.³ On a service population basis, overall petroleum consumption is expected to decrease by approximately 27%, from 550 gallons of fuel/yr/SP in 2019 to 399 gallons of fuel/yr/SP in 2040. Although VMT is anticipated to increase slightly over the next approximately 20 years, VMT per capita is estimated to decrease during the same time period and fuel consumption would generally decrease as vehicle fuel efficiency increases to meet state GHG reduction goals.⁴

There are numerous regulations in place that require and encourage fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of

³ These estimates are based on average fuel economy in Los Angeles County during the 2040 calendar year.

⁴ EIR fuel consumption estimates do not take into account EO N-79-20, issued by Governor Newsom in September 2020, which set a goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035.

smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and ZEVs in California. In addition, per the requirements identified in SB 375, CARB adopted a regional goal for the SCAG or reducing per-capita GHG emissions from 2005 levels by 8% by 2020 and 19% by 2035 for light-duty passenger vehicles. As such, actual fuel consumption in the City of Whittier could be lower in 2040 than estimated in Table 4.6-3.

Vehicle fuel use in the Planning Area is generally anticipated to decrease over the next approximately 20 years due to land use decisions made by the City, and because of fuel efficiency standards enacted at the state-level. In addition, vehicle fuel consumption in the city would be a small fraction of statewide use. As such, petroleum consumption associated with implementation of the General Plan Update would not be considered unnecessary, inefficient, or wasteful.

2021 General Plan Update. The City’s proposed 2021 GPU Resource Management Element inventories and evaluates the existing natural resources within and around the City, including the lands, fossil fuels, water, wildlife, plants and trees, and air (City of Whittier, 2021). Access to parks, trails, open space, and recreational facilities promotes interconnectivity throughout the City via non-vehicular means, and improves health and air quality through exercise and the reduction of mobile source emissions, respectively. The following goals, policies, and programs contained in the Resource Management Element would be applicable to energy resources, production, and consumption in the Planning Area.

Resource Management Element

Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

Policies

RM-3.1: Reduce emissions generated by motorized vehicles.

RM-3.2: Reduce energy use in municipal and construction operations.

RM-3.3: Support the use of energy-efficient design and renewable energy technologies in public and provide spaces and development projects.

RM-3.4: Prioritize compact and equitable development that supports walking and biking to nearby destinations.

RM-3.5: Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.

Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.2: Increase the City’s tree canopy.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar and reflective roofs).

Goal 6: A commitment to sustainability through progressive use of green building policies, practices, and technologies.

Policies

RM-6.1: Support energy efficiency through the Municipal Code and implementation of CALGreen standards.

RM-6.2: Incentivize energy-efficient retrofit improvements, including energy and water conservation in existing buildings.

Goal 7: Increased commitment to renewable energy sources.

Policies

RM-7.1: Support the efforts of energy suppliers to expand use of and access to non-fossil fuel-based energy sources such as geothermal, wind, and solar.

RM-7.2: Support efforts to develop small-scale, distributed energy (e.g., solar power, wind, cogeneration, and biomass) to reduce the amount of electricity drawn from the regional power grid, while providing Whittier with a greater degree of energy self-sufficiency.

Goal 8: Managed oil and gas production that balances contributions to City revenue and environmental protection goals.

Policies

RM-8.1: Maintain oil production and mineral extraction as a viable option and revenue source.

RM-8.2: Plan for and approach energy production with a wider lens, encouraging collaboration between a spectrum of energy industries to address energy needs and production.

RM-8.3: Encourage diversification of Whittier's energy economy to conserve fossil fuels and improve air quality.

RM-8.6: Minimize conflicts between mineral and energy resource lands and urban growth, particularly residential areas and sensitive communities.

General Plan Analysis. As described above, the consumption of electricity, natural gas, and vehicle fuel resources would be necessary to accommodate the planned level of growth envisioned by the GPU. Resource Conservation Element Goals 3, 4, 6, 7, and 8 and their attendant policies support redevelopment of existing land uses with newer, more efficient development that would reduce energy consumption compared to existing conditions. In addition, the GPU supports higher density, mixed use development that reduces VMT and fuel consumption as compared to other types of development.

Summary and Conclusions. As shown above, the use of energy resources in the Planning Area would become substantially more efficient over time with the change in land uses envisioned by the GPU and the application of more stringent regulations that reduce energy usage. For these reasons, the GPU would not result in the unnecessary, inefficient, or wasteful use of energy resources.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Renewable Energy

Impact ENG-2 – Would the GPU conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Analysis of Impacts

The GPU would not conflict with nor obstruct a state or local plan adopted for the purposes of increasing renewable energy or energy efficiency. The Title 24 Building Code contains energy efficiency standards for residential and non-residential buildings. These standards address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelope (e.g., windows, doors, walls and rooves, etc.) on energy consumption. The latest update to these standards, codified in the 2019 Title 24 Building Code, requires the installation of solar panels on new residential development under three stories. The City would enforce the 2019 Title 24 Building Code during design review and project approval processes. Other state plans, such as increasing the RPS portfolio, and increasing fuel efficiency and the number of electric vehicles on the road, would be implemented at the state level.

Resource Conservation Element Goals 3, 4, 6, 7, and 8 and their attendant policies support redevelopment of existing land uses with newer, more efficient development that would reduce energy consumption compared to existing conditions – these actions are all consistent with current state and regional plans that encourage the use of renewable energy. Therefore, the GPU would comply with applicable State standards and not impede any plan related to increasing renewable energy or energy efficiency.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact ENG-3 – Would the GPU cause substantial adverse cumulative impacts with respect to energy?

Analysis of Impacts

The analysis presented in Impact ENG-1 and ENG-2 is cumulative in nature. As described in the analyses, the GPU would not result in the unnecessary, inefficient, or wasteful use of energy resources nor would it conflict with or obstruct a state or local plan for increasing renewable energy or energy efficiency. GPU implementation would not result in a substantial adverse cumulative impact with respect to energy.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

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4.6 – Energy

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List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	Full Phrase or Description
AB	Assembly Bill
ACC	Advanced Clean Cars
Btu	British Thermal Unit
CalEEMod	California Emissions Estimator Model
Cal-EPA	California Environmental Protection Agency
CalGreen Code	California Green Building Standards Code
CARB	California Air Resources Board
CAFE	Corporate Average Fuel Economy
CBSC	California Building Standards Commission
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CI	Carbon Intensity
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
EISA	Energy Independency and Security Act
EO	Executive Order
GHG	Greenhouse Gas
GPU	General Plan Update
GWh	Gigawatt-hours
IAQ	Indoor Air Quality
HQTA	High Quality Transit Area
KWh	Kilowatt-hours
LCFS	Low Carbon Fuel Standard
LEV	Low-Emissions Vehicle
MMBTUs	Million British Thermal Units
MPO	Metropolitan Planning Organization
NHTSA	National Highway Safety Administration

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	Full Phrase or Description
NMA	Neighborhood Mobility Area
PGA	Priority Growth Area
PV	Photovoltaic
RFS	Renewable Fuel Standards
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SoCalGas	Southern California Gas Company
SOI	Sphere of Influence
SP	Service Population
TIA	Traffic Impact Assessment
TPA	Transit Priority Area
U.S.	United States
USEIA	United State Energy Information Administration
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
Yr	Year
ZEV	Zero Emission Vehicle

4.7 – Geology and Soils

This EIR chapter addresses geology and soils impacts associated with the proposed General Plan Update (GPU), including earthquake fault rupture, seismic hazards, liquefaction, landslides, soil erosion and unstable soils. In addition, potential impacts to paleontological resources is also analyzed in this chapter.

4.7.1 – ENVIRONMENTAL SETTING

Seismic Activity

Southern California is an area well known for its earthquake faults and seismicity. The region straddles two tectonic plates: the North American Plate and the Pacific Plate. Movement along this boundary has resulted in many earthquakes from the region's numerous faults. Exhibit 4.7-1 (Regional Faults and Historic Earthquakes) shows the location of the Planning Area in relation to regional faults and illustrates earthquake magnitudes in the area from 1932 to 2017. The Whittier Fault is located northeast of the Planning Area in the Puente Hills, a few miles from City Hall, and a concealed portion of the fault lies close to the Uptown area. The Whittier Fault is the northern segment of the Elsinore Fault Zone that extends to San Diego County.

Unmapped faults or faults that are relatively distant from the Planning Area can produce earthquakes that may have damaging impacts on Whittier. An example is the damage caused by the previously unknown concealed thrust fault located in the City of Rosemead that produced the Whittier Narrows Earthquakes of 1987.

The San Andreas Fault and the Newport-Inglewood Fault, both further than 10 miles from the Planning Area, have the capacity of producing a large earthquake that could affect Whittier. The San Andreas Fault could produce a magnitude-8.0 earthquake while the Newport-Inglewood Fault could produce a magnitude-7.4 earthquake (Whittier, 2017).

The most significant earthquake affecting the Planning Area was the October 1, 1987 Whittier Narrows Earthquake (magnitude 5.9), and the October 4, 1987 aftershock (magnitude 5.5). The Uptown area, with many unreinforced masonry buildings, was by far the hardest hit part of the City. At least 200 residences and 30 business were badly damaged. Most of the severe damage was to structures built before 1930. Landslides were also observed in Turnbull Canyon during this event. The City's Building and Safety Department found that 5,100 buildings were damaged by the quake, and of those, about 200 were deemed unsafe.

Other historic earthquakes have affected the Planning Area. A magnitude 4.7 earthquake in 1929 centered around the Whittier Fault was reported to have caused notable damage to buildings including several in East Whittier. The 1933 Long Beach Earthquake, one of the most damaging to hit the Los Angeles region, also damaged many buildings, including the Whittier High School Auditorium (Whittier, 2017).

Ground Shaking

Ground shaking is the movement of the earth's surface in response to a seismic event and, in general, is the primary cause for the collapse of buildings and other structures, injury, and loss of life. The intensity of the ground shaking is a function of the magnitude of the earthquake, distance from the fault movement, the characteristics of the surface and subsurface, geology, and a community's building types. Because of the Planning Area's proximity to several previously-identified active faults and because of the prevalent, motion-susceptible alluvium that

underlies the community, the Planning Area will undoubtedly experience earthquake-related ground shaking in the future. As shown in Exhibit 4.7-2 (Local Seismic Hazards), this ground shaking could result in local seismic hazards such as landslides, liquefaction, settlement/expansive soils, subsidence and soil erosion within the Planning Area.

Landslides and Liquefaction

Liquefaction is a phenomenon that occurs when water-laden, loose, and cohesionless soils are subject to intense seismic shaking and form a quicksand- or fluid-like soil condition below the ground surface. As a result, structural damage may occur as building foundations lose ground support. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of predominantly poorly consolidated fine sand.

A landslide is the downhill movement of masses of earth material under the force of gravity. The factors contributing to landslide potential are steep slopes, unstable terrain, and proximity to earthquake faults. Landslides and Liquefaction represent two seismically-induced hazards. Earthquake-induced landslides are secondary earthquake hazards that occur from ground shaking. Seismically induced slope failure can be expected within the Puente Hills, where slopes are 35 degrees or greater.

During the Whittier Narrows Earthquake, dust clouds rose over the southern flank of the San Gabriel Mountains caused by rock falls and surface land sliding from road cuts. As mentioned above, landslides also occurred in Turnbull Canyon. Soil liquefaction is a seismically induced form of ground failure, which has been a major cause of earthquake damage in Southern California. In the Planning Area, liquefaction hazards are present along drainage channels and on properties south of Lambert Road where high groundwater conditions exist, as shown in Exhibit 4.7-2.

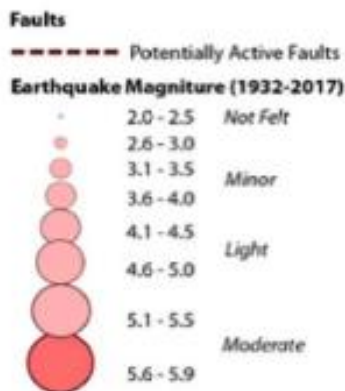
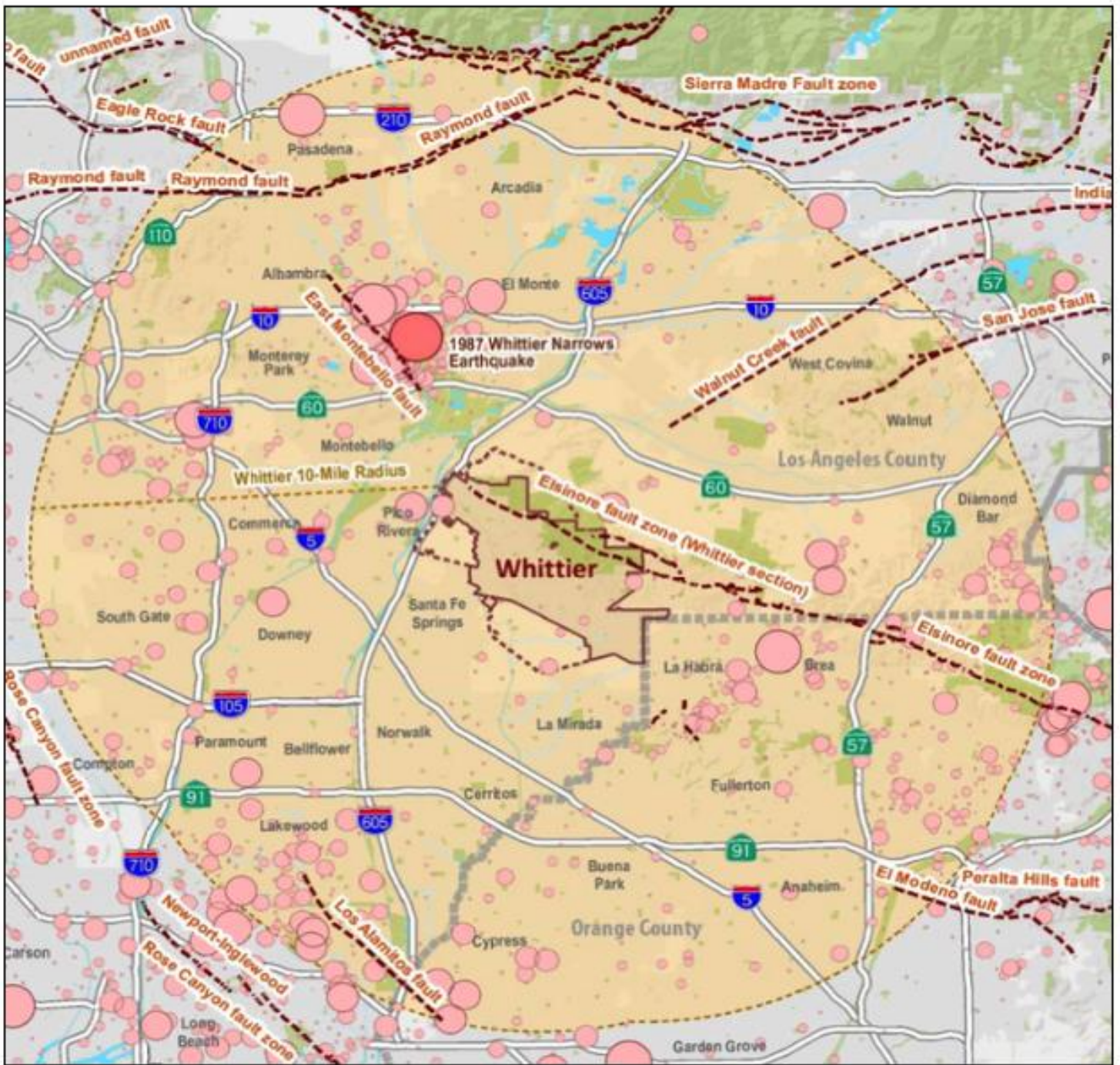
Settlement/Expansive Soils

Settlement of the ground may occur in poorly consolidated or particular soils or improperly compacted fills during earthquake shaking, though the problem could also arise during heavy rains. As a consequence, structural damage may take place. Expansive soils tend to swell with soil moisture increase and shrink during soil moisture decrease. The volume changes that the soils undergo in this repetitive process can stress and damage slabs and foundations if precautionary measures are not taken. Differential settlement can result from expansive soils if a foundation is constructed on two materials having different settling/expansion characteristics, such as rock and soil. The soil types in the Planning Area display moderate to high shrink-swell

Subsidence

Subsidence is the lowering of the land surface caused by a variety of man-made and natural causes. Subsidence can be caused by the natural compaction of soil due to passage of time, ground shaking due to strong vibrations by earthquakes, and by underground erosion from rapid groundwater flow or excessive groundwater withdrawal. Subsidence in the form of compaction of an aquifer is one of the consequences of excessive groundwater withdrawal. The water itself supports part of the load of the overlying materials and keeps the grains of the aquifer loosely packed. When water is removed from the intergranular spaces, the weight of the overlying rocks packs the grains of soil together more closely. This cannot only permanently reduce the capacity of the aquifer, but also cause serious lowering, or subsidence, of the ground overlying the aquifer. Areas most vulnerable to this type of subsidence are those underlain by loose, compressible clay-rich soils, in an area with excessive groundwater withdrawal and general lowering of the water table. No wells exist within the Planning Area; therefore, large-scale

subsidence relating to excessive groundwater withdrawal is not identified as a hazard (CMCA, 2007).



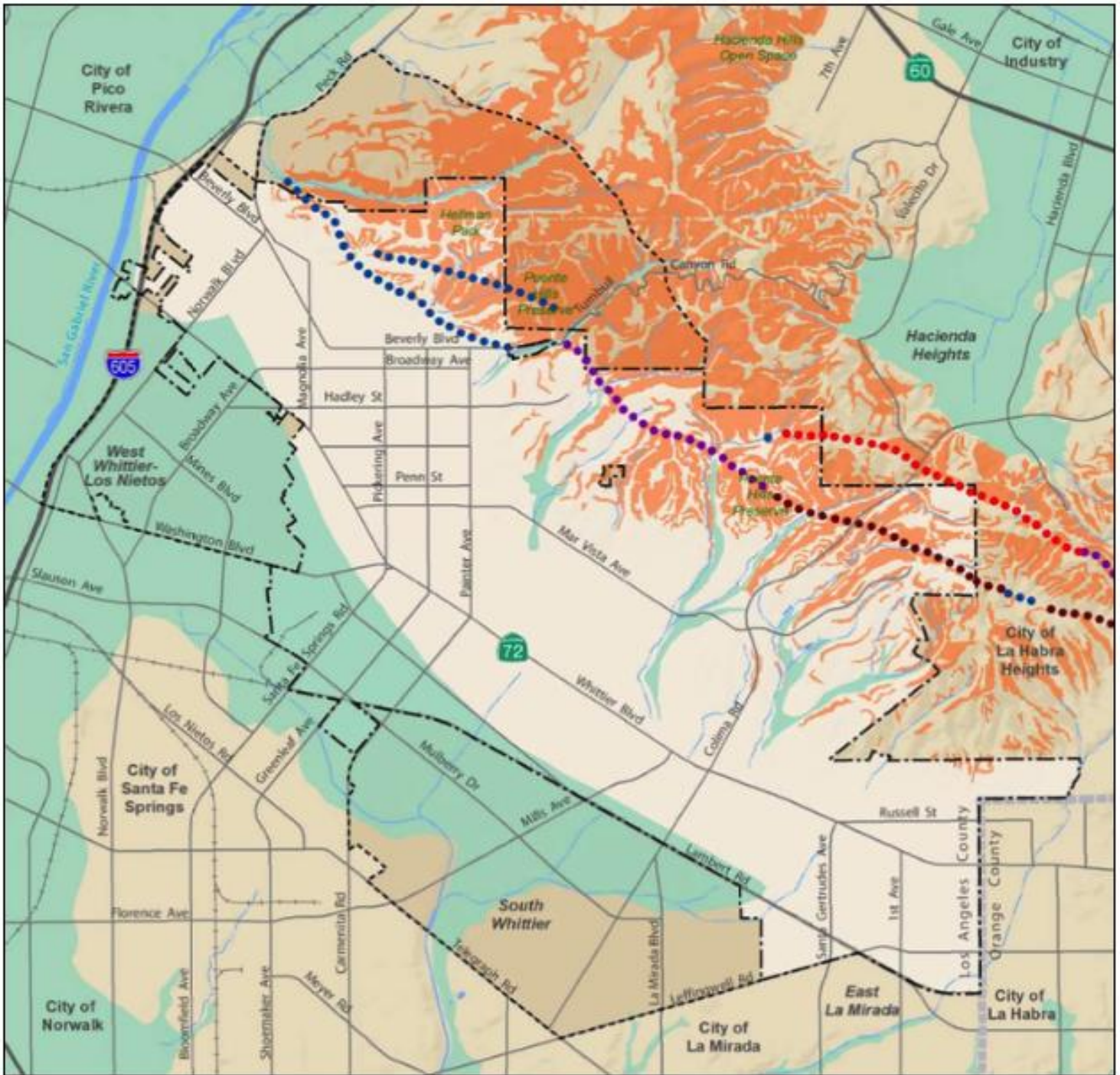
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Exhibit 4.7-1 Regional Faults & Historic Earthquakes

Whittier General Plan Update
Whittier, California

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Whittier Fault (Elsinore Fault Zone)

- Fault, Certain Location
- Reverse Fault, Certain
- Fault, Approximately Located
- Fault, Concealed

Seismically Induced Hazards

- Landslides
- Liquefaction

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies



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Exhibit 4.7-2 Local Seismic Hazards

Whittier General Plan Update

Whittier, California

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Soil Erosion

Erosion is a natural process that occurs over time and can be caused by either wind or water moving over soils. The natural erosion process is an important factor in building up fertile valley soils. However, soil erosion can become a problem when human activities accelerate the rate at which soils are being displaced. Non-point sources including impervious surfaces, unsound farming practices, over-grazing, construction activities, and road construction (particularly unpaved roads) can all accelerate the rate at which soils are removed from hillsides. Point sources such as industrial wastewater discharges, mining activities, wastewater treatment plants, commercial and residential land uses, and agricultural operations can affect erosion rates through increased storm water velocity, disturbance of natural drainage patterns, and water discharges. Soil erosion can leave silt-choked streams, gullied hillsides, and damaged farmland. Erosion may be a concern in the Planning Area, especially during initial grading stages of future development under the proposed GPUs (CMCA, 2007).

Paleontological Resources

Paleontology is a branch of geology that studies the life forms of the past, especially prehistoric life forms, through the study of plant and animal fossils. Paleontological resources represent a limited, non-renewable, and impact-sensitive scientific and educational resource. As defined in this section, paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints, from a previous geologic period.

Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried. Paleontological resources include not only the actual fossil remains, but also the collecting localities, and the geologic formations containing those localities. Paleontological resources preserve an aspect of Southern California's scientific prehistory that is important in understanding the development of the region as a whole.

Protection of potential paleontological resources can be achieved by estimating the probability of finding such resources in the project area, looking for formations in which they occur, and taking precautions, such as construction monitoring in areas with equivalent or similar formations, to avoid damaging sites. The Puente Hills are known to have paleontological resources that date back hundreds of thousands of years spanning several geologic eras (Whittier, 2017).

NOP Comments

A letter from the City's Historic Resources Commission (HRC) was received on May 15, 2021 that provided historical information about the HRC and its role in the development review process. Among other issues, the HRC made suggestions regarding how to deal with paleontological resources. The following sections evaluate that issue as requested by the HRC. Other issues related to historical and archeological resources are addressed in Section 4.4 on Cultural Resources.

4.7.2 – REGULATORY FRAMEWORK

Federal

National Earthquake Hazards Reduction Program

Established by Congress in 1977, the National Earthquake Hazards Reduction Program (NEHRP) leads the federal government's efforts to reduce the fatalities, injuries, and property losses caused by earthquakes. The four basic NEHRP goals are:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems.
- Improve earthquake hazards identification and risk assessment methods, and their use.
- Improve the understanding of earthquakes and their effects.

In its initial NEHRP authorization, and in subsequent reauthorizations, Congress has recognized that several key federal agencies can contribute to earthquake mitigation efforts.

Federal Antiquities Act of 1906

Protects paleontological resources on federal lands under Subsection 8.16.2.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Special Studies Zones Act was signed into law in 1972 (in 1994 it was renamed the Alquist-Priolo Earthquake Fault Zoning Act.) The primary purpose of the Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The Act dictates that cities and the State Geologist are to delineate "Earthquake Fault Zones" with setbacks along faults that are "sufficiently active" and "well defined."

Seismic Hazard Mapping Act

The Alquist-Priolo Earthquake Fault Zoning Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. In 1990 the State passed the Seismic Hazards Mapping Act (SHMA), which addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction and seismically induced landslides. The California Geological Survey (CGS) is the principal State agency charged with implementing the Act. Pursuant to the SHMA, the CGS is directed to provide local governments with seismic hazard zone maps that identify areas susceptible to liquefaction, earthquake-induced landslides and other ground failures. The goal is to minimize loss of life and property by identifying and mitigating seismic hazards. The seismic hazard zones delineated by the CGS are referred to as "zones of required investigation." Site-specific geological hazard investigations are required by the SHMA when construction projects fall within these areas.

Natural Hazards Disclosure Act

4.7 – Geology and Soils

The Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more State-mapped hazard areas.

California Building Code

The state regulations protecting structures from seismic hazards are contained in the California Code of Regulations, Title 24 (the California Building Code (CBC)), which is updated on a triennial basis. These regulations apply to public and private buildings in the State. Provisions of the CBC address (among other topics) fire safety, access for disabled persons, and seismic-resistant construction design.

California Environmental Quality Act (CEQA)

California Environmental Quality Act (CEQA) has a single directive on paleontology in Appendix G – the Environmental Checklist Form, in which it asks whether the project would "directly or indirectly destroy a unique paleontological resource or site or unique geologic feature." Requires that impacts to paleontological resources be assessed and mitigated on all discretionary projects, public and private under Subsection 8.16.2.2

California Public Resources Code Chapter 1.7, Section 5097.5 (Stats. 1965, c. 1136, p. 2792)

Defines any unauthorized disturbance or removal of a fossil site or fossil remains on public land as a misdemeanor and specifies that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources under Subsection 8.16.2.2

Regional

South Coast Air Quality Management District Rules

Rule 403 requires the implementation of best available dust control measures (BADCM) during active operations capable of generating fugitive dust. Rule 403.1 is a supplemental rule to Rule 403 and is applicable to man-made sources of fugitive dust. The purpose of this rule is to reduce fugitive dust and resulting PM₁₀ emissions from man-made sources. Rule 403.1 requires a Fugitive Dust Control Plan approved by South Coast AQMD or an authorized local government agency prior to initiating any construction/earth-moving activity. These requirements are only applicable to construction projects with 5,000 or more square feet of surface area disturbance.

Local

City of Whittier General Plan

Government Code Section 65302.1 requires that a Safety Element be included in every General Plan which establishes policies and programs for the protection of the community from fires, flooding, geologic and other natural and human caused hazards. The existing 1993 Safety Element of the Whittier General Plan contains goals, objectives, and implementing policies designed to protect the community from risks associated with earthquakes, flooding, and other hazards. Applicable goals and policies include:

Goal 2: Minimize loss of life, injuries, damage to property, and social and economic dislocation resulting from future regional or local seismic activity.

Policy 2.2: Provide for the orderly abatement of structural hazards within the community, consistent with the degree of earthquake risk the community is willing to accept.

Safety standards related to seismic hazards in the General Plan on page 7-10 include: Geologic investigations should be performed for projects within one-half mile of the Whittier fault trace. Buildings should be located away from the fault, as much as possible. Investigations should also be performed for development on potential landslide areas. Exposed slopes should be landscaped immediately after grading to prevent erosion and mudflow.

City of Whittier Municipal Code

Chapter 12.28 of the City's Municipal Code implements General Plan standards and establishes requirements to prevent erosion during construction activity on slopes:

12.28.100

A. No excavation shall be made with a cut face steeper than that recommended by a report of a soils engineer, nor shall fills be made with slopes steeper than recommended in the report of a soils engineer.

B. The city engineer may require slopes less steep than those required in subsection A of this section if there is evidence that the materials to be exposed on the slopes are unusually subject to erosion, or if other conditions make the flatter slopes necessary for stability or safety.

C. Steeper slopes than those permitted in subsection A of this section may be permitted by the city engineer subject to the following conditions: that an additional written report by a soils engineer is received, stating that he has investigated the site, made adequate tests and calculations, together with his opinion as to the degree of cut and fill slopes which may be constructed without endangering health, safety or property

12.28.130. Approved groundcover shall be required on all slopes where, in the opinion of a soils engineer, there may be erosion. The groundcover work shall be started immediately after the approval of the work on the slopes. Chapter 8.36 of the City's Municipal Code establishes requirements to control runoff which helps prevent erosion.

8.36.120. Any person engaged in a construction activity subject to municipal NPDES permit, shall be required to implement BMPs specified by the regional board, its executive officer, or the city's public works director.

4.7.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to geology and soils if it would:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - I. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
 - II. Strong seismic ground shaking;
 - III. Seismic-related ground failure, including liquefaction; or
 - IV. Landslides;
- b) Result in substantial soil erosion or the loss of topsoil;

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the GPU, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

4.7.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

Faults, Liquefaction, and Seismic-Related Ground Failure

Impact GEO-1 –Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault- Refer to Division of Mines and Geology Special Publication 42; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; or iv) Landslides.

Analysis of Impacts

The Planning Area contains a number of identified geologic, seismic, and soil constraints. The Whittier segment of the active Elsinore Fault is located along the northeastern portion of the City near its boundary with the Sphere of Influence along the foot of the Puente Hills. Other smaller fault structures are located in the Puente Hills slightly east of the Elsinore Fault. The Whittier area has experienced moderate to severe groundshaking in the past from regional earthquakes. The land within the City limits is generally characterized as alluvium washed out of the nearby Puente Hills to the northeast, resulting in deep sandy and silty soils underlying the flatter portions of the Whittier area. Much of the land in the Puente Hills consists of steep slopes that may be subject to landslides, especially during strong earthquakes.

There are approximately half a dozen narrow liquefaction zones in the City associated with streams coming out of the Puente Hills from the northeast, while a larger liquefaction zone has been identified along the southeastern boundary of the City in the area of Verde Creek, Leffingwell Creek, and the Sorensen Avenue Drain. This larger liquefaction zone also extends into the City of Santa Fe Springs and the communities of South Whittier and West Whittier-Los Nietos. Due to the presence of local and regional faults, sandy soils, and shallow groundwater, portions of the City may experience liquefaction during strong seismic events.

Due to its location and physical conditions, future development in the Planning Area would be subject to a number of geologic and seismic constraints which may represent a potentially significant impact on future structures.

The Safety Element of the current General Plan contains Goal 2.0 and its Policy 2.2 which acknowledge these potential risks and requires structures to provide adequate levels of safety

for the community. Specific actions related to seismic hazards in the General Plan include geologic investigations to be performed for projects within one-half mile of the Whittier Fault and for development on potential landslide areas. The City also requires that the recommendation of such investigations be implemented were necessary to address potential hazards. The City also requires that exposed slopes be landscaped immediately after grading to prevent erosion or mudflows (GP page 7-10).

In addition to the General Plan, the State Building Code (SBC) has guidelines on building design and construction based on seismic constraints and expected groundshaking throughout California. Also, Section 12.28 of the Municipal Code (MC) has guidelines and restrictions regarding new development on steep slopes. During the City's existing development review process, proposed private projects are evaluated against the seismic design constraints of the SBC and the slope guidelines of the MC, if applicable.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to seismic safety for the City - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 1: A resilient community well prepared to minimize risks associated with natural hazards and disasters.

Policies

PSHN-1.1: Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

PSHN-1.2: Promote improved inter-jurisdictional consultation and communication regarding disaster or emergency plans of Los Angeles and Orange Counties, and for seismic safety upgrades of public facilities and infrastructure such as dams, reservoirs, and highway structures.

PSHN-1.3: Partner with neighboring cities, regional agencies, local school districts, Whittier College, local businesses, and community organizations to conduct emergency and disaster preparedness exercises that test operational and emergency response plans.

PSHN-1.4: Ensure operational readiness of the Emergency Operations Center (EOC) by conducting annual training for staff and maintaining, testing, and updating equipment to meet current standards.

PSHN-1.5: Train and educate public volunteers in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

Goal 4: A community well prepared to respond to a major seismic event and to minimize risk of injury, loss of life, property damage, and social service and economic impacts.

Policies

PSHN-4.1: Educate the community on actions to take before, during, and after a major earthquake.

PSHN-4.2: Encourage residents and businesses to undertake seismic retrofitting of existing structures.

4.7 – Geology and Soils

PSHN-4.3: Ensure that all new development abides by current City and State seismic and geotechnical requirements.

PSHN-4.4: Identify a plan of action and consult with different responsible agencies to respond to and recover from a major earthquake.

PSHN-4.5: Strive to ensure that all utility and infrastructure systems have continued functionality during and after a major earthquake.

PSHN-4.6: Require that projects in areas susceptible to liquefaction, landslides, and other geologic hazards demonstrate that all appropriate engineering and planning mitigations are implemented.

General Plan Analysis. Goal 1 and its policies will assist the City to generally withstand disasters, including earthquakes and seismic-related hazards. Goal 4 and its policies will assist the community to specifically withstand and recover from a major earthquake.

Summary and Conclusions. With implementation of these General Plan goals and policies, State Building Code, and guidelines for development on steep slopes in the municipal code, potential impacts related to geologic and seismic constraints on future development within the Planning Area would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None Required.

Soil Erosion

Impact GEO-2 – Would the GPU result in substantial soil erosion or the loss of topsoil?

Analysis of Impacts

The northeastern portion of the City along with most of the northeastern Sphere of Influence in the Puente Hills has steep slopes that are subject to erosion. In addition, the flatter portions of the Planning Area are also subject to erosion by wind and water where native soils are left exposed during periods of high wind or strong storms. As a result, local soils may be subject to erosion or loss of topsoil as future development under the GPU occurs on vacant land or where reconstruction of existing development occurs.

Safety standards related to erosion in the existing General Plan include “exposed slopes should be landscaped immediately after grading to prevent erosion and mudflow” (GP p. 7-10). In addition, development projects larger than half an acre must comply with regulatory permitting requirements of multiple regional and state agencies. For example, development must meet the requirements of the National Pollution Discharge Elimination System (NPDES) through preparation of a Storm Water Pollution Prevention Plan (SWPPP) for short-term construction-related water quality impacts plus a Water Quality Management Plan (WQMP) for long-term impacts from project occupancy.

Chapter 12.28 of the City’s Municipal Code (MC) implements General Plan standards and establishes requirements to prevent erosion during construction activity on slopes, including minimizing steep manufactured slopes, planting groundcover on bare soil, and implementing appropriate best management practices (BMPs) as part of regulatory requirements and

permitting or water quality. The City's development review process evaluates proposed development against established BMPs and other water quality-related guidelines, many of which are designed to control runoff and erosion.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to soil erosion - please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.2 Enhance the urban forest along street corridors, in parks, and on City-owned properties to provide soil stabilization and erosion reduction as well as reduce flood hazards.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

RM-2.7: Reduce impermeable surface coverage citywide by replacement with natural vegetation and soils to reduce runoff and flood hazards.

Public Safety, Noise, and Health Element

Goal 6: A community well protected from flood hazards.

Policies

PSHN-6.1: Maximize the resiliency of essential public facilities to risks and hazards of flooding.

PSHN-6.2: Evaluate the need to expand the capacity of flood control facilities to minimize flood hazards resulting from extreme weather events.

PSHN-6.3: Monitor the work of the Army Corps of Engineers' and other federal agencies' response plan to repair the Whittier Narrows Dam.

PSHN-6.4: Encourage natural flood control infrastructure and techniques to capture storm water, recharge aquifers, and prevent flooding near established drainage systems and channels.

PSHN-6.5: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

General Plan Analysis. Resource Management Element Goal 2 and its policies will protect soil and water resources by encouraging soil conservation, increasing water filtration, increasing water supplies and water quality, coordinating with other agencies on groundwater cleanup, require appropriate landscaping and BMPs to improve water quality for all new development, and reduce impermeable surfaces and so reduce surface runoff. In addition, Goal 6 of the Public Safety, Noise, and Health Element and its attendant policies will help protect Whittier from flooding, protect the City’s critical infrastructure, expand flood control facilities where needed, and modify drainages as necessary to reduce rather than just convey runoff through careful design.

Summary and Conclusions. With implementation of these General Plan goals and policies, water quality regulatory permitting requirements, and guidelines for erosion control in the municipal code, potential impacts related to erosion from future development within the Planning Area would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Slope Stability and Landslides

Impact GEO-3 – Would the GPU be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the GPU, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Analysis of Impacts

As previously indicated, the Planning Area contains a number of identified geologic, seismic, and soil constraints. The Whittier segment of the active Elsinore Fault is located along the northeastern portion of the City near its boundary with the Sphere of Influence along the foot of the Puente Hills. The Whittier area has experienced moderate to severe groundshaking in the past from regional earthquakes. It is possible future events could trigger landslides, lateral spreading, subsidence, or liquefaction.

The land within the City limits is generally characterized as alluvium washed out of the nearby Puente Hills to the northeast, resulting in deep sandy and silty soils underlying the flatter portions of the Whittier area. Where shallow groundwater occurs, there is a potential for liquefaction during moderate to large seismic events. Much of the land in the Puente Hills northeast of the City consist of steep slopes that may be subject to landslides, especially during strong earthquakes (see Impact GEO-1 above for a detailed discussion of liquefaction and landslides).

Due to the presence of local and regional faults, sandy soils, and shallow groundwater, portions of the City may experience subsidence, lateral spreading, or collapse during strong seismic events in addition to the potential for liquefaction or landslides. These seismic-related conditions could affect structures and their occupants of future development under the GPU.

The State Building Code (SBC) has guidelines on building design and construction based on seismic constraints and expected groundshaking throughout California. During the City’s existing development review process, proposed private projects are evaluated against the seismic design constraints of the SBC.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to slope stability and landslides - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 4: A community well prepared to respond to a major seismic event and to minimize risk of injury, loss of life, property damage, and social service and economic impacts.

Policies

PSHN-4.1: Educate the community on actions to take before, during, and after a major earthquake.

PSHN-4.2: Encourage residents and businesses to undertake seismic retrofitting of existing structures.

PSHN-4.3: Ensure that all new development abides by current City and State seismic and geotechnical requirements.

PSHN-4.4: Identify a plan of action and consult with different responsible agencies to respond to and recover from a major earthquake.

PSHN-4.5: Strive to ensure that all utility and infrastructure systems have continued functionality during and after a major earthquake.

PSHN-4.6: Require that projects in areas susceptible to liquefaction, landslides, and other geologic hazards demonstrate that all appropriate engineering and planning mitigations are implemented.

General Plan Analysis. Public Safety, Noise, and Health Element Goal 4 and its policies will assist the City to prevent unstable geologic or soil conditions to cause significant impacts to new development and public works activities, especially Policy PSHN-4.6.

Summary and Conclusions. With implementation of these General Plan goals and policies and the State Building Code, potential impacts related to seismically induced constraints on future development within the Planning Area would be reduced to less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Settlement of Soil

Impact GEO-4 – Would the GPU be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Analysis of Impacts

The Planning Area contains a number of soil constraints. The land within the City limits is generally characterized as alluvium washed out of the nearby Puente Hills to the northeast, resulting in deep sandy and silty soils underlying the flatter portions of the Whittier area. In

4.7 – Geology and Soils

areas where soils have a high clay content, the potential exists for expansion when the soil becomes saturated with water. This type of soil constraint could affect structures and their occupants of future development under the GPU.

The Safety Element of the current General Plan contains Goal 2.0 and its Policy 2.2 which acknowledge these potential geologic and soil-related risks and require structures to provide adequate levels of safety for the community.

In addition to the General Plan, the State Building Code (SBC) has guidelines on building design and construction based on soil conditions and limitations in California. During the City's existing development review process, proposed private projects are evaluated against the soil design constraints of the SBC.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to expansive soils - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 4: A community well prepared to respond to a major seismic event and to minimize risk of injury, loss of life, property damage, and social service and economic impacts.

PSHN-4.3: Ensure that all new development abides by current City and State seismic and geotechnical requirements.

PSHN-4.6: Require that projects in areas susceptible to liquefaction, landslides, and other geologic hazards¹ demonstrate that all appropriate engineering and planning mitigations are implemented.

General Plan Analysis. Public Safety, Noise, and Health Element Goal 4 and its policies will assist the City to prevent expansive soil conditions from causing significant impacts to new development and public works activities, especially implementation of Policies PSHN-4.3 and PSHN-4.6.

Summary and Conclusions. With implementation of this General Plan goal and policies and the State Building Code, potential impacts related to soil constraints, including expansive soils, would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Soil Drainage

Impact GEO-5 – Would the GPU have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Analysis of Impacts

¹ "other geologic hazards" includes expansive soils

As previously indicated, the Planning Area contains a number of soil constraints. The land within the City limits is generally characterized as alluvium washed out of the nearby Puente Hills to the northeast, resulting in deep sandy and silty soils underlying the flatter portions of the Whittier area. However, there may be areas in the Planning Area (e.g., Puente Hills) where local soils may have constraints relative to the placement of septic or similar wastewater treatment systems. These types of soil constraint could affect structures and their occupants of future development under the GPU.

The State Building Code (SBC) has general guidelines on infrastructure design and construction based on soil conditions and limitations in California. During the City’s existing development review process, proposed private projects are evaluated against the soil design constraints of the SBC, including those requiring septic or alternative wastewater treatment systems. The City typically requires this information be provided in a soils constraints or geotechnical constraints report signed by a registered engineer or geologist.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to soil drainage - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 4: A community well prepared to respond to a major seismic event and to minimize risk of injury, loss of life, property damage, and social service and economic impacts.

PSHN-4.3: Ensure that all new development abides by current City and State seismic and geotechnical requirements².

PSHN-4.6: Require that projects in areas susceptible to liquefaction, landslides, and other geologic hazards² demonstrate that all appropriate engineering and planning mitigations are implemented.

General Plan Analysis. Public Safety, Noise, and Health Element Goal 4 and its policies will assist the City to adequately plan for alternative waste water disposal systems when they are needed.

Summary and Conclusions. With implementation of this General Plan goal and its policies and the State Building Code, potential impacts related to soil constraints, including soils not capable of accommodating septic systems where proposed for future development within the Planning Area, would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Paleontological Resources

Impact GEO-6 – Would the GPU directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Analysis of Impacts

² “other geologic hazards” includes soils that cannot accommodate septic systems where proposed, and geotechnical studies include soil suitability if septic systems are proposed as part of development

4.7 – Geology and Soils

As indicated in Section 4.7.1, the Puente Hills are known to have paleontological resources that date back hundreds of thousands of years spanning several geologic eras. In addition, the Puente Hills may contain isolated geologic features especially in some of the steeper less accessible areas. The City's development review process requires research and technical analysis to determine if a site contains identified or possible paleontological or unique geologic resources. This would be especially important for development on previously undisturbed land in the Puente Hills if it contained steep slopes, rocky outcroppings, etc.

2021 General Plan Update. Provided below are the proposed GPU goal and policies related to paleontological resources- please see Appendix B for the full text of each goal or policy.

Historical Resource Element

Goal 3: Protect historic and cultural resources from demolition, destruction, or inappropriate actions or consequences.

HR-3.2: Suspend development activity when archaeological and/or paleontological resources are discovered during construction.

General Plan Analysis. Historical Resource Element Goal 3 and its Policy HR-3.2 will help identify and protect previously unknown paleontological resources if they are discovered during grading for new development.

Summary and Conclusions. With implementation of this General Plan goal and its policy, potential impacts related to paleontological resources and future development within the Planning Area would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact GEO-7 – Would the GPU cause substantial adverse cumulative impacts with respect to geology and soils?

Analysis of Impacts

The Planning Area and surrounding communities contain a variety of geologic, seismic, and soil constraints. The Whittier segment of the active Elsinore Fault crosses the northeastern portion of Whittier as well as Pico Rivera to the northwest and La Habra Heights to the southeast. The steep slopes and attendant landslide risks of the Puente Hills affect Whittier as well as Hacienda Heights and La Habra Heights. Liquefaction risks affect the nearby cities of Santa Fe Springs, Downey, and Pico Rivera. As a result, future development within the Planning Area and surrounding region would be subject to a number of geologic, seismic, and constraints and could affect paleontological resources as well.

State law requires that the Safety Elements of city general plans, including Whittier, address potential geologic and seismic constraints. The Safety Element of the current General Plan contains Goal 2.0 and its Policy 2.2 which acknowledge these potential risks and requires structures to provide adequate levels of safety for the community. Specific actions related to seismic hazards in the Whittier General Plan include geologic investigations be performed for

projects within one-half mile of the Whittier Fault, buildings should be located away from the fault, investigations are required for development on potential landslide areas, and exposed slopes be landscaped immediately after grading to prevent erosion or mudflows (GP page 7-10).

The Public Safety, Noise, and Health Element of the proposed GPU contains goals and policies which will continue to identify and protect the community from geologic and seismic risks and protect paleontological resources.

The General Plans for the surrounding cities and the Los Angeles County General Plan are all required to identify potential risks from geologic and seismic conditions and contain goals and policies to address these risks and protect the public. These goals and policies are intended to be consistent with state law and are similar to those of Whittier's General Plan. In addition to local general plans, the State Building Code (SBC) has guidelines on building design and construction based on seismic constraints and expected groundshaking throughout California.

In these ways, potential cumulative impacts to future development from geologic, seismic, and soil constraints will be minimized, and future development in the City of Whittier under the GPU will not make a significant contribution to any cumulative regional impacts on geologic, seismic, soil, or paleontological resources.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.7.5 REFERENCES

California Department of Conservation, 1999. *Map of Earthquake Zones of Required Investigation, Baldwin Park Quadrangle, California Geological Survey*, March 25. (http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/BALDWIN_PARK_EZRIM.pdf website accessed January 28, 2021).

California Department of Conservation, 2010. *Fault Activity Map of California*. (<http://maps.conservation.ca.gov/cgs/fam/> website accessed January 28, 2021).

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

Crawford, Multari, & Clark Associates. CMCA. *Uptown Whittier Specific Plan Draft Environmental Impact Report*. SCH# 2006111085. October 8, 2007.

4.8 – Greenhouse Gases

This section describes the existing environmental and regulatory greenhouse gas (GHG) setting of the planning area and evaluates the Project's potential GHG emissions impacts. The methodologies and assumptions used in the preparation of this section follow guidance from the South Coast Air Quality Management District (SCAQMD). Information on existing GHG emissions levels and applicable Federal and State regulations was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This EIR GHG analysis has been closely coordinated with the air quality and energy analyses in Sections 4.3 and 4.6 of this EIR. Please refer to Appendix D for detailed air quality and GHG emissions estimates (MIG, 2021).

As described in Section 4.8.4, potential Project impacts with respect to GHG include significant emissions levels and conflict with a plan adopted for the purposes of reducing GHG emission (CARB's 2017 Climate Change Scoping Plan).

4.8.1 – ENVIRONMENTAL SETTING

Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e., changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affect the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just average increase in temperatures near the Earth's surface. Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (°F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic
- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet, and without it, life as we know it on Earth would not exist. Human activities since the beginning of the industrial revolution (approximately 150 years) have been adding to the natural greenhouse effect by increasing the gases in the atmosphere that "trap" energy, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

Greenhouse Gases

Gases that “trap” heat in the atmosphere and affect regulation of the Earth’s temperature are known as “greenhouse gases”. Many chemical compounds in the Earth’s atmosphere exhibit the GHG property. GHG allow sunlight to enter the atmosphere freely. When the sunlight strikes the Earth’s surface, it is either absorbed or reflected back toward space. Earth, or materials near the Earth’s surface, that have absorbed energy from sunlight warm up during the daytime and emit infrared radiation back toward space during both the daytime and nighttime hours. GHG absorb this long-wave, infrared radiation and help keep the energy in the Earth’s atmosphere.

GHG that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants because climate regulation is global in scale, both in terms of causes and effects. Some GHG are emitted to the atmosphere naturally by biological and geological processes such as evaporation (water vapor), aerobic respiration (carbon dioxide, or CO₂), and off-gassing from low-oxygen environments such as swamps or exposed permafrost (methane or CH₄). However, GHG emissions from human activities such as fuel combustion (e.g., CO₂) and refrigerants use (e.g., hydrofluorocarbons, or HFCs) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric CO₂ concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to approximately 419 ppm in April 2021 (NOAA, 2021). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations’ Kyoto Protocol international treaty set targets for reductions in emissions of four specific GHG—CO₂, CH₄, nitrous oxide (N₂O), and sulfur hexafluoride (SF₆)—and two groups of gases—HFCs and perfluorocarbons (PFCs). These GHG are the primary GHG emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the Earth’s temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Black carbon consists of particles emitted during combustion; although a particle and not a gas, black carbon also acts to trap heat in the Earth’s atmosphere. The most common GHG are described below.

- **Carbon Dioxide (CO₂)** is emitted and removed from the atmosphere naturally. Animal and plant respiration involves the release of CO₂ from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO₂ at the sea surface. CO₂ is also released from plants during wildfires. Volcanic eruptions release a small amount of CO₂ from the Earth’s crust. Human activities that affect CO₂ in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of CO₂ emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO₂. Emissions from industrial activities also emit CO₂ such as cement, metal, and chemical production and use of petroleum produced in plastics, solvents, and lubricants.
- **Methane (CH₄)** is emitted from human activities and natural sources. Natural sources of CH₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause CH₄ releases include fossil fuel production, animal digestive processes from farms, manure management, and waste

management. It is estimated that 50% of global CH₄ emissions are human generated. Releases from animal digestive processes at agricultural operations are the primary source of human-related CH₄ emissions. CH₄ is produced from landfills as solid waste decomposes. CH₄ is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use. Decomposition of organic material in manure stocks or in liquid manure management systems also releases CH₄. Wetlands are the primary natural producers of CH₄ because the habitat is conducive to bacteria that produce CH₄ during decomposition of organic material.

- **Nitrous Oxide (N₂O)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N₂O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N₂O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of N₂O, although parts of the world where catalytic converters are used (such as California) have significantly lower levels than those areas that do not.
- **Sulfur Hexafluoride (SF₆)** is commonly used as an electrical insulator in high-voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF₆ occur during maintenance and servicing as well as from leaks of electrical equipment.
- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely human made and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing. HFCs and PFCs are also used as substitutes for ozone-depleting gases like chlorofluorocarbons (CFCs) and halons.

In 1997, the United States (U.S.) was a signatory to the Kyoto Protocol; however, the treaty was not sent to Congress for ratification. Thus, while a signatory to the Kyoto Protocol, the U.S. is not an official party to this international agreement and is not subject to any emission reductions goals established pursuant to the Kyoto Protocol. Although the U.S. is not a party to this agreement, the GHG targeted for reduction by the Kyoto Protocol are also targeted under federal and State GHG reporting and emissions reduction programs.

GHG can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO₂, which has a GWP of one. By comparison, CH₄ has a GWP of 25, which means that one molecule of CH₄ has 25 times the effect on global warming as one molecule of CO₂. Multiplying the estimated emissions for non-CO₂ GHG by their GWP determines their CO₂ equivalent (CO₂e), which enables a project's combined GWP to be expressed in terms of mass CO₂ emissions. The GWP and estimated atmospheric lifetimes of the common GHG are shown in Table 4-8-1.

**Table 4.8-1
Global Warming Potential (GWP) of Common GHG (100-Year Horizon)**

GHG	GWP ^(A)	GHG	GWP ^(A)
Carbon Dioxide (CO ₂)	1	Perfluorocarbons (PFCs)	
Methane (CH ₄)	25	CF ₄	6,500
Nitrous Oxide (N ₂ O)	298	C ₂ F ₆	9,200
Hydrofluorocarbons (HFCs)		C ₄ F ₁₀	7,000
HFC-23	14,800	C ₆ F ₁₄	7,400
HFC-134a	1,430	Sulfur Hexafluoride (SF ₆)	22,800
HFC-152a	140		
HCFC-22	1,700		
Source: CARB, 2014 (A) GWPs are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) 4 th Assessment Report.			

Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA, 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation. The potential impacts of global climate change in California are detailed below.

In January 2018, the CNRA adopted *Safeguarding California Plan: 2018 Update*, which builds on nearly a decade of adaptation strategies to communicate current and needed actions State government should take to build climate change resiliency. It identifies hundreds of ongoing actions and next steps that State agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations. The 2018 update also has two new chapters and incorporates a feature showcasing the many linkages among policy areas. A new “Climate Justice” chapter highlights how equity is woven throughout the entire plan (CNRA, 2018).

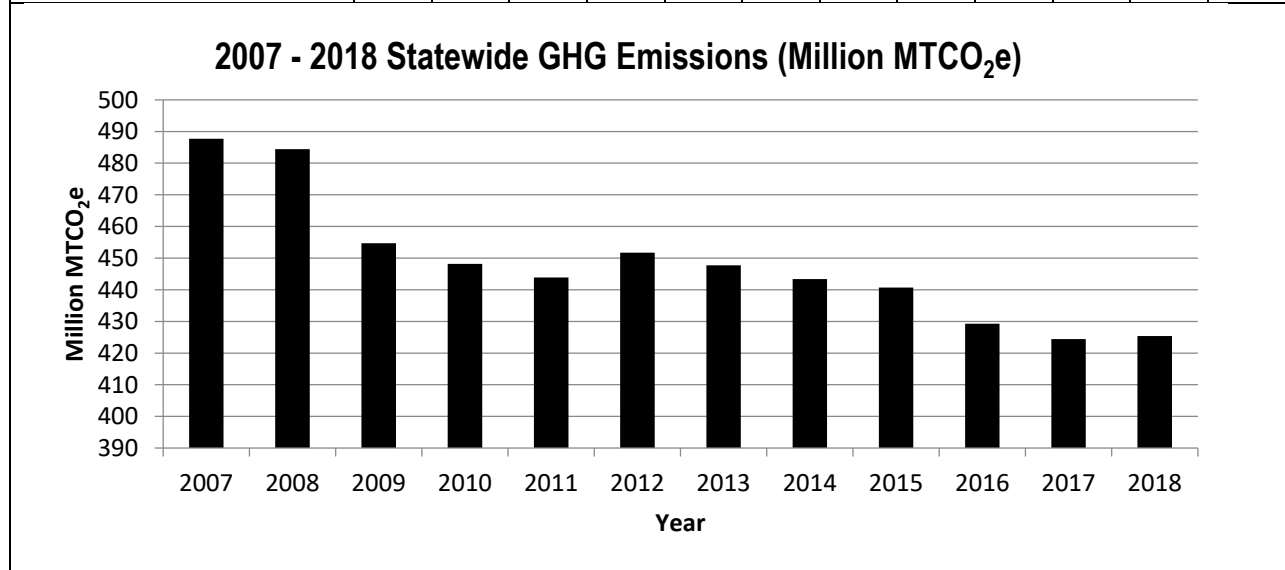
Statewide GHG Emissions

CARB prepares an annual statewide GHG emission inventory using regional, State, and federal data sources, including facility-specific emissions reports prepared pursuant to the State’s Mandatory GHG Reporting Program. The statewide GHG emission inventory helps CARB track progress towards meeting the State’s Assembly Bill (AB) 32 GHG emissions target of 431 million metric tons of CO₂ equivalents (MTCO₂e), as well as establish and understand trends in

GHG emissions¹. Statewide GHG emissions for the 2007 to 2018 time period are shown in Table 4.8-2 (2007-2018 Statewide GHG Emissions (Million MTCO₂e)).

**Table 4.8-2
2007-2018 Statewide GHG Emissions (Million MTCO₂e)**

Scoping Plan Sector	Year											
	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18
Agriculture	35	35	33	34	34	36	34	35	33	33	32	33
Commercial/Residential	44	44	45	46	46	44	44	38	39	41	41	41
Electric Power	114	120	101	90	89	98	91	89	85	69	62	63
High GWP	11	12	12	14	15	16	17	18	19	19	20	21
Industrial	90	90	87	91	89	89	92	92	90	89	89	89
Recycling and Waste	8	8	9	9	9	9	9	9	9	9	9	9
Transportation	186	175	168	165	162	161	161	163	166	170	171	170
Total Million MTCO₂e^(A)	488	484	455	448	444	452	448	443	441	429	424	425



Source: CARB, 2020

(A) Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' IPCC's 4th Assessment Report.

As shown in Table 4.8-2, statewide GHG emissions have generally decreased over the last decade, with 2018 levels (425 million MTCO₂e) approximately 12 percent less than 2007 levels (488 million MTCO₂e) and below the State's 2020 reduction target of 431 million MTCO₂e. The transportation sector (170 million MTCO₂e) accounted for more than one-third (approximately 40.%) of the state's total GHG emissions inventory (425 million MTCO₂e) in 2018.

Existing Planning Area GHG Emissions

The existing land uses within the Planning Area contribute to existing city, regional, and statewide GHG emissions. The Planning Area's existing GHG emissions, presented below in Table 4.8-3 (Existing (2019) GHG Emissions in the Planning Area), were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. GHG emissions generated within the Planning Area primarily come from the area, energy, and mobile sources

¹ CARB approved use of 431 million MTCO₂e as the state's 2020 GHG emission target in May 2014. Previously, the target had been set at 427 million MTCO₂e.

described in Section 4.3.1, as well as the following additional sources specific to GHG emissions:

- **Energy use and consumption:** Emissions generated from purchased electricity and natural gas. As estimated using CalEEMod, the existing land uses in the Planning Area use and consume approximately 480,895 megawatt hours (MWh) of electricity per year and 1,446,349 million British Thermal Units (MMBtu) of natural gas per year.
- **Solid waste disposal:** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod estimates approximately 60,828 tons of solid waste are generated per year by the people working and living within the Planning Area.
- **Water/wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses within the Planning Area use approximately 7,494 million gallons of water per year.

The Planning Area's existing GHG emissions were estimated using default emissions assumptions provided by CalEEMod, with the Project-specific modifications described in Section 4.3.1 and below:

- **Mobile Sources.** CalEEMod does not estimate N₂O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:
 - N₂O emissions were estimated for the Project by comparing the ratio of CO₂ and N₂O emissions from the on-road vehicle sector contained in the State's most recent GHG inventory (CARB, 2020). In 2018, passenger car CO₂ and N₂O emissions estimates for the on-road transportation sector were 151.2 and 0.005 million metric tons, respectively (N₂O emissions are therefore equal to approximately 0.003% of CO₂ emissions for this sector).
- **Energy use and consumption:** In addition to natural gas usage, the existing land uses in the Planning Area would generate indirect GHG emissions from electricity use. Southern California Edison (SCE) provides electricity service in the City of Whittier. The CalEEMod default GHG intensity values for this electric service provider are from 2012 and do not represent existing and future reductions in GHG intensity that have been achieved under the State's Renewable Portfolio Standard (RPS, see Section 4.8.2). To account for this, CalEEMod default assumptions regarding energy use were adjusted as follows:
 - The SCE GHG intensity value was reduced based on an increase in renewable energy mix from 20 percent under estimated Year 2012 conditions (the CalEEMod default data year) to 32 percent under existing conditions (2019, based on 2017 available data from SCE). This adjustment reduced the estimated amount of CO₂ produced by the SCE energy mix from approximately 702 pounds/megawatt-hour (lbs/MWh) to 532 lbs/MWh (SCE, 2019).²
 - Electricity generation emission factors for CH₄ (0.033 lbs/MWh) and N₂O (0.004 lbs/MWh) were obtained from the U.S. EPA's EGRID database for year 2019, the last year for which data was available at the time this EIR was prepared (U.S. EPA, 2021).

² The City of Whittier joined the Clean Power Alliance in 2018 to provide wholesale electrical power to City residents and businesses. Service began in February 2019, with options for 36%, 50%, or 100% of power generated by renewable sources. This EIR does not take credit for any participation by City residents or businesses in the Clean Power Alliance.

The Planning Area’s existing GHG emissions are summarized in Table 4.8-3 (Existing (2019) GHG Emissions in the Planning Area) below. The emissions are shown for two scenarios:

- **Year 2019 (Current Conditions)**, which are based on Year 2019 vehicle fleet characteristics (e.g., vehicle type, age, emission rates), and represent the emissions levels that existed at the time the Notice of Preparation was released for this EIR.
- **Year 2040 (Future Conditions)**, which are based on Year 2040 vehicle fleet characteristics and RPS energy goals (60% renewable energy) and represent the projected emissions that existing land uses would generate in the future (assuming no increase in population or change in land uses). This scenario provides an estimate of how emissions would change in the Planning Area as a result of regulations that would reduce motor vehicle emissions in the future, and allows for distinguishing the potential change in emissions that would occur from the proposed change in land uses that would occur with implementation and buildout of the GPU in Year 2040, as opposed to a change in emissions that would occur from regulatory requirements that would be in place whether or not the GPU is adopted.

**Table 4.8-3
Existing Land Use GHG Emissions Estimates**

Source	GHG Emissions (Metric Tons / Year)			
	CO ₂	CH ₄	N ₂ O	Total MTCO _{2e}
Existing Land Use Operational Emissions in Year 2019 (Current Conditions)				
Area	10,199	15	0.3	10,683
Energy	193,224	9	2.3	194,122
Mobile	864,428	63	28.7	874,557
Waste	0	730	0.0	18,243
Water	22,165	148	3.6	26,948
Total Existing GHG ^(A)	1,090,016	965	34.9	1,124,553
Service Population (SP) ^(B)				174,866
Existing GHG Efficiency (MTCO _{2e} / SP)				6.4
Existing Land Use Operational Emissions in Year 2040 (Future Conditions)				
Area	10,199	15	0.3	10,682
Energy	110,022	9	2.3	110,921
Mobile	590,181	19	19.6	596,490
Waste	0	730	0.0	18,243
Water	6,273	148	3.6	11,055
Total Existing GHG ^(A)	716,676	921	25.8	747,392
Service Population (SP) ^(B)				174,866
Existing GHG Efficiency (MTCO _{2e} / SP)				4.3
Source: MIG, 2021 (see Appendix D)				
(A) Totals may not equal due to rounding.				
(B) Service Population is defined as the sum of the number of residents and number of jobs supported by the GPU (CAPCOA, 2010).				

NOP Comments

A letter from the **South Coast Air Quality Management District (SCAQMD)** provided historical information about the district and the types of issues that should be addressed in the General Plan EIR regarding air quality and greenhouse gases (GHGs). The SCAQMD requested information be provided on construction and operational emissions as well as mitigation for significant air pollutant emissions under CEQA. However, it must be remembered this is a programmatic document and it clearly references the need for site specific GHG studies when development is proposed in the future on specific sites. As outlined in CEQA, detailed assessments of those types of impacts as identified by SCAQMD will be evaluated at that time. The following sections evaluate the relevant GHG issues raised by the SCAQMD.

A letter from Mitchell M. Tsai, Attorney at Law, representing the **Southwest Regional Council of Carpenters (SRCC)** stated that local hire and skilled and trained workforce requirements can reduce environmental impacts by reducing the length of vendor trips, and greenhouse gas and air pollutant emissions and providing localized economic benefits. However, this is a programmatic CEQA document and it would be overly speculative and beyond the scope necessary to identify these kinds of “mitigation” for potential GHG impacts. The EIR clearly references the need for site specific GHG studies when specific development is proposed on specific sites in the future. As outlined in CEQA, detailed assessments of those types of impacts (and their potential project-specific mitigation) will be evaluated at that time.

4.8.2 – REGULATORY FRAMEWORK

International and Federal

International Regulation and the Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the “United Nations’ Framework Convention on Climate Change” agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG in the United States. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

Federal Regulation and the Clean Air Act

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere (CO₂, CH₄, N₂O, SF₆, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 MTCO₂e. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a “major” source required to obtain a permit pursuant to the “Clean Air Act’s Prevention of Significant Deterioration” or “Title V” operating permit programs. The U.S. EPA’s Greenhouse Gas Reporting Program requires facilities that emit 25,000 MTCO₂e or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decisionmakers.

The Current Administration

Former President Trump and the U.S. EPA during the time of the Trump administration stated their intent to halt various federal regulatory activities to reduce GHG emissions. President

Biden, who took office in January 2021, and his administration have begun to strengthen federal policy once again around GHG emissions on a national level. California and other states are still challenging some federal actions undertaken during the time of the Trump administration that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

The United States participates in the United Nations Framework Convention on Climate Change. While the United States signed the Kyoto Protocol, which would have required reductions in GHGs, Congress never ratified the protocol. The federal government chose voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science. In 2015, the Paris Agreement was adopted, which aims at keeping global temperature rise this century below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit temperature increase above an additional 1.5 degrees Celsius. The Agreement was signed by President Obama in April 2016, but the agreement does not contain enforcement provisions that would require U.S. Senate ratification. On November 4, 2019, Former President Trump formally began the process to leave the Paris Climate Agreement. In accordance with Article 28 of the Paris Agreement, that process was complete on November 4, 2020. As one of his first acts in the Oval Office, President Biden signed an executive order to have the United States rejoin the Paris Climate Agreement. At this time, there are no federal regulations or policies pertaining to GHG emissions that directly apply to the project.³

Federal Vehicle Standards

In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 percent to 23 percent over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two

³ Though the U.S. EPA announced the Clean Power Plan on August 3, 2015, which sets standards for power plants and customizes goals for states to cut their carbon pollution, the U.S. Supreme Court stayed implementation of the Plan on February 9, 2016, pending further judicial review.

program will apply to vehicles with model year 2018–2027 for certain trailers, and model years 2021–2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (U.S. EPA and NHTSA, 2016).

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule).

On September 27, 2019, the U.S. EPA and the NHTSA published the SAFE Vehicles Rule Part One: One National Program.” (84 Fed. Reg. 51,310 (Sept. 27, 2019.)) The Part One Rule revoked California’s authority to set its own greenhouse gas emissions standards and set zero emission vehicle mandates in California. As a result of the loss of the zero emission vehicles (ZEV) sales requirements in California, there may be fewer ZEVs sold and thus additional gasoline-fueled vehicles sold in future years (CARB 2019b).

In April 2020, the U.S. EPA and NHTSA issued the SAFE Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (Final SAFE Rule) that relaxed federal greenhouse gas emissions and fuel economy standards. The Final SAFE Rule relaxed federal greenhouse gas emissions and Corporate Average Fuel Economy (CAFE) standards to increase in stringency at approximately 1.5 percent per year from model year (MY) 2020 levels over MYs 2021–2026. The previously established emission standards and related “augural” fuel economy standards would have achieved approximately 4 percent per year improvements through MY 2025. The Final SAFE Rule affects both upstream (production and delivery) and downstream (tailpipe exhaust) CO₂ emissions (CARB, 2020) and has been challenged by 23 states. The litigation is ongoing.

State

Assembly Bill 32 (California Global Warming Solutions Act) and Related GHG Goals

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on statewide greenhouse gas emissions proclaimed in Executive Order (EO) S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target is December 31, 2020.

As part of AB 32, CARB determined 1990 GHG emissions levels and projected a “business-as-usual” (BAU)⁴ estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million MTCO₂e (CARB, 2007). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects 2020 statewide GHG emissions levels of 596 million MTCO₂e and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million MTCO₂e of GHG reductions and bring statewide GHG emissions to 1990 levels by 2020 (CARB, 2009).

EO B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.

⁴ BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, EO B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through EO B-30-15, Governor Brown signed SB 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, “protect the State’s most impacted and disadvantaged communities ...[and] consider the social costs of the emissions of greenhouse gases.”

Scoping Plan

The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Scoping Plan were to expand and strengthen energy efficiency programs, achieve a statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners (including seven states in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB, 2009). CARB estimated that implementation of these measures will achieve at least 174 million MTCO_{2e} of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB, 2009).

In a report prepared on September 23, 2010, CARB indicated 40 percent of the reduction measures identified in the Scoping Plan had been secured (CARB 2010). Although the cap-and-trade program began on January 1, 2012 (after CARB completed a series of activities dealing with the registration process, compliance cycle, and tracking system), covered entities did not have an emissions obligation until 2013. In August 2011, the Scoping Plan was reapproved by CARB with the program’s environmental documentation.

On February 10, 2014, CARB released the public draft of the “First Update to the Scoping Plan.” “The First Update” built upon the 2008 Scoping Plan with new strategies and recommendations, and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments (CARB 2014). “The First Update” defined CARB’s climate change priorities over the next five years, and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California’s progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. “The First Update” evaluated how to align the State’s long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. “The First Update” to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the 2017 Climate Change Scoping Plan update (CARB 2017), was adopted by CARB in December 2017. The primary objective for the 2017 Climate Change Scoping Plan is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030)

established under EO B-30-15 and SB 32. The 2017 Climate Change Scoping Plan identifies an increased need for coordination among State, regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the state could result in emissions reductions of up to 45 million MTCO_{2e} and 83 million MTCO_{2e} by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons per capita by 2050. The major elements of the 2017 Climate Change Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH₄ and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375 (Sustainable Communities and Climate Protection Act) and Connect SoCal

In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the Southern California Association of Governments (SCAG) region were eight percent by year 2020 and 13 percent by year 2035. In September 2010 and February 2011, the eight percent and the 13 percent targets were adopted, respectively.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future*. The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with

SB 375. The document contained a host of improvements to the region’s multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrated the region’s ability to attain and exceed the GHG emission-reduction targets set forth by the CARB, and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG’s Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS’s goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an 8 percent reduction in GHG emissions per capita by 2020, an 18 percent reduction by 2035, and a 21percent reduction by 2040 when compared with 2005 levels. These reductions meet or exceed the State’s mandate, which require an 8 percent reduction by 2020 and 13 percent by 2035.

In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018). The new SCAG targets are an 8 percent reduction in per capita passenger vehicle GHG reductions by 2020 and a 19percent reduction by 2035. On May 7, 2020, SCAG adopted “Connect SoCal”, the 2020-2045 RTP/SCS, for federal transportation conformity purposes only. On September 3, 2020, SCAG’s Regional Council unanimously voted to approve and fully adopt Connect SoCal, and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is designed to meet the regional GHG reduction targets for SCAG that were identified by CARB in 2018.

Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal contains 10 primary goals, as detailed below:

1. Encourage regional economic prosperity and global competitiveness.
2. Improve mobility, accessibility, reliability, and travel safety for people and goods.
3. Enhance the preservation, security, and resilience of the regional transportation system.
4. Increase person and goods movement and travel choices within the transportation system.
5. Reduce greenhouse gas emissions and improve air quality.
6. Support healthy and equitable communities.
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network.
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel.

9. Encourage development of diverse housing types in areas that are supported by multiple transportation options.
10. Promote conservation of natural and agricultural lands and restoration of habitats.

Connect SoCal’s “Core Vision” centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investment in transit and complete streets. The Core Vision includes: Sustainable Development, System Preservation and Resilience, Demand and System Management, Transit Backbone, Complete Streets, and Goods Movement.

From 2016 to 2045, Connect SoCal anticipates approximately 64 percent of household and 74 percent of new jobs will occur in Priority Growth Areas (PGAs). Connect SoCal’s PGAs – Job Centers, Transit Priority Areas (TPAs), High Quality Transit Areas (HQTAs),⁵ Neighborhood Mobility Areas (NMAs), Livable Corridors, and Spheres of Influences (SOIs) – account for only 4 percent of the region’s total land areas, but will accommodate the afore mentioned growth statistics. The City of Whittier does not currently contain an HQTA, but the section of Whittier Boulevard west of I-605 is considered an HQTA and it is possible the Metro extension along Washington Boulevard could result in a future HQTA designation in the City.

Senate Bill 350 (Clean Energy and Pollution Reduction Act) and Senate Bill 100

SB 350 was signed into Law in September 2015 and establishes tiered increases to the RPS. The Bill requires 40 percent of the state’s energy supply to come from renewable sources by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100, signed by Governor Brown on September 10, 2018, increased the RPS requirement for 2030 from 50 percent to 60 percent.

Assembly Bill 1493

With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and pro-active approach for dealing with GHG emissions and climate change at the state level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California’s related request for a waiver, a waiver was granted. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars (ACC) program (formerly known as Pavley II) for model years 2017 through 2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the ZEV regulation. The program combines the control of smog, soot, and GHGs and requirements for greater numbers of zero-emission vehicles into a single package of standards.

Executive Order B-30-15, Senate Bill 32 & Assembly Bill 197 (Statewide Interim GHG Targets)

California EO B-30-15 (April 29, 2015) set an “interim” statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030 and directed state agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons. AB

⁵ HQTAs are corridor-focused PGAs within half-a-mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick passengers up at a frequency of every 15 minutes (or less) during peak commuting hours.

197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-55-18

Governor Brown issued EO B-15-18 on September 10, 2018, which directs the State to achieve carbon neutrality as soon as possible and no later than 2045, and achieve and maintain net negative emissions thereafter.

Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California’s Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, became effective on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also propose several smaller improvements in energy efficiency.

Center for Biological Diversity v. California Department of Fish and Wildlife

In its decision in *Center for Biological Diversity v. California Dept. of Fish and Wildlife (Newhall)* 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a proposed project’s GHG emissions:

1. A calculation of emissions reductions compared to a BAU scenario based upon the emissions reductions in CARB’s Scoping Plan, including examination of the data to

determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.

2. A lead agency might assess consistency with AB 32's goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.
3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.
4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. SCAG encompasses the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial.

SCAG is designated as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency. Under SB 375, SCAG, as a designated MPO, is required to prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Information contained in Chapter 5: The Road to Greater Mobility and Sustainable Growth of the 2016 RTP/SCS forms the basis for the land use and transportation components of the Air Quality Management Plan (AQMP), and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP (SCAG, 2016).

4.8.3 – SIGNIFICANCE THRESHOLDS

The methodology used to evaluate potential environmental impacts is described above in Section 4.0 Introduction. Per the CEQA Guidelines, implementation of the Project would have a significant impact related to GHG emissions if it would:

- A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?
- C. Would the project cause substantial adverse cumulative impacts with respect to greenhouse gases?

In order to provide guidance to local lead agencies on determining the significance of GHG emissions in their CEQA documents, the SCAQMD convened the first GHG Significance Threshold Working Group (Working Group) meeting on April 30, 2008 (SCAQMD, 2008). To date, the Working Group has convened a total of 15 times, with the last meeting taking place on September 28, 2010 (SCAQMD, 2010). Based on the last Working Group meeting, the SCAQMD identified an interim, tiered approach for evaluating GHG emissions intent on capturing 90 percent of development projects where the SCAQMD is not the lead agency. The

following describes the basic structure of the SCAQMD’s tiered, interim GHG significance thresholds:

- A. Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.
- B. Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- C. Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:
 - a. 3,000 MTCO₂e/yr for all land use types; or
 - b. 3,500 MTCO₂e/yr for residential; 1,400 MTCO₂e/yr for commercial; 3,000 MTCO₂e/yr for mixed use projects.
- D. Tier 4 has three options for projects that exceed the screening values identified in Tier 3:
 - a. Option 1: Reduce emissions from business-as-usual by a certain percentage (currently undefined).
 - b. Option 2: Early implementation of applicable AB 32 Scoping Measures.
 - c. Option 3: For plan-level analyses, analyze a project’s emissions against an efficiency value of 6.6 MTCO₂e/yr/SP by 2020 and 4.1 MTCO₂e/yr/SP by 2035. For project-level analyses, analyze a project’s emissions against an efficiency value of 4.8 and 3.0 MTCO₂e/yr/SP for the 2020 and 2035 calendar years, respectively.

The GPU plans for growth through 2040, five years after the SCAQMD’s latest Tier 4 interim efficiency target year (2035) identified above. Therefore, to evaluate the Project’s GHG emissions against future GHG reduction goals, the plan-level efficiency target has been adjusted based on the GHG reduction targets of SB 32, which sets a target of 40 percent below 1990 levels by 2030, and Executive Order S-03-05, which sets a goal of 80 percent below levels by 2050. The resulting, interpolated efficiency target for the year 2040 is 2.6 MTCO₂e/yr/SP.⁶

4.8.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to GHG emissions and potential conflicts with a plan, policy, or regulation adopted for the purposes of reducing GHG emissions which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

GHG Emissions

⁶ To remain on track with future GHG reduction goals, it is necessary to identify the efficiency target for 2040. Pursuant to existing legislation, GHG emissions are required to be reduced to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050 – meaning a 40 percent reduction would need to occur between 2030 and 2050 compared to 1990 levels. 2040 is the halfway point between 2030 and 2050; thus, half the reductions that need to occur between 2030 and 2050 should be achieved by 2040 (i.e., GHG emissions should be 60 percent below 1990 levels by 2040). Using the efficiency metric for 2020, 6.6 MTCO₂e/yr/SP (the same efficiency as 1990 pursuant to AB 32 reduction requirements) and multiplying through by 40 percent (i.e., 60 percent below 1990 levels) results in a derived efficiency metric of 2.6 MTCO₂e/yr/SP for year 2040. The City is not applying or proposing to use 2.6 MTCO₂e/yr/SP as a CEQA GHG significance threshold for general use; rather, it is only intended for use on this Project.

Impact GHG-1 – Would the GPU generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Analysis of Impacts

GPU implementation would result in construction and operational activities that would generate GHG emissions. As described in more detail below, the GHG emissions generated by the growth envisioned under the GPU would exceed SCAQMD thresholds and result in a significant and unavoidable impact even with the inclusion of feasible mitigation measures.

As explained in more detail in Section 4.3, Air Quality, the planned growth envisioned by the GPU could result in an additional 7,494 dwelling units and 20,189 residents, as well as an additional 175,236 square feet of non-residential building square footage and 1,398 jobs, within the City by 2040. This growth would result in construction activities that would generate GHG emissions primarily from fuel combustion in equipment during demolition, site preparation, grading, building construction, paving, and architectural coating activities and in worker, vendor, and haul trips to and from future development projects. Construction activities would occur intermittently at different sites within the Planning Area over the next approximately 20 years. Generally, the SCAQMD recommends amortizing construction GHG emissions over a 30-year period since construction activities for a project typically only occur towards the start of a project and cease to emit GHG upon the completion of construction activities. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. As described under Impact AQ-2, there is uncertainty regarding the timing and methods of construction activities that would occur for future development projects. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the project is decommissioned. For reasons discussed in Impact AQ-2, construction emissions were not estimated for the proposed GPU.

The existing and proposed land uses envisioned by the GPU would result in operational GHG emissions, primarily from mobile, energy, and area sources. Mobile sources, including vehicle trips to and from land uses within the City, would result primarily in emissions of CO₂, with emissions of CH₄ and NO₂ also occurring in minor amounts. In addition to mobile sources, GHG emissions would also be generated from natural gas usage, electricity use, water conveyance and use, wastewater treatment, and solid waste disposal. Natural gas use would result in the emission of two GHGs: CH₄ (the major component of natural gas) and CO₂ (from the combustion of natural gas). Electricity use associated with both the physical usage of the development, as well as the energy needed to transport water/wastewater, would result in the production of GHGs if the electricity is generated through non-renewable sources (i.e., combustion of fossil fuels). Solid waste generated by land uses within the Planning Area would contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy when transporting and managing the waste. In addition, landfilling, the most common waste management practice, results in the release of CH₄ from the decomposition of organic materials.

Potential operational GHG emissions resulting from operation of the land uses proposed by the GPU were estimated using CalEEMod, Version 2016.3.2. The modeling assumes Project growth consistent with the land use development intensities described in Impact AQ-2. The modeling is based on default data assumptions contained in CalEEMod, with the project-specific modifications described under Impact AQ-2, as well as the following adjustments to default model assumptions:

- **Mobile Sources.** CalEEMod does not estimate N₂O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:
 - N₂O emissions were estimated for the GPU by comparing the ratio of CO₂ and N₂O emissions from the on-road vehicle sector contained in the State’s most recent GHG inventory (CARB, 2020). In 2018, statewide CO₂ and N₂O emissions estimates for the on-road transportation sector were 151.2 and 0.005 million metric tons, respectively (N₂O emissions are therefore equal to 0.003 percent of CO₂ emissions for this sector).
- **Energy Use and Consumption:** The GHG intensity value utilized in the modeling is based on an estimated SCE carbon emission factor that reflects SCE’s compliance with SB 100, which requires 60 percent of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2030.

The total unmitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 4.8-4 and compared against the potential GHG emissions that could exist in 2040 if the GPU were not approved.⁷ As described above, the SCAQMD recommends the use of an efficiency threshold for plan-level analysis in which potential emissions levels are considered in terms of how many GHG emissions would be produced by each resident and employee using a project’s facilities. Thus, the adjusted 2040 project-level efficiency target of 2.6 MTCO₂e/yr/SP is the primary contextual factor considered in evaluating the significance of the GPU’s GHG emissions changes.

**Table 4.8-4
Unmitigated GPU GHG Emissions**

Source	GHG Emissions (MTCO ₂ e / Year)		
	Existing Land Uses (2040) ^(A)	Proposed GPU Land Uses (2040)	Net Change
Area	10,682	12,708	2,026
Energy	110,921	96,440	-14,481
Mobile	596,490	635,939	39,449
Waste	18,243	19,539	1,296
Water	11,055	10,492	-563
Total ^(B)	747,392	775,119	27,727
Service Population (SP)	174,866	196,451	21,585

⁷ Although CEQA generally requires an evaluation of impacts associated with project implementation against the conditions that exist at the time the Notice of Preparation (NOP) is published, CEQA Guidelines Section 15125(a)(2) allows a lead agency to, “...use projected future conditions (beyond the date of project operations) baseline as the sole baseline for analysis only if it demonstrates with substantial evidence that use of existing conditions would be either misleading or without informative value to decision makers and the public.” Existing conditions GHG emissions for Year 2019 (current baseline conditions) and Year 2040 (future conditions) have been provided in Section 4.3.1. As shown in Table 4.8-4 and described in Section 4.3.1, the existing land uses within the Plan Area would benefit from regulatory actions at the State level (i.e., vehicle and fuel efficiency standards and cleaner electricity), which would continue to reduce emissions over the next approximately 20 years, even if the GPU is not approved or implemented. Therefore, to provide a conservative assessment of emissions associated with implementation of the proposed GPU, GHG emissions associated with operation of the existing land uses in 2040 are compared against those proposed under the GPU in 2040 to paint a more accurate picture of how the land uses proposed by the GPU could change emissions in the Planning Area. This provides a more conservative assessment of emissions because the emissions “gap” between existing land uses (future conditions 2040) and the GPU (2040) is less than that compared to existing land uses (current conditions 2019) and the GPU (2040).

MTCO ₂ e/yr/SP	4.3	3.9	-0.3
SCAQMD Tier 4 Adjusted 2040 Plan Level Efficiency Threshold	--	2.6	--
Exceeds Threshold?	--	Yes	--
Source: MIG, 2021 (see Appendix D). (A) See Table 4.8-3 for existing GHG emissions in the Planning Area. (B) Totals may not equal due to rounding.			

As shown above in Table 4.8-4, the Planning Area would emit approximately 775,119 MTCO₂e annually by 2040. Dividing through by the Planning Area's service population (196,451 residents and employees) results in an efficiency metric of 3.9 MTCO₂e/yr/SP for 2040. Although this GHG efficiency level does not meet the adjusted target for 2040 (2.6 MTCO₂e/yr/SP), it does show a appreciable reduction from existing and future baseline conditions (the GHG efficiency occurring under 2040 with the GPU would be approximately 39 percent less than existing 2019 conditions and 8 percent less than 2040 conditions without the GPU).

The primary source of GPU GHG emissions would be mobile sources, which represent approximately 82 percent of total annual GHG emissions occurring under 2040 growth conditions. The unmitigated mobile source emission estimates are conservative, since they do not take into account land use interactions (e.g., residential land use proximity to commercial land uses) and transit amenities (e.g., bus routes) that would likely reduce the number of vehicle trips generated in the Planning Area and the quantity of VMT occurring with the GPU in 2040. The next highest source of GPU GHG emissions would be energy sources, which would represent approximately 12 percent of total annual GHG emissions.

2021 General Plan Update. The City's proposed 2021 GPU Resource Management Element inventories and evaluates the existing natural resources within and around the City, including the lands, fossil fuels, water, wildlife, plants and trees, and air (City of Whittier, 2021). Access to parks, trails, open space, and recreational facilities promotes interconnectivity throughout the City via non-vehicular means, and improves health and air quality through exercise and the reduction of mobile source emissions, respectively. The following goals, policies, and programs contained in the Resource Management Element would be applicable to GHG emissions that would be generated in the Planning Area by the potential growth envisioned in the GPU.

Resource Management Element

Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

Policies

RM-3.1: Reduce emissions generated by motorized vehicles.

RM-3.2: Reduce energy use in municipal and construction operations.

RM-3.3: Support the use of energy-efficient design and renewable energy technologies in public and provide spaces and development projects.

RM-3.4: Prioritize compact and equitable development that supports walking and biking to nearby destinations.

RM-3.5: Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.

Goal 4: increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.2: Increase the City’s tree canopy.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar and reflective roofs).

Goal 6: A commitment to sustainability through progressive use of green building policies, practices, and technologies.

Policies

RM-6.1: Support energy efficiency through the Municipal Code and implementation of CALGreen standards.

RM-6.2: Incentivize energy-efficient retrofit improvements, including energy and water conservation in existing buildings.

Goal 7: Increased commitment to renewable energy sources.

Policies

RM-7.1: Support the efforts of energy suppliers to expand use of and access to non-fossil fuel-based energy sources such as geothermal, wind, and solar.

RM-7.2: Support efforts to develop small-scale, distributed energy (e.g., solar power, wind, cogeneration, and biomass) to reduce the amount of electricity drawn from the regional power grid, while providing Whittier with a greater degree of energy self-sufficiency.

Level of Significance Before Mitigation

As shown in Table 4.8-5, the GPU’s 2040 growth projection would result in GHG emissions that exceed the adjusted SCAQMD derived plan-level efficiency metric. This is considered a **potentially significant** impact.

Mitigation Measures

GHG-1 The 2019 CalGreen Code contains several voluntary measures that are not formally required. Within one year of adoption of the General Plan Update, the City shall adopt an ordinance that incorporates, requires and makes mandatory certain Calgreen Code voluntary measures as described below.

- a. Require new residential tentative tract maps that would allow 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.1 of the CalGreen Code, and that each dwelling be equipped with a vehicle charging station that has a similar or better functionality than a Level 2 charging station.
- b. Require new multifamily projects with 17 or more dwelling units to provide electric vehicle infrastructure for each dwelling in compliance with Section A4.106.8.2 of the CalGreen Code, and that each one of the parking spaces that has such electric

- vehicle infrastructure be equipped with vehicle charging stations that have a similar or better functionality than a Level 2 charging station.
- c. Require new non-residential development projects to provide designated parking for any combination of low-emitting, fuel efficient, and carpool/van pool vehicles pursuant to the Tier 2 requirements of Table A5.106.5.1.2 of the CalGreen Code. Such parking spaces shall be marked pursuant to Section A5.106.5.1.3 of the CalGreen Code.
 - d. Require new non-residential development projects to provide electric vehicle charging spaces with electric vehicle infrastructure in compliance with Table A5.106.5.3.2 of the California Green Code and be equipped with vehicle charging stations that have similar or better functionality than a Level 2 charging station. Such spaces shall be marked in compliance with Section A5.106.5.3.3 of the CalGreen Code.

GHG-2 Within two years of the adoption of the General Plan, The City shall consider and evaluate the feasibility of adopting an ordinance that amends the City’s Municipal Code to require all new residential and/or non-residential development subject to Title 24, Part 6 of the California Building Code to achieve Zero Net Energy (ZNE) standards. If the City finds ZNE technology, programs, and/or other strategies are feasible and cost-effective, the City shall adopt a ZNE ordinance as expeditiously as possible given City resources. As defined by the California Energy Commission (CEC), ZNE standards require the value of the net energy produced by project renewable energy resources equals the value of the energy consumed annually by the project, using the CEC’s Time Dependent Valuation (CEC, 2015).

Level of Significance After Mitigation

The GPU includes goals and policies that promote mixed-use developments, transportation demand strategies, expansion of transit service, and other actions that reduce transportation-related GHG emissions. The GPU also includes goals and policies that encourage sustainable and green development that reduce energy-related GHG emissions. Although the GPU contains numerous goals and policies that highlight the City’s intent to grow sustainably over the next couple decades, further actions are required to reduce GHG emissions. Accordingly, the City would implement Mitigation Measures AQ-2, GHG-1, GHG-2, and VMT-1, VMT-2, and VMT-3 to reduce the quantity of GHG emissions generated under implementation of the GPU.

Mitigation Measure GHG-1 would require the City to adopt an ordinance that amends the City’s Municipal Code to require new residential and non-residential entitlements to install electric vehicle (EV) charging stations. By requiring new entitlements for non-residential and residential developments consisting of 17 more dwelling units, the City would support and increase the likelihood, accessibility, and convenience of owning and operating an EV, which could increase the use of EVs in the Planning Area (thereby reducing the number of fossil-fuel powered vehicles on roadways in the Planning Area and associated GHG emissions generated from mobile sources).

Mitigation Measure GHG-2 would require the City to consider the feasibility of adopting an ordinance that would mandate all new residential and/or non-residential construction in the City meet ZNE standards, as feasible. Unlike imbedded GHG emissions associated with electricity consumption, which can be reduced by supplying the electricity grid with more electricity produced from carbon-free sources, it is difficult to directly reduce GHG emissions associated with natural gas consumption without restricting its use. Reaching ZNE in new development, therefore, could reduce GHG emissions from natural gas consumption.

In addition to Mitigation Measure GHG-1 and GHG-2, Mitigation Measure AQ-2 would prohibit the installation of natural gas hearths in new residential development, reducing GHG emissions from natural gas combustion in new residential development.

Finally, the TIA prepared by Fehr & Peers for the proposed GPU indicates that the proposed land uses in the GPU would result in a significant VMT impact if left unmitigated. Mitigation Measures VMT-1, VMT-2, and VMT-3 have been incorporated into the Project to reduce the magnitude of the VMT impact and consist of expanding the local transit network, improving the bicycle and pedestrian network as envisioned in the City's Bicycle Master Plan and General Plan, and promoting telecommuting and alternative work schedules. The TIA estimates these measures would reduce VMT/service population by approximately 4.5 percent.

The total mitigated GHG emissions estimated to occur under projected 2040 growth conditions are shown below in Table 4.8-5. The mitigated emissions estimates include emissions reductions associated with Mitigation Measures AQ-2 and VMT-1, VMT-2, and VMT-3. The estimates do not include reductions from Mitigation Measures GHG-1 and GHG-2 because there is insufficient information to quantify potential emissions reductions from Mitigation Measure GHG-1 at this time, and Mitigation Measure GHG-2 does not guarantee emissions reductions will occur.

**Table 4.8-5
Mitigated GPU GHG Emissions**

Source	GHG Emissions (MTCO ₂ e / Year)		
	Existing Land Uses (2040) ^(A)	Proposed GPU Land Uses (2040)	Net Change
Area	10,682	10,812	130
Energy	110,921	96,440	-14,481
Mobile	602,963	607,043	10,552
Waste	18,243	19,539	1,296
Water	11,055	10,492	-563
Total ^(B)	753,864	744,327	-3,065
Service Population (SP)	174,866	196,451	21,585
MTCO ₂ e/yr/SP	4.3	3.8	-0.5
SCAQMD Tier 4 Adjusted 2040 Plan Level Efficiency Threshold	--	2.6	--
Exceeds Threshold?	--	Yes	--
Source: MIG, 2021 (see Appendix D).			
(A) See Table 4.8-3 for existing GHG emissions in the Planning Area.			
(B) Totals may not equal due to rounding.			

As shown in Table 4.8-5, the mitigated GPU GHG emissions estimates would continue to exceed the adjusted SCAQMD derived plan-level efficiency metric. Although the implementation of Mitigation Measures AQ-2, GHG-1, GHG-2, and VMT-1, VMT-2, and VMT-3 would reduce the GHG emissions generated in the Planning Area, the Project's effect on GHG emissions

would remain significant and unavoidable for a number of reasons. First, it is unknown how many projects would be subject to Mitigation Measure GHG-1. Second, it is uncertain at this time if adopting the ZNE provisions in Mitigation Measure GHG-2 is feasible for the City. For example, with regard to adopting a ZNE ordinance, the CEC identified in its May 20, 2017 staff workshop on the 2019 building efficiency standards ZNE strategy that ZNE was not a cost-effective standard for the 2019 Title 24 Building Code update, because, as the electric grid becomes greener in the future, rooftop PVs will have diminished carbon reduction benefits. In order to achieve ZNE, the electrification of homes will have to be coupled with grid harmonization strategies, such as consumer owned storage. As of the CEC's workshop in 2017, customer owned storage was still too expensive to be cost effective for the 2019 Title 24 standards (CEC 2017). In addition, banning natural gas as an energy source may be precluded under Federal law.⁸ Since the GHG emissions reductions attributable to Mitigation Measures GHG-1 and GHG-2 cannot be definitively assessed at this time, and since the GHG emissions reductions associated with Mitigation Measure AQ-2 and VMT-1, VMT-2, and VMT-3 do not meet the interpolated SCAQMD efficiency metric of 2.6 MTCO₂e/yr/SP, this impact would be **significant and unavoidable**.

Applicable Plan, Policy, or Regulation

Impact GHG-2 – The proposed GPU would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.

Analysis of Impacts

CARB Scoping Plan

As discussed under Section 4.8.2, the 2017 Climate Change Scoping Plan is CARB's primary document used to ensure State GHG reduction goals are met. The plan identifies an increasing need for coordination among State, regional, and local governments to achieve the GHG emissions reductions that can be gained from local land use planning and decisions. The major elements of the 2017 Climate Change Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal, are listed in Section 4.8.2. Nearly all of the specific measures identified in the 2017 Climate Change Scoping Plan would be implemented at the state level, with CARB and/or another state or regional agency having the primary responsibility for achieving required GHG reductions. The Project, therefore, would have limited ability to directly conflict with any of the specific measures identified in the 2017 Climate Change Scoping Plan. Nonetheless, the overarching goal of the 2017 Climate Change Scoping Plan is to achieve a 40 percent reduction in GHG emissions below 1990 levels by the Year 2030. To achieve this statewide goal, the 2017 Climate Change Scoping Plan recommends a statewide efficiency metric of six metric tons per capita by 2030 and two metric tons per capita by 2050. These statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State. Under an unmitigated scenario, implementation of the proposed GPU is estimated to result in a GHG emission efficiency of 4.8 MTCO₂e per capita; with mitigation, the proposed GPU is estimated to result in a GHG emission efficiency of 4.6 MTCO₂e per capita.⁹ Project growth would result in emissions that exceed the 2017 Climate

⁸ The City of Berkeley, the first city in the nation to ban natural gas in new development, is currently being sued by the California Restaurant Association for adopting such an ordinance. The lawsuit alleges, "Prohibiting natural gas cooking ranges, water heaters, fireplaces, space heaters, and backup electrical generation is fundamentally inconsistent with the public interest, and is a violation of both federal and state law."

⁹ As shown in Table 4.8-4, the proposed GPU is estimated to have an emissions level of approximately 775,119 MTCO₂e in the Year 2040 under unmitigated conditions. Dividing through by the anticipated Planning Area population in the Year 2040 (i.e., 161,291 people) results in an efficiency metric of approximately 4.8 MTCO₂e per capita. As shown in Table 4.8-5, the proposed GPU is estimated to have an emissions level of approximately 744,327 MTCO₂e in the Year 2040 under mitigated conditions.

Change Scoping Plan adjusted statewide 2040 metric of four MTCO₂e per capita employed for this EIR.¹⁰ To meet the interpolated CARB Scoping Plan efficiency target of four MTCO₂e per capita, the City would need to further reduce its GPU Year 2040 GHG emissions presented in Table 4.8-5 by approximately 105,750 MTCO₂e.

SCAG 2020 RTP/SCS

The primary goal of SCAG's 2020-2045 RTP/SCS is to reduce GHG emissions from automobiles and light trucks by 19% per capita by 2035. Table 4.8-6 (Transportation GHG Emissions and VMT Per Capita), below, compares the existing 2019 and 2040 VMT and transportation-related GHG emissions per capita in the Planning Area.

**Table 4.8-6
Transportation GHG Emissions and VMT Per Capita**

Metric	2019	2040 Growth	Percent Change
GPU Unmitigated VMT and Transportation GHG			
Population	141,102	161,291	+14%
Annual VMT	1,991,622,809	2,042,308,058	+3%
Annual VMT per capita	14,115	12,662	-10%
Transportation GHG	874,557	635,939	+16%
Transportation GHG per capita	6.2	3.9	-36%
GPU Mitigated VMT and Transportation GHG			
Population	141,102	161,291	+14%
Annual VMT ^(A)	1,991,622,809	1,944,852,672	-2%
Annual VMT per capita	14,115	12,058	-15%
Transportation GHG	874,557	607,043	+16%
Transportation GHG per capita	6.2	3.8	-39%
Source: Fehr and Peers, 2021 and MIG, 2021 (see Appendix D)			

As shown in Table 4.8-6, under unmitigated 2040 conditions, the proposed GPU would result in an approximately 10 percent reduction in VMT per capita and an approximately 36 percent reduction in transportation GHG per capita, as compared to 2019 conditions. Year 2005 conditions are not known, but are presumed to have a higher (i.e., less efficient) per capita consumption value than 2019 conditions. Under mitigated 2040 conditions, the proposed GPU would result in an approximately 15 percent reduction in VMT per capita and an approximately 39 percent reduction in transportation GHG per capita, as compared to 2019 conditions.

Although the GPU would result in a per capita transportation GHG emission reduction that would exceed the 2040 goal identified by CARB (21 percent reduction in transportation GHG emissions per capita as compared to 2005 conditions), the GPU would be inconsistent with the SCAG 2020 RTP/SCS because the growth envisioned in the GPU exceeds the growth

Dividing through by the anticipated Planning Area population in the Year 2040 (i.e., 161,291 people) results in an efficiency metric of approximately 4.6 MTCO₂e per capita

¹⁰ The GPU plans for growth through Year 2040. Therefore, the 2040 statewide efficiency metric is linearly derived from the State's 2030 (6 MTCO₂e per capita) and 2050 (2 MTCO₂e per capita) targets.

envisioned in the SCAG 2020 RTP/SCS. As shown in Table 4.3-6 of the Air Quality Section, the GPU's growth far exceeds the population growth assumptions contained in the SCAG 2016 RTP/SCS. The GPU's increase in population (approximately 20,190 people) in the Planning Area by 2040 also exceeds the 2020 RTP/SCS population growth assumptions for the City (+11,800 people from 2016 to 2045); however, the GPU's increase in employment in Planning Area (approximately 1,400 workers) is within the 2020 RTP/SCS employment growth assumption (+3,000 workers from 2016 to 2045).

Since the growth envisioned in the GPU is inconsistent with the conditions under which the SCAG 2020 RTP/SCS was developed, the additional, transportation-related GHG emissions generated as a result of GPU implementation could exceed that considered during development of the SCAG 2020 RTP/SCS. As such, the overall, per capita transportation GHG emission reductions that would need to be achieved by the GPU would have to far exceed those originally identified for the region by CARB (i.e., more growth in the GPU means more emissions, therefore a greater reduction would have to occur in the city for the per capita transportation GHG emissions to meet the same mass emissions benchmark).

2021 General Plan Update. The City's proposed 2021 GPU Resource Management Element inventories and evaluates the existing natural resources within and around the City, including the lands, fossil fuels, water, wildlife, plants and trees, and air (City of Whittier, 2021). Access to parks, trails, open space, and recreational facilities promotes interconnectivity throughout the City via non-vehicular means, and improves health and air quality through exercise and the reduction of mobile source emissions, respectively. The following goals, policies, and programs contained in the Resource Management Element would be applicable to GHG emissions that would be generated in the Planning Area by the potential growth envisioned in the GPU.

Resource Management Element

Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

Policies

RM-3.1: Reduce emissions generated by motorized vehicles.

RM-3.2: Reduce energy use in municipal and construction operations.

RM-3.3: Support the use of energy-efficient design and renewable energy technologies in public and provide spaces and development projects.

RM-3.4: Prioritize compact and equitable development that supports walking and biking to nearby destinations.

RM-3.5: Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.

Goal 4: increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Policies

RM-4.2: Increase the City's tree canopy.

RM-4.4: Mitigate urban heat island effect by incentivizing “green” technologies as part of the community benefits program (i.e., cool pavements, green roofs, solar and reflective roofs).

Goal 6: A commitment to sustainability through progressive use of green building policies, practices, and technologies.

Policies

RM-6.1: Support energy efficiency through the Municipal Code and implementation of CALGreen standards.

RM-6.2: Incentivize energy-efficient retrofit improvements, including energy and water conservation in existing buildings.

Goal 7: Increased commitment to renewable energy sources.

Policies

RM-7.1: Support the efforts of energy suppliers to expand use of and access to non-fossil fuel-based energy sources such as geothermal, wind, and solar.

RM-7.2: Support efforts to develop small-scale, distributed energy (e.g., solar power, wind, cogeneration, and biomass) to reduce the amount of electricity drawn from the regional power grid, while providing Whittier with a greater degree of energy self-sufficiency.

Level of Significance Before Mitigation

As discussed above the GPU’s unmitigated GHG emissions would: 1) not be consistent with the CARB Scoping Plan’s interpolated per capita GHG efficiency metric. This is considered a **potentially significant** impact.

The GPU’s potential increase in population growth (approximately 20,190 people) is approximately 1.7 times more than the assumed growth in the 2020 RTP/SCS (11,800 people), while the reduction in unmitigated transportation GHG per capita (36percent) is approximately 1.9 times more than CARB’s target set for the SCAG region (19percent reduction in transportation GHG per capita), while mitigated transportation GHG per capita (39percent) is more than double the regional target. This indicates that although the GPU may result in growth that exceeds the 2020 RTP/SCS assumptions, transportation GHG per capita is likely to be in-line with regional emission reduction requirements and not significantly conflict with the 2020 RTP/SCS. In addition, the GPU includes goals and policies that are consistent with and supportive of the land use and transportation strategies identified by SCAG in the 2020 RTP/SCS that will achieve transportation GHG emissions reductions set by CARB. For example, the GPU Land Use and Community Character element sets goals for complete neighborhoods and streets, mixed-use and transit-oriented districts, and inclusive and equitable communities. In addition, the GPU Mobility and Infrastructure Element includes goals for multi-modal transportation systems, establishment of a city-wide pedestrian and bicycle network, access to and travel via transit, a VMT reductions (15percent reduction consistent with State performance metrics), managed parking supply, and autonomous vehicle readiness. Furthermore, Mitigation Measure GHG-1 would support transition to EV use in the City and SCAG region. Since transportation GHG per capita under the GPU would not conflict with 2020 RTP/SCS targets, and since the GPU includes goals and policies that are consistent with and supportive of the RTP’s land use and transportation strategies, the proposed GPU would not conflict with the 2020 RTP/SCS. This impact is considered less than significant.

Mitigation Measures

See Mitigation Measures AQ-2, GHG-1, GHG-2, and VMT-1, VMT-2, and VMT-3

Level of Significance After Mitigation

As discussed under Impact GHG-1 the proposed Project would be required to implement Mitigation Measures AQ-2, GHG-1, GHG-2, and VMT-1, VMT-2, and VMT-3, which would reduce GHG emissions in the city. However, these measures do not reduce GHG emissions to levels that meet the interpolated GHG emissions efficiency metric of four MTCO₂e per capita associated with the CARB 2017 Scoping Plan. Therefore, the GPU would conflict with the overarching goal of the CARB Scoping Plan, which is designed to achieve the State's 2030 GHG reduction goal and set the State's course for meeting additional, future GHG emission reduction goals. This impact would be **significant and unavoidable**.

Cumulative Impacts

Impact GHG-3 – Would the GPU cause substantial adverse cumulative impacts with respect to greenhouse gases?

Analysis of Impacts

As stated in Section 4.8.4, global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable. As described under Impact GHG-1 and GHG-2, the Project would result in GHG emissions that exceed the significance thresholds applied in this EIR and conflict with the 2017 Climate Change Scoping Plan.

Level of Significance Before Mitigation

Potentially Significant.

Mitigation Measures

See Mitigation Measures AQ-2, GHG-1, GHG-2, and VMT-1, VMT-2, and VMT-3.

Level of Significance After Mitigation

Significant and Unavoidable.

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List of Acronyms, Abbreviations, and Symbols	
Acronym, Symbol, Abbreviation	Description
AB	Assembly Bill
ACC	Advanced Clean Cars
BAU	Business-As-Usual
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CFC	Chlorofluorocarbon
C _H 4	Methane

List of Acronyms, Abbreviations, and Symbols	
Acronym, Symbol, Abbreviation	Description
CNRA	California Natural Resources Agency
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
EIR	Environmental Impact Report
EO	Executive Order
EV	Electric Vehicle
GHG	Greenhouse Gases
GPU	General Plan Update
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
HQTA	High Quality Transit Area
IAQ	Indoor Air Quality
LCFS	Low Carbon Fuel Standard
LEV	Low-Emission Vehicle
NMA	Neighborhood Mobility Area
MMBTU	Million British Thermal Units
MPO	Metropolitan Planning Organization
MTCO ₂ e	metric tons of CO ₂ equivalents
MWh	Megawatt-hours
N ₂ O	Nitrous Oxide
PGA	Priority Growth Area
PFC	Perfluorocarbon
ppm	parts per million
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SF ₆	Sulfur Hexafluoride
SOI	Sphere of Influence
SP	Service Population
TDM	Transportation Demand Management
TPA	Transit Priority Area
TTPS	Transportation Project Prioritization Study
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Travelled

List of Acronyms, Abbreviations, and Symbols	
Acronym, Symbol, Abbreviation	Description
Working Group	SCAQMD GHG Significance Threshold Working Group
ZEV	Zero Emission Vehicle
ZNE	Zero Net Energy
°F	Degrees Fahrenheit
%	Percent

4.9 – Hazards and Hazardous Materials

This EIR chapter addresses hazards and hazardous materials impacts associated with the proposed General Plan Update (GPU), including impacts for transport, use, or disposal of hazardous material, upset and accident conditions, hazardous emissions or materials near schools, hazardous materials sites within the planning area exposure to excessive airport noise, interference with an adopted emergency response plan or evacuation plan, and risk from wildfire.

4.9.1 – ENVIRONMENTAL SETTING

Hazardous Materials

Many common service facilities produce hazardous waste such as gasoline stations and dry cleaners. The California Environmental Protection Agency’s (EPA’s) Toxic Release Inventory Program manages a database of facilities that emit toxic chemicals known to be harmful to human health and tracks hazardous waste transporters. The State of California categorizes hazardous waste generators as either Small Quantity Generators (SQG) or Large Quantity Generators (LQG). SQGs in the Planning Area produce 220 pounds to 2,200 pounds of hazardous waste per month, while LQGs in the Planning Area produce more than 2,200 pounds of waste per month. In addition, hazardous waste can be transported by air, rail, highway, or water (Whittier, 2017). As shown in Table 4.9-1 and Exhibit 4.9-1 (Hazardous Waste Generators), there are a total of 171 hazardous waste generators located within the Planning Area. Twenty-two of the LQG facilities shown in Table 4.9-1 and Exhibit 4.9-1 have been identified by the EPA as contributing to the pollution of the air, water, and land. The majority of LQGs in the Planning Area are manufacturing facilities located west of Painter Avenue. As a result, the neighborhoods in the western portion of the Planning Area may be exposed to more pollution and hazardous materials than other parts of the Planning Area.

**Table 4.9-1
Hazardous Waste Generators**

Generator Type	Planning Area	
	City	SOI
Large Quantity Generator (LQG)	15	7
Small Quantity Generator (SQG)	115	18
Conditionally Exempt SQG	4	0
Transporter	9	3
Transfer	0	0
Total	143	28

Source: *Whittier Envision Existing Conditions Atlas*, 2017.

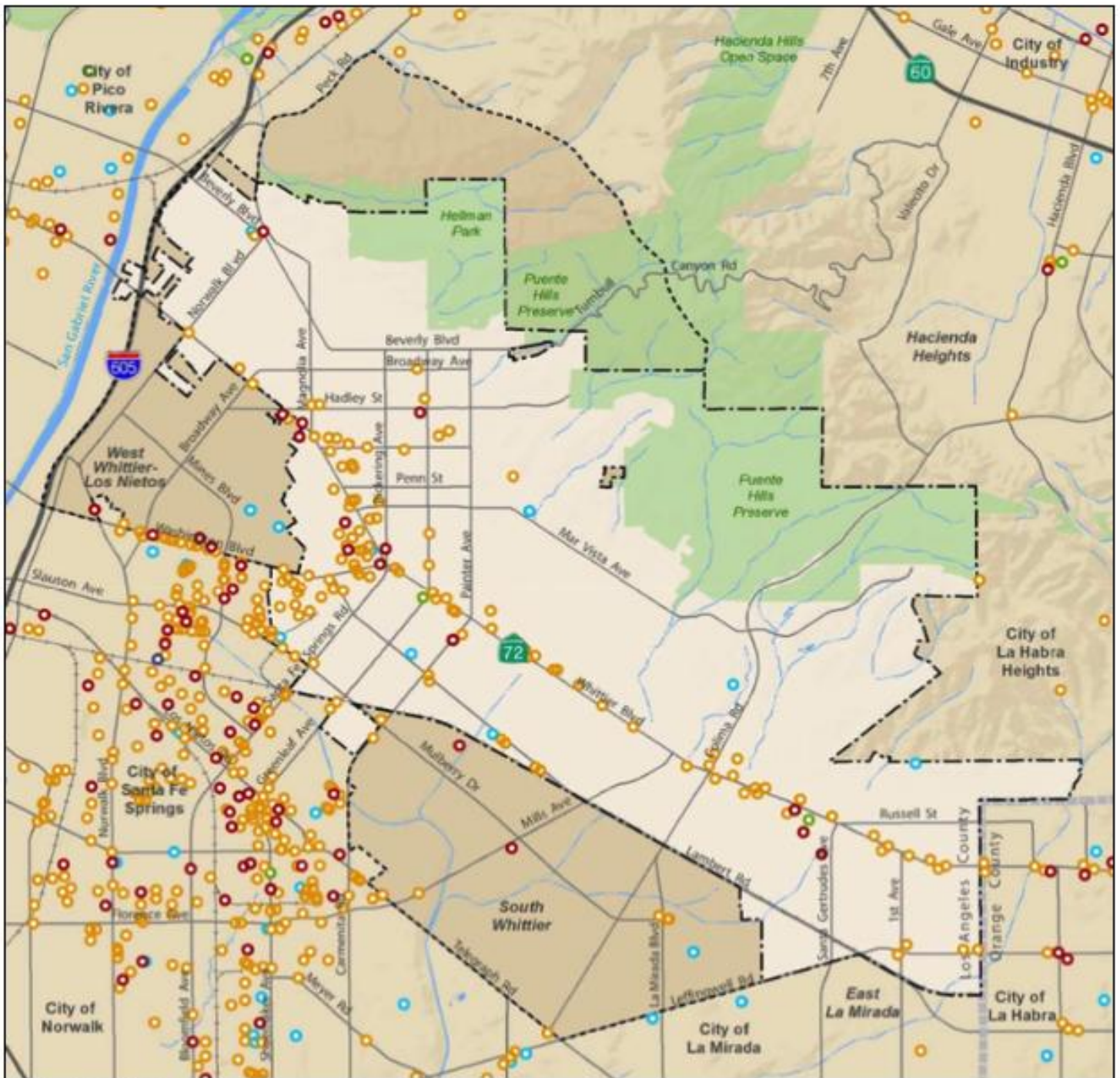
Active and open hazardous materials sites within the Planning Area are shown in Exhibit 4.9-2 (Hazardous Materials Contamination Sites) and summarized in Table 4.9-2. Table 4.9-2 includes information from the Department of Toxic Substance Control EnviroStor database (Department of Toxic Substances Control, 2020) which is a data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites. In addition, the California State Water Resources Control Board’s (SWRCB) Geotracker database (CSWRCB, 2020) is a data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater. The U.S. Environmental Protection Agency Superfund Enterprise Management System database

(US EPA, 2020) was also accessed for land within the Planning Area. According to these sources, there is one active Superfund site, 6 open Cleanup Program sites, 7 active Voluntary Cleanup sites, and 9 open Leaking Underground Storage Tank (LUST) Cleanup sites within the Planning Area. There is also a land disposal site, the Savage Canyon Landfill, that is currently operating within the Planning Area. There are another 88 LUST Cleanup sites in the Planning Area that are closed or completed. A designation of “open” status indicates that there is an ongoing case that has been opened by a regulatory agency and the site is undergoing assessment, remediation or site monitoring. A “closed” status indicates that a regulatory agency has determined that no further remediation activities are required. Voluntary Cleanup sites are designated as either “active” or “inactive”.

**Table 4.9-2
Hazardous Materials Contamination Sites**

Facility Name	Address	Type of Case	Clean-Up Status
Omega Chemical Corp.	12504 Whittier Blvd.	Federal Superfund	Active
Leggett and Platt Facility	12352 E. Whittier Blvd.	Cleanup Program Site	Open – Assessment and Interim Remedial Action
True Trace	2520 Pacific Park Dr.	Cleanup Program Site	Open – Inactive
Unitog Rental Services	2829 S. Workman Mill Rd.	Cleanup Program Site	Open – Inactive
Alltel Supply	2525 S. Workman Mill Rd.	Cleanup Program Site	Open – Inactive
New England Lead. Co.	12511 E. Putman St.	Cleanup Program Site	Open – Inactive
Omega Recovery Facility	12504 Whittier Blvd.	Cleanup Program Site	Open – Inactive
Whittier Greenway Trail Extension	Leffingwell Creek Crossing	Voluntary Cleanup Site	Active
UPRR Site Adjacent to Greenway Trail	Leffingwell Creek Crossing	Voluntary Cleanup Site	Active
SCE-Friendly Hills	9826 Colima Rd.	Voluntary Cleanup Site	Active
SLF-Five Points Whittier	8016 Santa Fe Springs Rd.	Voluntary Cleanup Site	Active
12363 Whittier Blvd. Property	12363 Whittier Blvd.	Voluntary Cleanup Site	Active
Sunrise Properties	12353 Whittier Blvd.	Voluntary Cleanup Site	Active
Former Fred C. Nelles Youth Facility	11850 Whittier Blvd.	Voluntary Cleanup Site	Active
Tosco – 76 Station #3123 (Former)	12823 E. Hadley St.	LUST Cleanup Site	Open – Site Assessment
76 Products Station #4362	13709 E. Whittier Blvd.	LUST Cleanup Site	Open – Eligible for Closure
G & M Oil #23	12911 E. Whittier Blvd	LUST Cleanup Site	Open – Assessment and Interim Remedial Action
USA Gasoline Corp. #231 (Former)	13940 E. Lambert Rd.	LUST Cleanup Site	Open – Remediation
Circle K #2211211 / Mobil Oil #18-E50 (Former)	8441 S. Pioneer Blvd.	LUST Cleanup Site	Open – Remediation
Whittier Arco	10802 E. Whittier Blvd.	LUST Cleanup Site	Open – Verification Monitoring
76 Station #4606	8803 S. Painter Ave.	LUST Cleanup Site	Open – Assessment and Interim Remedial Action
Mobil Oil Corp. S/S #18-E75 (Former)	10737 Beverly Blvd.	LUST Cleanup Site	Open – Eligible for Closure
The Gloves	11850 Whittier Blvd.	LUST Cleanup Site	Open – Site Assessment
Savage Canyon Landfill	13919 Penn St.	Land Disposal Site	Open – Operating

Source: Department of Toxic Substances Control, *EnviroStor*, California State Water Resources Control Board, *GeoTracker*; US Environmental Protection Agency, *Superfund Enterprise Management System Database*, (accessed July 2020).



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Hazardous Waste

- Large Quantity Generator (LQG)
- Small Quantity Generator (SQG)
- Conditionally Exempt SQG (CESQG)
- Hazardous Waste Transporter
- Transfer Facility



LQG: A business that generates more than 2,200 lbs per month of hazardous waste

SQG: A business that generates more than 220 lbs but less than 2,200 lbs of hazardous waste per month

CESQG: A business that generates less than 220 lbs of hazardous waste per month

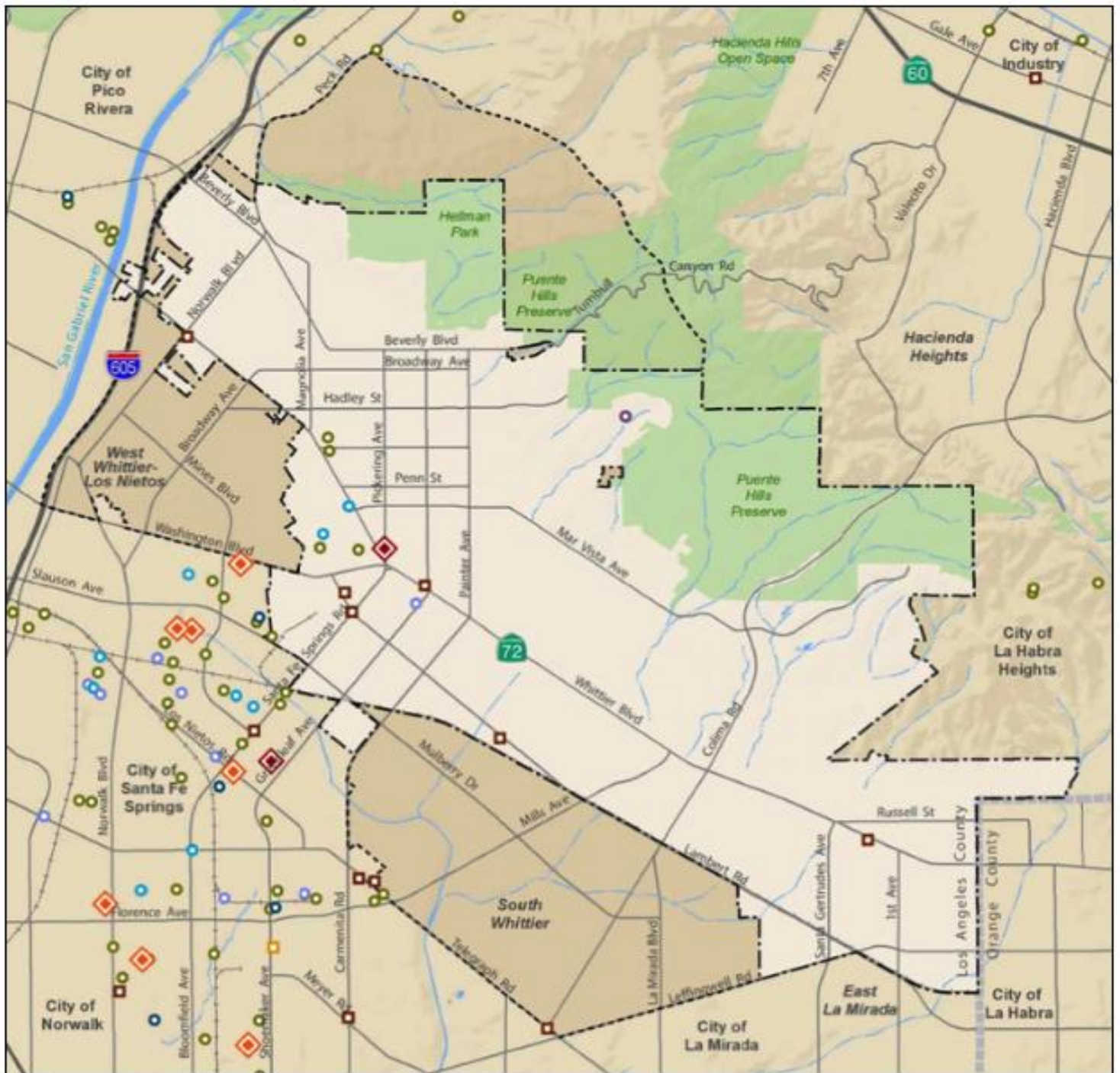
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Exhibit 4.9-1 Hazardous Waste Generators

Whittier General Plan Update
Whittier, California



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Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Superfund Sites

- ◆ Superfund (National Priority List - NPL)
- ◆ Superfund (Non-NPL)

Water Pollutant Discharge Site

- ICIS-NPDES Major
- NPDES Permit
- Leaking Underground Storage Tank
- Storm Water Industrial



Air Pollutant Discharge Site

- Air Major (More than 100 tons/year)
- Air Minor (Less than 100 tons/year)
- Greenhouse Gas Reporter
- Hazardous Air Pollutant Major
- Landfill Gas Recovery
- Pesticide Producer

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Exhibit 4.9-2 Hazardous Materials Contamination Sites

Whittier General Plan Update

Whittier, California

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Airport Hazards

The El Monte Airport is located approximately 6.9 miles north of the center of the Planning Area and Fullerton Airport is located approximately 8.5 miles southeast of the Planning Area. The GPU area does not fall within the Planning Boundary/Airport Influence Area for either airport (Department of Regional Planning, 2004).

Wildfire Hazards

Generally, the greatest potential for wildfire hazards occurs in areas adjacent to abundant natural vegetation. While the Puente Hills frame the City’s picturesque backdrop, they also create an urban wildfire hazard or risk. In addition to the urban fire potential, wildfires in the hills are an ever-present threat especially when fueled by shrub overgrowth, occasional Santa Ana winds, and high temperatures. In the past 13 years, two notable fires have occurred within the Planning Area boundaries, and seven others have been documented in the Puente Hills since 1967. Several of the foothill and hillside neighborhoods, along with other communities located in Puente Hills, are designated “Very High Fire Hazard Severity” (VHFS) Zones by Los Angeles County. Developments within the zone are subject to the County’s fuel modification plans. The Los Angeles County Fire Department provides firefighting services to Whittier’s portion of the Local Responsibility Area (LRA) and reviews and approves fuel modification plans (Whittier, 2017 & DFFP, 2020).

NOP Comments

The Los Angeles County Fire Department commented on development restrictions in Very High Fire Hazard Severity Zones relative to wildfires. No other comments were received relative to hazards or hazardous materials.

4.9.2 – REGULATORY FRAMEWORK

Federal

U.S. Environmental Protection Agency (EPA)

Regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA, see below) and integrating the Federal Clean Water Act and Clean Air Act into California Legislation.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

Adopted in 1980, CERCLA was developed to remove contamination of water, air, and land resources from past chemical disposal practices. Also known as the “Superfund Act,” CERCLA contains a list of sites referred to as Superfund sites, where there is an imminent threat to human health. CERCLA collects taxes from the chemical and petroleum industries to clean abandoned or uncontrolled hazardous sites using short term and long-term responses techniques.

The Resources Conservation and Recovery Act (RCRA)

Federal law that regulates hazardous wastes from a ‘cradle-to-grave’ approach, meaning that all hazardous wastes are tracked and strictly regulated from generation to disposal, and waste generators are required to report use or transport of hazardous wastes to the EPA. Hazardous waste generators range from small producers such as dry cleaners and automobile repair facilities to larger producers such as hospitals and manufacturing operations. The EPA categorizes Small Quantity Generators (SQG) as those facilities that produce between 220.5

and 2,205 pounds (i.e., 100 and 1,000 kilograms) of hazardous waste per month. Facilities producing less than 220.5 pounds of hazardous waste per month are not subject to RCRA. Large Quantity Generators (LQG) produce 2,205 pounds or more hazardous waste per month. LQG and SQG facilities are subject to the storage and transportation requirements of RCRA.

The Federal Emergency Planning and Community Right-To-Know Act (EPCRA)

Enacted to inform communities and residents of chemical hazards in their area, this Act requires the US EPA maintain and publish a list of toxic chemical releases, known as the Toxic Release Inventory (TRI). Facilities required to report include industrial uses that manufacture, process, or use significant amounts of chemicals. Reporting includes types and amounts of chemicals that are released each year into the air, water, and land or transferred off-site. Listing as a TRI facility doesn't necessarily mean that releases are harmful to humans or the environment.

Federal Occupational Safety and Health Administration (OSHA)

Establishes and enforces Federal regulations related to health and safety of workers exposed to toxic and hazardous materials. OSHA also sets health and safety guidelines for construction activities and manufacturing facility operations.

U.S. Department of Transportation (DOT)

Regulates the shipment of hazardous material. DOT also administers the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify conflicting state, local, and federal regulations. HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous (along with EPA) when they pose unreasonable risks to health, safety, or property.

Standardized Emergency Management System and National Incident Management System (SEMS)

According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs, the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander.

State

California Occupational Safety and Health Administration (CalOSHA)

Responsible for promulgating and enforcing State health and safety standards and implementing Federal OSHA Laws. For example, CalOSHA's regulatory scope includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

California Environmental Protection Agency (Cal EPA)

The Cal EPA implements and enforces a statewide hazardous materials program known as the Certified Unified Program Agency (CUPA) established by Senate Bill 1802 to enable counties and local government to enforce the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

CUPAs are accountable for carrying out responsibilities previously handled by approximately 1,300 different state and local agencies.

CalEPA Office of Emergency Services (CalEPA/OES)

Cal/EPA establishes regulations governing the use of hazardous materials in the State to protect air, water, and soil. OES coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies.

CALFIRE, Office of the State Fire Marshal (CAL FIRE-OSFM)

The Office of the State Fire Marshal evaluates and provides technical assistance for the Hazardous Material Management Plan (HMMP), the Hazardous Materials Inventory Statement (HMIS) and the Aboveground Petroleum Storage Act (APSA) Programs. The HMMP and HMIS Program are closely tied to the Business Plan Program.

California Fire Code

The City of Whittier has adopted the 2019 California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains, specifications for exterior materials and construction methods for structures located in the wildland-urban interface (WUI). These regulations pertain to any new building located within a Local Agency 'Very High Fire Hazard Severity Zone' or within a State Responsible 'Moderate', 'High', or 'Very High Fire Hazard Severity Zone'.

California Hazardous Waste Control Law

The California Hazardous Waste Control Law is administered by the California EPA to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than RCRA, until the federal EPA approves the California Hazardous Waste Control Program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills. The California Code of Regulations (CCR) 22 CCR Section 66261.10 provides that waste has "hazardous" characteristics if it has the following effects: [a](1) a waste that exhibits the characteristics may:

(A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed or otherwise managed.

According to 22 CCR (Article 11, Chapter 3), substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, contaminated, or are being stored prior to proper disposal. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric (battery) acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which reacts violently with water) may cause explosions or generate gases or fumes.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as “mixed wastes.” Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents, such as bacteria or viruses (22 CCR 66251.1 et seq.).

California Department of Toxic Substances Control (DTSC)

DTSC regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns the public that could potentially be exposed to listed carcinogens. DTSC evaluates and provides technical assistance for the Hazardous Waste Generator Program, including Onsite Treatment (Tiered Permitting) and the Resource Conservation Recovery Act (RCRA). In addition, EnviroStor is DTSC’s data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. There are no open investigations in the Planning Area (DTSC EnviroStor).

Underground Tank Regulations

Title 23, Division 3, Chapter 16 (Underground Tank Regulations) of the California Code of Regulations identifies the regulations applicable to new and existing underground storage tanks. These regulations establish monitoring, maintenance, reporting, abatement, and closure procedures for all underground storage tanks in the state. These regulations are administered by the Los Angeles Regional Water Quality Control Board.

California Highway Patrol (CHP)

The CHP has primary regulatory responsibility for the transportation of hazardous wastes and materials.

Cortese List

California Government Code Section 65962.5 established the "Cortese List", which requires state agencies to compile a list of all properties affected by hazardous waste and develop a framework for how they will continue to be monitored and addressed by the State. A site's presence on the list has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA).

California Porter Cologne Water Quality Control Act

Division 7 of the California Water Code (Water Code) identifies the enforcement and implementation rights of the Regional Water Quality Control Board to remedy discharges to surface waters or groundwater that would or could violate water quality standards. Standard remedies include issuance of Cease-and-Desist Orders and cleanup and abatement procedures.

Code of Regulations Title 22

Title 22 of the California Code of Regulations contains all applicable State and Federal laws governing hazardous wastes in the State. Title 22 is more stringent and broader in its coverage of wastes than Federal law. Chapter 51 (Site Remediation) identifies the minimum standards of performance for site investigations and response actions performed by the private sector in site cleanup efforts.

Hazardous waste is any waste with properties that make it potentially dangerous or harmful to human health or the environment. Hazardous waste is defined in one of two ways. Waste is considered hazardous if it appears on one of the five lists created pursuant to the Federal Resource Conservation Recovery Act (RCRA). The lists are known as the F-, K-, P-/U-, and M-lists and reflect non-specific source waste, source-specific waste, discarded commercial chemical products, discarded mercury-containing products, respectively. A waste may also be categorized as hazardous if it exhibits one of the four characteristics of hazardous materials: ignitibility, corrosivity, reactivity, and toxicity. Because of its toxicity, solid wastes containing certain levels of lead are considered hazardous and must be handled, transported, and disposed of in accordance with Federal and State law. In California, two thresholds have been established by State regulation to determine if a waste is hazardous due to its lead content. The Total Threshold Limit Concentration (TTLC) establishes a threshold of 1,000 milligrams (mg) of lead per one kilogram (kG) of waste. The Soluble Threshold Limit Concentration (STLC) establishes a threshold of 5 mg of lead per liter (L) of waste extract solution. Hazardous Waste must be disposed of at Class I landfills that are specifically designed to accept hazardous waste, such as the Kettleman Hills Landfill in Kettleman City in Kings County.

California Asbestos Standards in Construction

The California Division of Occupational Safety and Health (Cal/OSHA) enforces the California Asbestos Standards in Construction (8 CCR Section 1529). These standards regulate exposure to asbestos in all construction work including demolition of structures. These regulations establish entry and exit procedures after working in asbestos contaminated areas and establish specific control measures designed to protect workers depending on the type of asbestos they are handling. Such procedures include minimum air circulations, use of respirators, wetting of materials, clothing laundering, construction and demolition equipment requirements, and shielding specifications. Notification procedures are also in place that require building owner and employee noticing as well as external and internal hazard signage. All asbestos workers

are required to complete training programs and register as an asbestos contractor, depending on the type of asbestos being removed. Medical examination requirements are also required to monitor worker health, generally on an annual basis.

California Construction Safety Orders for Lead

Title 8, Section 1532.2 (Lead) of the California Code of Regulations establishes the requirements for any construction worker who may be exposed to lead during demolition or salvage, removal or encapsulation, new construction, and cleanup activities. The construction safety orders establish an action level of 30 micrograms of lead per cubic meter ($\mu\text{g}/\text{cm}^3$) of air calculated over an 8-hour time-weighted average without regard for the use of a respirator, meaning this is the limit where safety protocols must be initiated, such as use of a respirator. Under no circumstance may a worker be exposed to $50 \mu\text{g}/\text{cm}^3$ over an 8-hour weighted period. These regulations require implementation of engineering and work practice controls such as respiratory protection, protective clothing, housekeeping, hygiene practices, and signage requirements to meet worker exposure limits. Medical monitoring and training requirements are also identified.

Assembly Bill 2948

In response to the growing statewide concern of hazardous waste management, State Assembly Bill 2948 (Tanner 1986) enacted legislation authorizing local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within its jurisdiction.

Hazardous Materials Business Plan (CERS Annual Submittal)

In 1986, the California Governor's Office of Emergency Services (Cal OES) established the Hazardous Materials Business Plan (HMBP) Program, which prevents or minimizes damage to the public and the environment from a release of hazardous materials. Under the Program, California businesses that handle hazardous materials were required to submit an HMBP each year. Assembly Bill 1429, which was passed on July 9, 2019, would require a business with a facility that is not required to submit Tier II information pursuant to the above-mentioned federal provision and is not subject to the provisions governing those aboveground storage tanks to submit its business plan once every three years, instead of annually. However, the Los Angeles County Code of Ordinance, Section 12.64.030 still requires all hazardous materials handlers operating under the jurisdiction of Los Angeles County must electronically certify, or submit an updated HMBP, including the hazardous materials inventory, site map, contingency plan, and the employee training plan information via the Statewide information management system which is also known as the California Environmental Reporting System (CERS).

Emergency Services Act

Under the Emergency Services Act, the State of California developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered but the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including the EPA, California Highway Patrol, Regional Water Quality Control Boards, Air Quality Management Districts, and county disaster response offices.

The Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act requires facilities to disclose to the State and Local Emergency Planning Committee the quantities and type of toxic chemicals stored. To avoid multiple reports to various agencies, the California Health and Safety Code requires notification of chemical inventories to the Administering Agency which is DTSC. Notification of chemical inventory is accomplished through completion of a Hazardous Materials Business Plan and inventory.

Regional

Regional Water Quality Control Board (RWQCB)

One of nine regional boards in the State, the Los Angeles Regional Water Quality Control Board (RWQCB) protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the waters of the State. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks and other sources of groundwater contamination.

South Coast Air Quality Management District (SCAQMD)

The SCAQMD regulates the demolition of buildings and structures that may contain asbestos. The SCAQMD is vested with the authority to regulate airborne pollutants through both inspection and law enforcement and is to be notified 10 days in advance of any proposed demolition or abatement work.

South Coast Air Quality Management District Rule 1403

Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) specifies work practices to limit asbestos emissions from building demolition and renovation activities including the removal and disturbance of asbestos containing material (ACM). This rule is generally designed to protect uses surrounding demolition or renovation activities from exposure to asbestos emissions. Rule 1403 requires of any facility being demolished or renovated for the presence of all friable and Class I and Class II non-friable ACM. Rule 1403 also establishes notification procedures, removal procedures, handling operations, and warning label requirements.

Environmental Site Assessment (ESA) Procedures

A Phase I ESA is the initial investigation phase of a process established by the American Society for Testing and Materials Standards (ASTM), as adequate due diligence by new purchasers of properties or their lenders prior to site development. Phase I ESAs must be completed prior to property development by private parties to establish that the buyer has exercised due diligence in purchasing the site. If a Phase I ESA indicates evidence of site contamination, a Phase II ESA would be required prior to site development. The Phase II ESA includes collection of original samples of soil, groundwater, or building materials to measure and analyze quantities of various contaminants. The most frequent substances tested for are petroleum hydrocarbons, heavy metals, pesticides, solvents, asbestos, and mold. Appropriate cleanup levels for each contaminant, based on current and planned land use, would be determined in accordance with professional procedures adopted by the lead agency (e.g., DTSC, RWQCB, SCAQMD, CUPA).

County of Los Angeles

Los Angeles County Fire Department (LACFD), Certified Unified Program Agency (CUPA)

The LACFD Health Hazardous Materials Department is a CUPA under the state that administers 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. CUPAs and Program Agencies (PAs) throughout the state created a partnership and formed the California CUPA Forum. Together, members of the California CUPA Forum and representatives of local, state and federal agencies established the Unified Program Administration and Advisory Group (UPAAG) to effectively address policy decisions, training and problem solving. The UPAAG's goals and objectives are listed in the UPAAG Strategic Plan. The Unified Program consolidates the administration, permit, inspection, and enforcement activities of the following environmental and emergency management programs:

- Aboveground Petroleum Storage Act (APSA) Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- Hazardous Material Management Plan (HMMP) and Hazardous Material Inventory Statements (HMIS) (California Fire Code)
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- Underground Storage Tank Program

State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency and providing technical assistance to CUPAs and PAs. The following state agencies are involved with the Unified Program:

Multi-Hazard Functional Plan

The County's Emergency Plan addresses the planned response to extraordinary emergency situations associated with natural and human caused disasters, technological incidents and national security operations. Individuals and departments assigned emergency responsibilities within this plan will have prepared appropriate supporting plans and related Standard Operating Procedures.

Health Hazardous Materials Division

In May 1982, the Los Angeles County Board of Supervisors established the Hazardous Materials Control Program in the Department of Health Services. The program focuses on inspection of businesses that generate hazardous waste, hazardous materials inspections, criminal investigations, site mitigation oversight, and emergency response operations. On July 1, 1991, the program was transferred to the Fire Department's Health Hazardous Materials Division (HHMD). The HHMD's mission is to protect the public health and the environment throughout Los Angeles County from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Los Angeles County Fire HHMD administers the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program for the City of Whittier. Senate Bill 1082 (1993)

established the "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program." The Unified Program consolidates, coordinates, and makes consistent the following hazardous materials and hazardous waste programs (Program Elements):

- Hazardous Waste Generation (including onsite treatment under Tiered Permitting);
- Aboveground Petroleum Storage Tanks (only the Spill Prevention Control and Countermeasure Plan or "SPCC");
- Underground Storage Tanks (USTs);
- Hazardous Material Release Response Plans and Inventories;
- California Accidental Release Prevention Program (Cal ARP); and
- Uniform Fire Code Hazardous Material Management Plans and Inventories.

Household Hazardous and E-Waste Program

The Sanitation Districts of Los Angeles County have established the Household Hazardous and Electronic Waste (E-Waste) Collection Program to provide County residents a legal and cost-free way to dispose of unwanted household chemicals that cannot be disposed of in the regular trash. The Household Hazardous Waste Program allows residents to dispose of the following household chemicals and E-waste.

- Household Chemicals
- Motor oil, oil filters, brake fluid
- Used antifreeze
- Paint, paint thinner, turpentine
- Cleaners with acid or lye
- Pesticides or herbicides
- Household batteries or car batteries
- Pool chemicals
- CRTs, old TVs, misc. electronics
- Mercury thermometers or thermostats
- Fluorescent light bulbs
- Used needles or sharps (In a Sharps container or sturdy box labeled "SHARPS")
- Unwanted or expired prescriptions

LA Sanitation (LASAN) has established permanent collection sites throughout the County known as S.A.F.E. Centers (Solvents/Automotive/Flammables/Electronics).

Los Angeles County Airport Land Use Commission

The main goal of the Airport Land Use Commission (ALUC) is to protect the public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to extensive noise and safety hazards within areas around airports.

Local

City of Whittier General Plan

The Public Safety Element of the 1993 General Plan contains the following goals and policies regarding hazards and hazardous materials:

Goal 4: Develop programs to protect residents and businesses from hazardous materials contamination.

Policy 4.1: Support the enforcement of state and federal environmental and pollution control laws. The City should work with the Fire Department to require hazardous materials users and generators to prepare procedures for responding to accidental spills and emergencies.

Policy 4.2: Promote the proper disposal of hazardous materials and prohibit the disposal of hazardous materials at the Savage Canyon Landfill. Random checks of incoming trucks to the landfill shall be continued. At the same time, develop programs to dispose of small quantities of household hazardous wastes.

Policy 4.3: Designate routes for trucks carrying hazardous materials and preventing trucks from using residential and local streets.

Policy 4.4: Work with the County Fire Department, and adjacent cities on emergency response plans for hazardous material accidents.

City of Whittier Natural Hazards Mitigation Plan

The City has adopted a Natural Hazards Mitigation Plan which provides natural hazard mitigation strategies to reduce the impacts concentrated at large employment and industrial centers, public infrastructure, and critical facilities. The measures were created to be integrated into future building code updates and General Plan Public Safety, Health and Noise Element updates. The mitigation measures are therefore implemented by conformance with the building code and regulation.

4.9.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to hazards and hazardous materials if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- e) For development within the GPU area located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the GPU result in a safety hazard or excessive noise for people residing or working in the GPU area;
- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.9.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to hazards and hazardous materials which could result from the implementation of the General Plan Update and recommends mitigation measures as needed to reduce significant impacts.

Transport, Use, and Disposal Hazards

Impact HAZMAT-1 – Would the GPU create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Analysis of Impacts

Implementation of the proposed General Plan Update would result in an increase in residential dwelling units and commercial square footage within the Planning Area. Construction associated with implementation of the Specific Plan would likely involve the use and disposal of chemical agents, solvents, paints, and other hazardous materials associated with construction activities. The amount of these chemicals present during construction would be limited, would comply with existing government regulations, and would not be considered a significant hazard.

Hazardous materials associated with new residential uses could include, for example, liquid chemical products (e.g., household cleaners, used motor oil, building maintenance supplies, paints and solvents, pesticides, or other similar materials). The limited quantity of such products would not generate significant hazardous emissions or involve the use of acutely hazardous materials that could pose a significant threat to the environment.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to the transport, use, and disposal of hazardous materials - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 7: A high level of comfort that residents, businesses, and habitats have minimal exposure to hazardous materials and their deleterious effects.

Policies

PSHN-7.1: Critically review commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses.

4.9 – Hazards and Hazardous Materials

PSHN-7.2: Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations.

PSHN-7.3: Minimize the exposure of community members to the harmful effects of hazardous materials and waste.

PSHN-7.4: Protect natural resources, including groundwater, from hazardous waste and materials contamination.

PSHN-7.5: Minimize environmental impacts and protect the ecological resources and native habitat resources within the Puente Hills Habitat Preservation Authority associated with any oil drilling and production project.

General Plan Analysis. The public would be protected from hazardous materials (hazmat) through implementation of Policy PSHN-7.1 which requires buffer zones from sensitive receptors from any commercial or industrial uses that handle hazmat, and Policy PSHN-7.2 that requires all businesses to properly handle hazmat. Policy PSHN-7.3 also requires community exposure to hazardous materials to be minimized. Regarding the environment, Policy PSHN-7.4 protects natural resources like the local groundwater from hazardous materials. Finally, Policy PSHN-7.5 also protects natural or native habitat within the Puente Hills from hazards associated with oil drilling.

Future commercial or industrial development within the Planning Area could involve the storage, use and disposal of potentially hazardous materials, including building maintenance supplies, paints and solvents, pesticides and herbicides for landscaping and pest control, vehicle maintenance products, and similar substances. The City will require all new development to follow applicable regulations and guidelines regarding the storage, handling and disposal of hazardous waste. In addition, all hazardous materials are required to be stored and handled according to manufacturer's directions and local, state, and federal regulations.

Summary and Conclusion. Given the existing federal, State, and local hazardous materials regulations already in place, the proposed GPU's potential threat to public health and safety and the environment from hazardous materials transport, storage, use, and disposal would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Hazardous Materials

Impact HAZMAT-2 – Would the GPU create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Analysis of Impacts

As shown in Table 4.9-2, several hazardous materials releases have been reported within the Planning Area. Additionally, there may potentially be other unreported releases within the Planning Area or in areas adjacent to the Planning Area. It is possible that contaminants in soil or groundwater could expose future construction workers, residents, workers or other members of the public to potential hazards. However, the potential for soil contamination would be

addressed through the continued application of General Plan Safety Element Policies that address and resolve underground contamination through the City Planning Division Site Plan and Environmental Review processes, and the Building and Safety Division Building Permit Issuance process

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to hazards and upset conditions - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 7: A high level of comfort that residents, businesses, and habitats have minimal exposure to hazardous materials and their deleterious effects.

Policies

PSHN-7.1: Critically review commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses.

PSHN-7.2: Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations.

PSHN-7.3: Minimize the exposure of community members to the harmful effects of hazardous materials and waste.

PSHN-7.4: Protect natural resources, including groundwater, from hazardous waste and materials contamination.

PSHN-7.5: Minimize environmental impacts and protect the ecological resources and native habitat resources within the Puente Hills Habitat Preservation Authority associated with any oil drilling and production project.

Land Use and Community Character Element

Goal 6: An inclusive and equitable community.

LUCC-6.5: Ensure safe and sanitary housing conditions, redevelopment of vacant and underutilized infill areas, and land use decisions that prioritize health equity, well-being, and economic vitality.

LUCC-6.6: Consider proximity to environmental health risks when planning for residential uses and address potential health risks at sites previously occupied by non-residential land uses.

General Plan Analysis. The buffer zones required by Policy PSHN-7.1 would protect sensitive receptors from accidents or spills at hazmat facilities. In more general terms Policy PSHN-7.2 that requires all businesses to properly handle hazmat which includes accidents and spills, while Policy PSHN-7.3 tries to minimize community exposure to hazardous materials. Policy PSHN-7.4 helps protect the environment (e.g., local groundwater) from hazardous materials. Finally, Policy PSHN-7.5 also protects natural or native habitat within the Puente Hills from hazards associated with oil drilling. Policies LUCC-6.5 and 6.6 protect future residents from hazmat contamination from former non-residential uses.

Demolition of existing structures in the Planning Area would involve removal and disposal of existing building materials. Some older buildings may contain hazardous materials, such as asbestos containing materials or lead based paint. If not properly abated, these materials could

negatively impact construction workers or members of the public. The South Coast Air Quality Management District (SCAQMD) regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos. The SCAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement and is to be notified 10 days in advance of any proposed demolition or abatement work. SCAQMD regulations must always be followed when removing asbestos or demolishing buildings.

Summary and Conclusions. With continued adherence to the requirement of the General Plan Public Safety, Noise and Health Element and compliance with established local, State and federal environmental site assessment procedures; potential risks to human health or the environment due to existing hazardous materials contamination would be less-than-significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Emit Hazardous Emissions

Impact HAZMAT-3 – Would the GPU emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Analysis of Impacts

There are several schools within the Planning Area boundaries. New development within the Planning Area is expected to be primarily residential and commercial uses; these uses are not expected to emit hazardous materials affecting school sites. Hazardous materials associated with new residential and commercial uses could include, for example, liquid chemical products (e.g., household cleaners, used motor oil, building maintenance supplies, paints and solvents, and pesticides). The limited quantity of such products would not generate significant hazardous air emissions or involve the use of acutely hazardous materials that could pose a significant threat to the environment or human health.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to hazards near schools - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 7: A high level of comfort that residents, businesses, and habitats have minimal exposure to hazardous materials and their deleterious effects.

Policies

PSHN-7.1: Critically review commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses.

PSHN-7.2: Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations.

PSHN-7.3: Minimize the exposure of community members to the harmful effects of hazardous materials and waste.

General Plan Analysis. The buffer zones required by Policy PSHN-7.1 would protect sensitive receptors such as schools from hazmat incidents, accidents or spills from businesses. In addition, Policy PSHN-7.3 tries to minimize community exposure to hazardous materials (including schools).

Summary and Conclusions. New development within the Planning Area could use and dispose of chemical agents, solvents, paints, and other hazardous materials associated with construction activities. The amount of these chemicals present during construction would be limited, would comply with existing government regulations, and would not be considered a significant hazard. In addition, individual development applications would be required to undergo a project-specific CEQA review which would include an evaluation of a project's potential impacts on schools. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Hazardous Material Sites

Impact HAZMAT-4 – Would the GPU be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Analysis of Impacts

Sites included on the list required by Government Code Section 65962.5 include hazardous materials contamination that can be detrimental to human health and the environment. As shown in Table 4.9-2, there are several known “open case” contamination sites within the Planning Area that had contamination requiring mediation.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to hazmat sites in the Planning Area - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 7: A high level of comfort that residents, businesses, and habitats have minimal exposure to hazardous materials and their deleterious effects.

Policies

PSHN-7.1: Critically review commercial and industrial uses that involve the use, storage, and transport of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, hospitals, and other sensitive uses.

PSHN-7.2: Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations.

PSHN-7.3: Minimize the exposure of community members to the harmful effects of hazardous materials and waste.

PSHN-7.4: Protect natural resources, including groundwater, from hazardous waste and materials contamination.

PSHN-7.5: Minimize environmental impacts and protect the ecological resources and native habitat resources within the Puente Hills Habitat Preservation Authority associated with any oil drilling and production project.

General Plan Analysis. At this time there are no known sites on the Cortese list that would be housing sites under the GPU. However, future development will have to investigate this possibility as part of their project-specific CEQA review process. Regarding significant environmental hazards, the buffer zones required by Policy PSHN-7.1 would protect sensitive receptors from operations, accidents, or spills at hazmat facilities. In more general terms Policy PSHN-7.2 that requires all businesses to properly handle hazmat which includes accidents and spills, while Policy PSHN-7.3 tries to minimize community exposure to hazardous materials. Policy PSHN-7.4 helps protect the environment (e.g., local groundwater) from hazmat contamination which could be a significant environmental or health risk, although there are efforts ongoing to remediate this past contamination. Finally, Policy PSHN-7.5 also protects native habitat resources in the Puente Hills from hazards associated with oil drilling.

Summary and Conclusions. If future redevelopment is proposed at any of these contamination sites, potential contamination (if not already remediated) would be addressed through the City's development review requirements in accordance with the General Plan Safety Element policies and in compliance with applicable state and federal regulations.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Airports

Impact HAZMAT-5 – For projects located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project GPU result in a safety hazard or excessive noise for people residing or working in the project planning area?

Analysis of Impacts

The El Monte Airport is located approximately 6.9 miles north of the center of the Planning Area and Fullerton Airport is located approximately 8.5 miles southeast of the Planning Area. The GPU area does not fall within the Planning Boundary/Airport Influence Area for either airport (Department of Regional Planning, 2004). Since there are no aircraft influence areas in the City, the existing General Plan and GPU contain no goals or policies related to aircraft safety. Therefore, no impacts related to an airport or private airstrip are anticipated.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Adopted Response and/or Evacuation Plans

Impact HAZMAT-6 – Would the GPU impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Analysis of Impacts

As described in the Whittier Natural Hazards Mitigation Plan, all major public streets serve as principal evacuation routes including Whittier Boulevard, Lambert Road, Santa Fe Springs Road, La Mirada Boulevard/ Colima Road, Norwalk Boulevard, Beverly Boulevard, and Interstate 605 (I-605) (Whittier, 2015). These principal access ways are all well-maintained and should support an evacuation function. In any disaster warranting evacuation, the exact emergency routes used would depend on several variables, including the type, scope, and location of the incident.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to emergency and evacuation plans - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 1: A resilient community well prepared to minimize risks associated with natural hazards and disasters.

Policies

PSHN-1.1: Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

PSHN-1.2: Promote improved inter-jurisdictional consultation and communication regarding disaster or emergency plans of Los Angeles and Orange Counties, and for seismic safety upgrades of public facilities and infrastructure such as dams, reservoirs, and highway structures.

PSHN-1.3: Partner with neighboring cities, regional agencies, local school districts, Whittier College, local businesses, and community organizations to conduct emergency and disaster preparedness exercises that test operational and emergency response plans.

PSHN-1.4: Ensure operational readiness of the Emergency Operations Center (EOC) by conducting annual training for staff and maintaining, testing, and updating equipment to meet current standards.

PSHN-1.5: Train and educate public volunteers in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

Mobility and Infrastructure Element

Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all travel options/

MI-1.1: Establish Whittier’s transportation network as a Complete Streets system and maintain the system in excellent condition to ensure that motor vehicle drivers, cyclists, pedestrians, transit users, goods movement, and people using any other mobility mode can easily and safely reach their destinations in the City.

General Plan Analysis. These goals and policies will allow the City to maintain a high level of preparedness for emergency and disaster conditions, and to allow unhindered emergency access throughout the City. The City’s development review process will assure that future development under the GPU will be consistent with these policies and not hinder emergency access within the City or for individual sites.

Summary and Conclusions. While it is possible that there may be temporary and limited circulation changes that may be required during discrete periods of time associated with specific construction projects, these changes would be temporary and would be of a nature that still allowed evacuation in the event of an emergency. Emergency access would be maintained to all properties within the project limits and the surrounding vicinity during construction. Potential adverse impacts of the GPU on emergency access would therefore be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Wildland Fires

Impact HAZMAT-7 – Would the GPU expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Analysis of Impacts

Generally, the greatest potential for wildfire hazards occurs in areas adjacent to abundant natural vegetation. Several of the foothill and hillside neighborhoods of the Planning Area, along with other communities located in the Puente Hills, are designated “Very High Fire Hazard Severity” (VHFS) Zones by Los Angeles County. Developments within this zone are subject to the County’s fuel modification plans. The Los Angeles County Fire Department provides firefighting services to Whittier’s portion of the Local Responsibility Area (LRA) and reviews and approves fuel modification plans (Whittier, 2017 & DFFP, 2020).

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to wildland fires - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 3: Reduced risk of fire and minimized consequences from fire events.

Policies

PSHN-3.1: Prevent fires by conducting routine inspections, incorporating fire safety features in new development, and educating the public to take proactive action to minimize fire risks.

PSHN-3.2: Ensure that the City has adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

PSHN-3.3: Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.

PSHN-3.4: Require new development projects to have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

PSHN-3.5: Maintain code enforcement programs that require private and public property owners to minimize fire risks by maintaining buildings and properties to prevent blighted conditions, removing excessive or overgrown vegetation (e.g., trees, shrubs, weeds), and removing litter, rubbish, and illegally dumped items from properties.

Goal 5: A community that proactively prevents wildfires and protects life, property, infrastructure, and habitats from wildfire impacts.

PSHN-5.1: Minimize new residential development within the Very High Fire Hazard Severity Zones.

PSHN-5.2: Require special on-site fire protection measures to be specified during project review for areas where wildfire hazards potential exists, specifically areas of hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, and/or excessively dry brush.

PSHN-5.3: Ensure new development adheres to California Government Code sections 51175 to 51189 related to Very High Fire Hazard Severity Zones, all requirements in the California Building Code and California Fire Code, and the Board of Forestry and Fire Protection Fire Safe Regulations.

PSHN-5.4: Regulate and enforce the installation of fire protection water system standards for all new construction projects within Very High Fire Hazard Severity Zones, including the installation of fire hydrants providing adequate fire flow, fire sprinkler, or suppression systems.

PSHN-5.5: Require new development within Very High Fire Hazard Severity Zones to include a fire protection plan that addresses landscape/fuel modification installation, incorporates open areas to complement defensible spaces, identifies possible refuge areas, and maps multiple ingress and egress routes.

PSHN-5.6: Require new development within Very High Fire Hazard Severity Zones to provide pre-plans for fire risk areas that address resident evacuation and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress.

PSHN-5.7: Require new development within and adjoining Very High Fire Hazard Severity Zones to prepare a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

PSHN-5.8: Require new development, and as feasible with existing development, to provide long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks within Very High Fire Hazard Severity Zones.

PSHN-5.9: Conduct a survey of existing residential structures within the Very High Fire Hazard Severity Zones to identify non-conforming buildings related to fire safety standards and consult with property owners to bring those properties into compliance with the most current building and fire safety standards.

PSHN-5.10: Identify at-risk populations that would be vulnerable during wildfire evacuations.

PSHN-5.11: Identify measures to preserve undeveloped ridgelines to reduce fire risk and improve fire protection.

PSHN-5.12: Locate essential public facilities out of high-risk, wildfire-prone areas unless additional mitigation measures are put into place above the minimum fire protection standards.

PSHN-5.13: Collaborate with the regional fire agencies and the Puente Hills Landfill Habitat Preservation Authority on different strategies available to maintain diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

General Plan Analysis. The proposed land use plan of the General Plan Update designates the Puente Hills as permanent open space and precludes any development in these areas. Safety Policy PSHN-5.13 indicates the City will collaborate with the regional fire agencies and the Puente Hills Landfill Habitat Preservation Authority to develop effective strategies that will provide the Puente Hills with adequate fire protection and maintain habitat diversity while still being able to thin out combustible vegetation and maintain fuel breaks without permanently damaging native habitat. In addition, Goal 5 and its policies specifically address the location, design, and protection of new development in very high fire zones which includes the foothills of the Puente Hills and areas designated as hillside residential within the City. Compliance with these goals and policies, and the City Fire Department's development review process for new development, will help minimize the potential for impacts related to wildfire risks to the City.

Summary and Conclusions. Therefore, the GPU would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Impacts will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact HAZMAT-8 – Would the GPU cause substantial adverse cumulative impacts with respect to hazards and hazardous materials?

Analysis of Impacts

Impacts related to hazards and hazardous materials are generally site specific and not cumulative in nature because each project area has unique considerations that would be subject to uniform site development and construction standards. As such, the potential for cumulative impacts is limited. Impacts associated with potential fire hazards occur at individual building sites. These effects are site-specific, and impacts would not be compounded by additional development within the urban setting of the Planning Area.

The Public Safety, Noise, and Health Element of the proposed GPU contains Goals 1, 3, 5, and 7 and their policies that would help protect residents, sensitive receptors, and structures from exposure to hazardous materials or accidents and spills involving hazardous materials. It is assumed other surrounding jurisdictions have similar General Plan goals and policies as they generally reflect compliance with state laws regarding various hazards and hazardous materials.

Compliance with the requirements of the General Plan Public Safety, Noise, and Health Element described above would result in impacts from hazardous materials and fire that would be less-than significant. Implementation of the proposed GPU would not result in a cumulatively considerable impact.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.9.5 REFERENCES

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4.10 – Hydrology and Water Quality

This EIR chapter addresses hydrology and water quality impacts associated with the proposed General Plan Update (GPU).

4.10.1 – ENVIRONMENTAL SETTING

Watershed

The Puente Hills are located in the San Gabriel River Watershed which is bounded by the San Gabriel Mountains to the north, San Bernardino and Orange counties to the east, the Los Angeles River to the west, and the Pacific Ocean to the south. The Planning Area is primarily located in the Lower San Gabriel River sub-watershed area. The San Gabriel River receives drainage from 640 square miles of eastern Los Angeles County; its headwaters originate in the San Gabriel Mountains. The watershed is hydraulically connected to the Los Angeles River through the Whittier Narrows Reservoir though normally only during high storm flows. The lower part of the river flows through a concrete-lined channel in a heavily urbanized portion of the County before becoming a soft-bottom channel once again near the ocean in the City of Long Beach. Pollutants from dense clusters of residential and commercial activities have impaired water quality in the middle and lower watershed (Whittier, 2017).

Groundwater

Whittier is underlain by the Los Angeles coastal plain groundwater basin system. This system is made up of five groundwater basins: West Coast, Santa Monica, Hollywood, Central Basin, and the Orange County Coastal Plain. Whittier is located within the Central Basin which underlies a large portion of the southeastern part of the Los Angeles coastal plain. The Central Basin is bounded by the Elysian, Repetto, Merced, and Puente Hills on the north and northeast; and the Rosecrans, Signal, and Bixby Ranch Hills on the south and west. The Central Basin groundwater comprises three layers. The top layer is shallow semi-perched water, the primary body of fresh water is underneath, and the bottom layer is salt water. Groundwater movement generally results from differences in pressure between points of recharge, such as percolation areas, spreading grounds, and streams, and from points of discharge, such as wells, the ocean, and springs (Whittier, 2017).

Surface Waters

Surface waters in Whittier flow towards the southwest, discharging into Coyote Creek and ultimately in the San Gabriel River and Pacific Ocean. Over a dozen tributaries flow southerly down through the Puente Hills including intermittent streams and creeks. These flows are then conveyed via concrete-lined channels and underground stormwater culverts. The channels flow south, crossing Santa Fe Springs and Cerritos, and eventually draining into Coyote Creek. Although intermittent streams flow seasonally, they are important to the health of the downstream waters. Intermittent streams support distinctive riparian vegetation and play a major biological role by supplying sediment, water, and organic materials to downstream water channels (Whittier, 2017).

Topography and Drainage

The Planning Area lies in the southeastern portion of Los Angeles County where the San Gabriel Valley and Los Angeles Basin meet. The Los Angeles County Flood Control District (LACFCD) maintains the larger stormwater conduits in the area which direct urban runoff to the

nearest wash, creek or river. The LACFCD storm drains eventually discharge to the San Gabriel River and finally the Pacific Ocean.

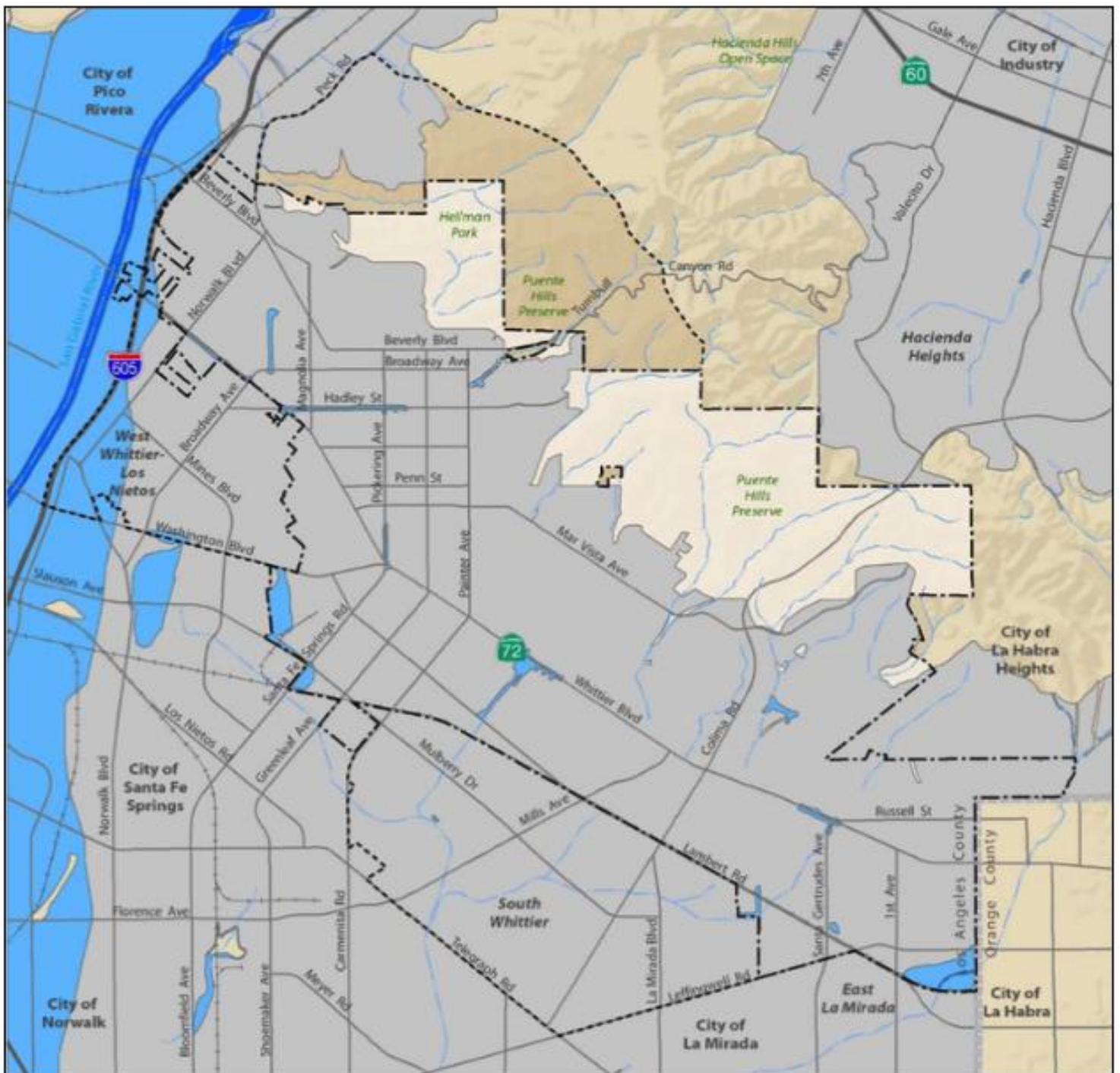
Flooding and Dam Inundation

Most of the Planning Area faces minimal flood hazards. Risk of flooding from a 500-year flood event occurs in small pockets of the City. The Federal Emergency Management Agency (FEMA) has not mapped a 100-year flood zone in the Planning Area. The most recent notable flooding in the Planning Area occurred during the El Niño-driven winter storms of 1995. The storms led to slow-rise flooding caused by extremely heavy rainfall. The Planning Area contains a high concentration of impermeable surfaces that either collect water or concentrate the flow of water in unnatural channels. During periods of urban flooding, streets can become swift moving rivers and basements can fill with water. Storm drains often back up with vegetative debris, causing additional localized flooding (Whittier, 2017).

According to the Federal Emergency Management Agency (FEMA) Flood Panel FIRM Map 06037C1835F, a majority of the Planning Area is designated Zone X (unshaded), which are areas determined to be outside the 0.2% annual chance floodplain. This includes the flatter, urbanized areas in the southwestern portion of the Planning Area. However, there are some small areas in the southwestern portion of the Planning Area that are designated Zone X (shaded), which are areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood. There is also a similarly shaded zone area in the industrial area in the western Planning Area roughly bounded by Washington Boulevard, Santa Fe Springs Road, and Slauson Avenue.

Much of the northeastern portion of the Planning Area in the hillside neighborhoods and Puente Hills is designated Zone D, which area areas in which flood hazards are undetermined, but possible. However, there are three locations in this area that are designated as either Zone AE, Zone AO, or both. Two of these areas (EL 421 & EL 536) are located in the Turnbull Canyon area and the third (EL 383) is located in the Savage Creek Area. Exhibit 4.10-1 (FEMA Flood Zones) shows the areas of the Planning Area that are within 100- or 500-year flood zones.

Exhibit 4.10-2 (Dam and Reservoir Inundation) shows the inundation limits for the Whittier Narrows Dam and the Hoover Reservoir. As shown in Exhibit 4.10-2, the Hoover Reservoir and Whittier Narrows Dam in Pico Rivera, if they fail, pose dam inundation hazards to small portions of Whittier. The Whittier Narrows Dam holds approximately 21.9 million gallons of water. The U.S. Army Corps of Engineers determined in 2016 that the 60-year old Whittier Narrows Dam was structurally unsafe and posed a potentially catastrophic risk to the communities along the San Gabriel River floodplain. In addition, engineers found that the 3.2-mile long earthen structure could fail if water were to flow over its crest or if seepage eroded the sandy soil underneath. According to a U.S. Army Corps of Engineers report based on research conducted in 2016, unusually heavy rains could trigger a premature opening of the dam's massive spillway. The inundation area affects primarily the western portion of the Planning Area, including the City's groundwater wellfield and water pumping station (Whittier, 2017).



FEMA Flood Zones

- 100-Year Flood Zone
- 500-Year Flood Zone
- Area of Minimal Flood Hazard

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks



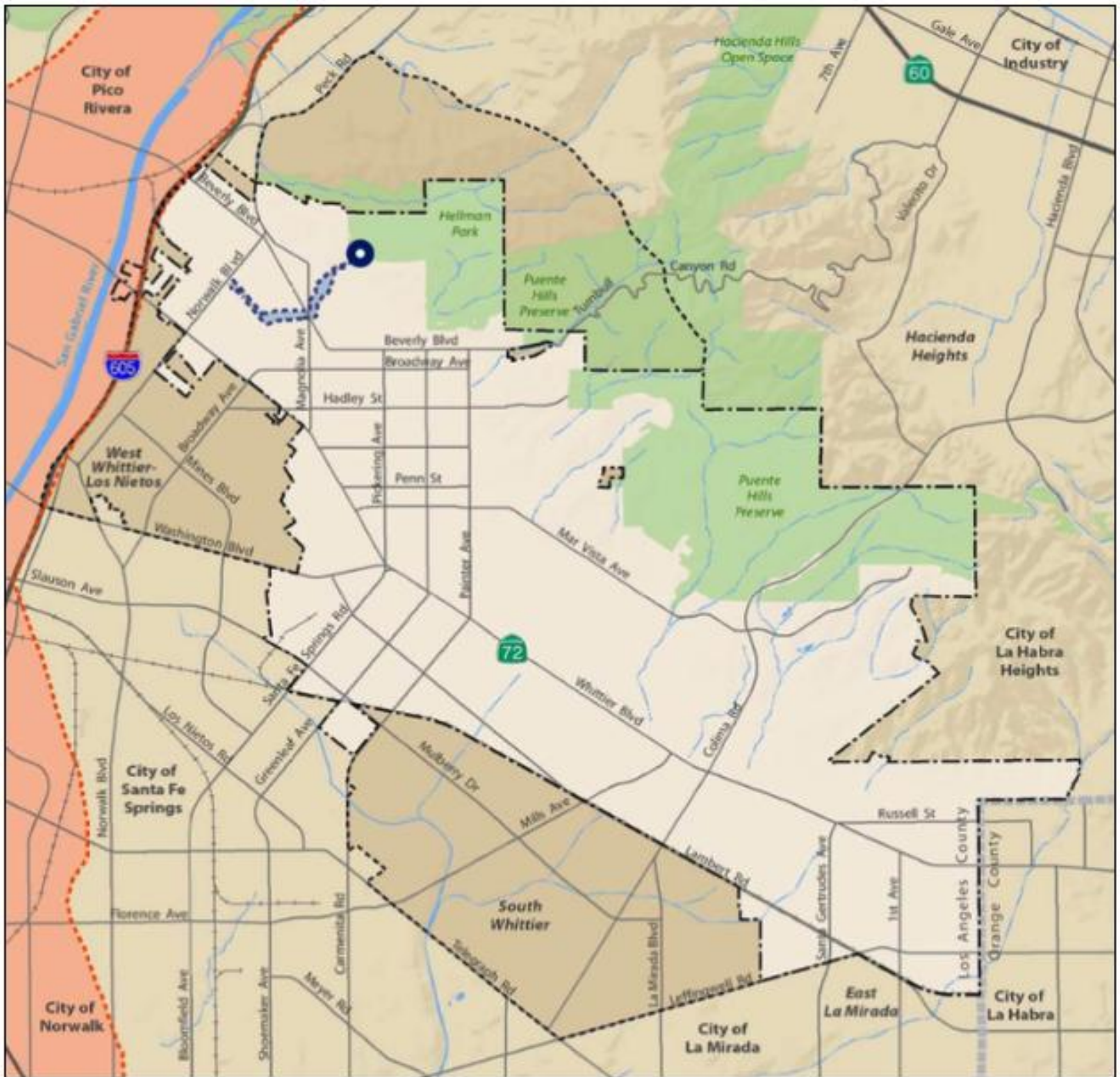
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Exhibit 4.10-1 FEMA Flood Zones

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Whittier, California



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Inundation Limits

-  Whittier Narrows Inundation Limits
-  Hoover Reservoir Inundation Limits
-  Hoover Reservoir

Base Map Features

-  Whittier City Boundary
-  Whittier Sphere of Influence
-  County Boundary
-  Major Streets
-  Freeways
-  Railroads
-  River and Creeks
-  Waterbodies
-  Open Space/Natural Areas



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Exhibit 4.10-2 Dam & Reservoir Inundation

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Stormwater Quality

Point Source Pollutants

Point-source pollutants have historically consisted of industrial operations with discrete discharges to receiving waters. Industrial operations often include potential sources of pollutant discharges that require coverage under the State of California's General Industrial Permit. The General Industrial Permit requires industrial operations to comply with regulations that significantly lessen the impact of industry on water quality. Different types of point source pollutants are discussed below.

Sediment. Sediment is made up of tiny soil particles that are washed or blown into surface water degrading the quality because they can impact suspended soil particles resulting in increased turbidity. The fine particles also act as a vehicle to transport other pollutants, including nutrients, trace metals, and hydrocarbons. Construction sites are typically the largest source of sediment for urban areas under development.

Nutrients. Nutrients (especially phosphorus and nitrogen) are a major concern for surface water quality because they can cause algal blooms and excessive vegetative growth. Of the two, phosphorus is usually the limited nutrient that controls the growth of algae in lakes.

The ortho phosphorous form of phosphorus is readily available for plant growth. The ammonium of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate, and nitrite forms nitrogen in a process called nitrification. The process consumes large amounts of oxygen which can impair the dissolved oxygen levels in water.

The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawn or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching groundwater. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. Other problems resulting from excess nutrients are surface algal scums, water discolorations, odors, toxic releases, and overgrowth of plants. Common measures for nutrients are total nitrogen, total kjeldahl nitrogen (TKN), nitrate ammonia, total phosphate, and total organic carbon (TOC). Generally, nutrient export is greatest from development sites with the most impervious areas.

Trace Metals. Trace metals are primarily a concern because of their toxic effects on aquatic life and their potential to contaminate drinking water supplies. The most common trace metals found in urban runoff are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment, and this effectively reduces the amount that is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with the sediment settle out rapidly and accumulate in the soils. Also, urban runoff events typically occur over a shorter duration, which reduces the aquatic environment's amount of exposure to toxics. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

Oxygen-Demanding Substances. Aquatic life is dependent on the dissolved oxygen (DO) in the water, and when organic matter is consumed by microorganisms, DO is consumed in the process. A rainfall event can deposit large quantities of oxygen-demanding substances in lakes and streams. The biochemical oxygen demand (BOD) of typical urban runoff is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A problem from low DO results when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by direct measures of DO and indirect measures

such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), oils and greases, and TOC.

Bacteria. Bacteria levels in undiluted urban runoff typically exceed public health standards for water contact recreation. Studies have found that total coliform counts typically exceed U.S. EPA water quality criteria almost every time it rained. The coliform bacteria that are detected may not be a health risk in themselves but are often associated with human pathogens.

Oil and Grease. Oil and grease contain a wide variety of hydrocarbons some of which would be toxic to aquatic life in low concentrations. These materials initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly become absorbed by it. The major source of hydrocarbons in urban runoff is crankcase oil and other lubricating agents that leak from automobiles. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbons export although illegal disposal of waste oil into stormwater can be a problem in urban areas.

Priority Pollutants

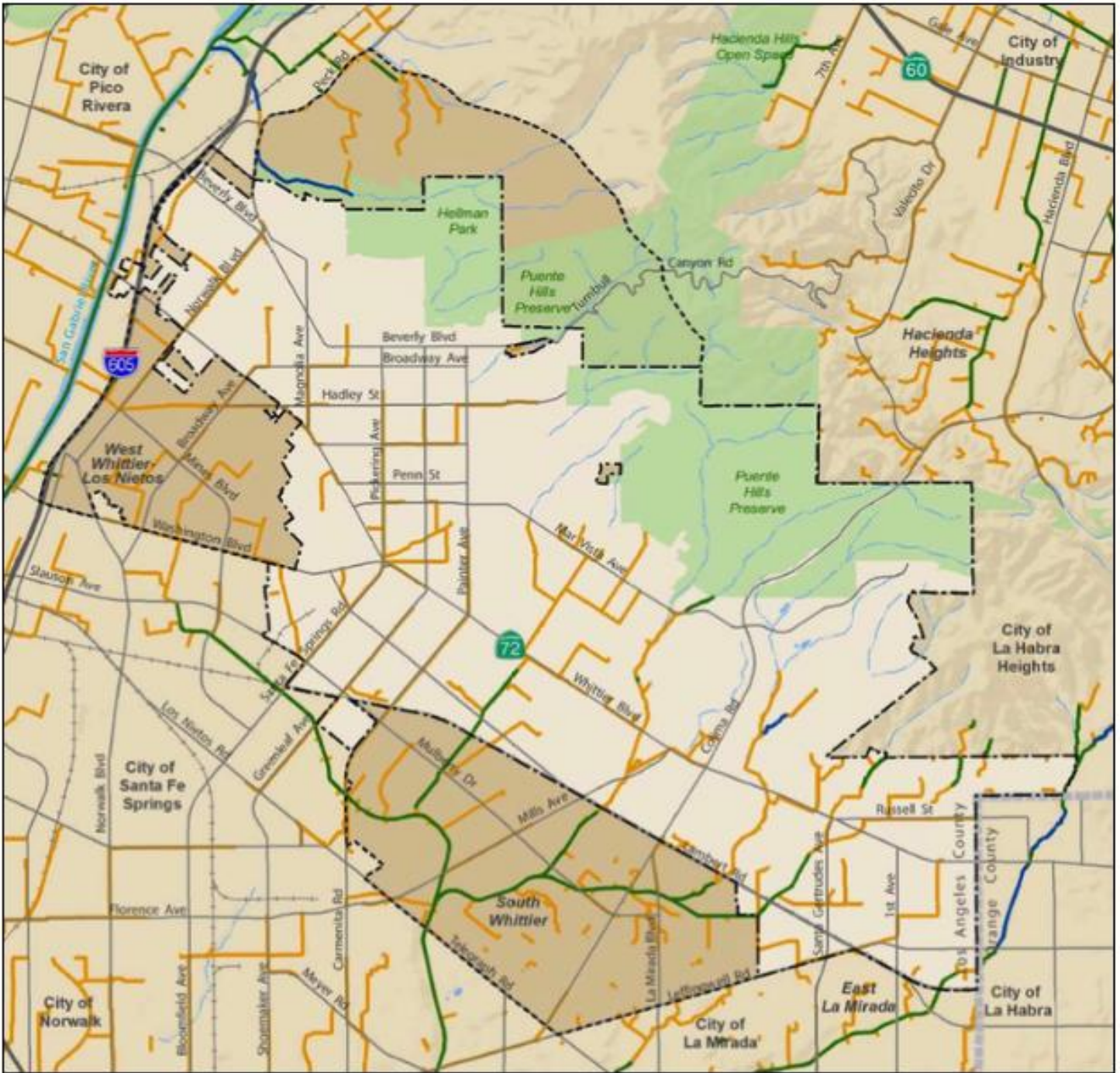
Priority pollutants generally are related to hazardous wastes or toxic chemicals which can be detected in storm water. Priority pollutant scans have been conducted on urban runoff in this region by various regulatory agencies, including the Regional Water Quality Control Board, according to U.S. EPA standards. These previous studies evaluated the presence of over 120 toxic chemicals and compounds and rarely revealed levels of toxins that exceeded the current safety criteria. The urban runoff scans were primarily conducted in suburban areas which are not expected to have many sources of toxic pollutants with the possible exception of illegally disposed or applied household hazardous wastes. Priority pollutants in stormwater include phthalate (plasticizer compound), phenols and creosols (wood preservatives), pesticides and herbicides, oils and greases, and metals.

Physical Characteristics of Stormwater

The physical properties and chemical constituents of water traditionally are used to monitor and evaluate water quality. The water quality parameters for stormwater are numerous and are classified in several ways. In many cases, the concentration of an urban pollutant, rather than the annual load (amount) of that pollutant, is needed to assess a water quality problem.

Existing Stormwater Quality

Given the mostly built out nature of the Planning Area, it is expected for existing pollutants to largely consist of oil and grease, suspended solids, trash, nutrients, bacteria, and household hazardous wastes. Existing Stormwater Drainage Facilities within the Planning Area are illustrated in Exhibit 4.10-3 (Storm Drainage Facilities).



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Storm Drains

- Open Drainage Course
- Natural Drainage Course
- Gravity Main



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Exhibit 4.10-3 Storm Drainage Facilities

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4.10.2 – REGULATORY FRAMEWORK

Federal

Clean Water Act

The Clean Water Act (CWA) is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges (known as “point sources”) into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff, the principal nonpoint source. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support “the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water”. Under the watershed approach, equal emphasis is placed on protecting healthy waters and restoring impaired ones.

Major CWA programs include water quality standards, anti-degradation policy, waterbody monitoring and assessment, total maximum daily loads (TMDLs), the National Pollutant Discharge Elimination System (NPDES) permit program for point sources, Section 319 program for nonpoint sources, Section 404 program regulating filling of wetlands and other waters, Section 401 state water quality certification, and the state revolving loan fund (SRF).

Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) creates maps classifying levels of flood risk or flood zones for designated areas. The maps are called Flood Insurance Rate Maps (FIRMs) and are utilized to determine the need and rate of flood insurance. Flood zones are determined based on historical data on the likelihood of flood inundation. The 100-year flood zone, also classified as Zones A, AO and AE, is the area of flooding expected to occur every 100 years.

NPDES Program

The National Pollutant Discharge Elimination System (NPDES) program requires permitting for activities that discharge pollutants into waters of the United States. This includes discharges from municipal, industrial, and construction sources. Generally, these permits are issued and monitored under the oversight of the State Water Resources Control Board (SWRCB) and administered by each regional water quality control board. A brief discussion of these permit types are presented below:

Municipal Permits. Municipal separate storm sewer systems (MS4) are issued permits based on the size of the municipality. MS4 permit requirements include reduction of pollutant discharges to the ‘maximum extent practicable’ and protection of water quality. Requirements also include identification of major outfalls and pollutant loads and control of discharges from new development and redevelopment. To address these objectives, municipalities are required to prepare stormwater management plans. Although the NPDES program does not regulate nonpoint sources of pollution, the Los Angeles Basin RWQCB has other programs in place to address nonpoint sources.

Industrial Permits: The State Water Resources Control Board issues the Industrial General Permit that regulates discharges from 10 broad categories of industrial activities. The permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) and monitoring program to implement water quality objectives through use of the best available technology (BAT) economically achievable and best conventional pollutant control technology (BCT).

Construction Permits: Construction activities that disturb one acre or more (whether a single project or part of a larger development) are required to obtain coverage under the State's General Permit for Dischargers of Storm Water Associated with Construction Activity. The activities covered under the Construction General Permit include clearing, grading, and other disturbances. The permit requires preparation of a SWPPP and implementation of Best Management Practices (BMPs) with a monitoring program.

State

Porter-Cologne Act (California)

Under the Porter-Cologne Water Quality Control Act (Porter-Cologne) the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. Porter-Cologne also established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. RWQCBs engage in a number of water quality functions in their respective regions.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California.

NPDES Regulations

The Federal Clean Water Act allows individual states to operate their own NPDES programs provided such programs meet minimum Federal requirements. The Los Angeles Regional Water Quality Control Board issues the municipal stormwater National Pollutant Discharge Elimination System permit, MS4, which encompasses the City of Whittier.

The objective of Order No. 01-182 is to protect the beneficial uses of receiving waters in Los Angeles County. To meet this objective, the Order requires that the Los Angeles countywide Stormwater Quality Management Plan (SQMP) specify Best Management Practices (BMPs) that would be implemented to reduce the discharge of pollutants in stormwater to the maximum extent practicable. Further, Permittees are to assure that stormwater discharges from the MS4 shall neither cause nor contribute to the exceedance of water quality, standards and objectives nor create conditions of nuisance in the receiving waters, and that the discharge of non-storm water to the MS4 has been effectively prohibited.

NPDES Permit No. CAS004001 requires implementation of a Stormwater Quality Management Plan which provides specific guidelines to control, reduce and monitor discharges of waste to storm drain systems. This permit regulates municipal discharges of storm water and non-storm water by the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County. The emphasis of the Stormwater Quality Management Plan is pollution prevention through education, public outreach, planning and implementation as source control BMPs first and structural and treatment control BMPs second.

Standard Urban Stormwater Mitigation Plan (SUSMP)

The Standard Urban Stormwater Mitigation Plan (SUSMP) was developed as part of the Los Angeles Regional Water Quality Control Board's Municipal Stormwater Program. The Standard Urban Stormwater Mitigation Plan addresses stormwater pollution from certain types of new development and redevelopment. The Standard Urban Stormwater Mitigation Plan specifies the minimum required Best Management Practices (BMPs) that must be used for a designated project. Additional BMPs may be required on certain targeted categories of projects based on these regulations at the discretion of the City of Whittier. Applicable project applicants are required to incorporate appropriate Standard Urban Stormwater Mitigation Plan requirements into their development plans.

California Water Plan

Required by the California Water Code Section 10005(a), the California Water Plan, prepared by the State Department of Water Resources (DWR), is the state government's strategic plan for managing and developing water resources statewide for current and future generations and provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The California Water Plan, which is updated every five years, presents basic data and information on California's water resources, including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The California Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the state's water needs. The goal for the California Water Plan Update is to meet California Water Code requirements, while receiving broad support among those participating in California's water planning, and serving as a useful document for the public, water planners throughout the state, legislators, and other decision-makers.

Colbey-Alquist Floodplain Management Act

The Colbey-Alquist Floodplain Management Act encourages local governments to plan, adopt and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. This act also identifies requirements which jurisdictions must meet in order to receive state financial assistance for flood control.

State Resolution No. W-4976

In recent years, the State of California has been experiencing dry weather conditions due to less rainfall in the area, thus, causing a statewide drought emergency. In an effort to promote water conservation effort, Resolution No. W-4976 was adopted by the California Public Utilities Commission on February 27, 2014 to establish procedures for water conservation measures in order to ensure a reduction in consumption. Since many water utility agencies or companies secure their water supply from multiple sources, including water wholesaler, surface water and/or ground water; the adoption of this mandate has affected how water utility districts plan their service distribution while encountering various levels of water supply adjustments within each service areas.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen Code), Part 11 of the California Building Standards Code (Title 24) is designed to improve public health, safety, and general welfare by utilizing design and construction methods that reduce the negative environmental impact of development and to encourage sustainable construction practices. The CALGreen

Code provides mandatory direction to developers of all new construction and renovations of residential and non-residential structures with regard to all aspects of design and construction, including, but not limited to, site drainage design, stormwater management, and water use efficiency. Required measures are accompanied by a set of voluntary standards designed to encourage developers and cities to aim for a higher standard of development.

Low Impact Development

The State of California adopted sustainability as a core value for all California Water Boards' activities and programs on January 20, 2005. Low Impact Development (LID) practices benefit water supply and contribute to water quality protection by taking a different approach to development and using site design and storm water management to maintain the site's pre-development runoff rates and volumes. The amount of impervious surface, infiltration, water quality, and infrastructure costs can all be addressed by LID techniques, tools, and materials. LID practices include: bioretention facilities or rain gardens, grass swales and channels, vegetated rooftops, rain barrels, cisterns, vegetated filter strips, and permeable pavements.

Regional

Los Angeles Regional Basin Plan

The California legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality, including the Porter–Cologne Act and portions of the CWA, to the SWRCB and its nine RWQCBs. The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement Basin Plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The Los Angeles RWQCB is responsible for the protection of the beneficial uses of waters within the coastal watersheds of Los Angeles and Ventura counties, including the Project area. The Water Quality Control Plan Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (California Water Code Sections 13240–13247). The Los Angeles RWQCB Basin Plan must conform to the policies set forth in the Porter-Cologne Act as established by the SWRCB in its state water policy. The Porter-Cologne Act also provides the RWQCBs with authority to include within their basin plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

More specifically, the Basin Plan: (i) identifies beneficial uses for surface and ground waters, (ii) includes narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs and other actions that are necessary to achieve the water quality objectives established in the Basin Plan.

The Basin Plan is continually being updated to include amendments related to implementation of TMDLs of potential pollutants or water quality stressors, revisions of programs and policies within the Los Angeles RWQCB region, and changes to beneficial use designations and associated water quality objectives.

Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended)

For stormwater discharges associated with construction activity in the State of California, the SWRCB has adopted the General Permit for Storm Water Discharges Associated with

Construction and Land Disturbance Activities (Construction General Permit) to avoid and minimize water quality impacts attributable to such activities. The Construction General Permit applies to all projects in which construction activity disturbs one acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality BMPs designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

Activities that disturb over half an acre of land require coverage under the Construction General Permit. Waste Discharge Requirements for the Discharge of Groundwater from Construction and Project Dewatering to Surface Waters in the Coastal Watersheds of Los Angeles and Ventura County (Los Angeles RWQCB Order no. R4-2018-0125). This general order is intended to authorize discharges of treated or untreated groundwater generated from permanent or temporary dewatering operations or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits. Discharges from facilities to waters of the United States that do not cause, have the reasonable potential to cause, or contribute to an in-stream excursion above any applicable state or federal water quality objectives/criteria or cause acute or chronic toxicity in the receiving water are authorized discharges in accordance with the conditions set forth in this Order. To demonstrate coverage under the order, dischargers must submit documentation to show that the discharge would not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters, or any other discharge prohibition listed in the order. In addition, discharges must perform reasonable potential analysis using a representative sample of groundwater or wastewater to be discharged. The sample shall be analyzed, and the data compared to the water quality screening criteria for the constituents listed in the order, and if results show exceedance of water quality screening criteria, the discharge will be required to treat the wastewater to acceptable standards prior to discharge.

Local

City General Plan

The Environmental Resource Management Element (ERME) of the existing 1993 General Plan contain the following goals and policies relative to hydrology and water quality:

Goal 1.0: Preserve or conserve natural and cultural resources that have scientific, educational, economic, aesthetic, social, and cultural value.

Policy 1.1: Cooperate with state, federal, and regional agencies to monitor water quality for local and regional needs.

Policy 1.2: Encourage practices that stress soil conservation as a means to retain native vegetation, maximize water infiltration, provide slope stabilization, allow scenic enjoyment, and reduce flood hazards.

City Municipal Code

Section 8.36 of the City's Municipal Code addresses stormwater and runoff pollution control measures.

4.10.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to hydrology and water quality if it would:

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the GPU may impede sustainable groundwater management of the basin;
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would; (i) result in substantial erosion or siltation on-or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or offsite; (iii) 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; or (iv) impede or redirect flood flows;
- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to GPU inundation; or,
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to scenic vistas, scenic resources, visual character/quality of the site, and views in the area, which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

Water Quality Standards

Impact HYDRO-1 – Would the GPU violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Analysis of Impacts

Water quality in the Planning Area and surrounding jurisdictions is regulated by a number of federal, state, and county laws and regulations. The Planning Area is primarily located in the Lower San Gabriel River sub-watershed area. The San Gabriel River receives drainage from 640 square miles of eastern Los Angeles County; its headwaters originate in the San Gabriel Mountains. The watershed is hydraulically connected to the Los Angeles River through the Whittier Narrows Reservoir though normally only during high storm flows. The lower part of the river flows through a concrete-line channel in a heavily urbanized portion of the County. Runoff from the Planning Area eventually reaches the San Gabriel River which has impaired water quality due pollutants, including metals (copper, lead, zinc) and selenium that are carried by stormwater. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials (such as galvanized steel) that are exposed to rain.

The City of Whittier is a co-permittee in the Los Angeles County National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit. Limited portions of the Planning Area are mapped as flood hazard zones with 0.2% annual chance of inundation. These areas include portions of Whittier Boulevard, Hadley Street, Palm Avenue, and Jacmar Avenue. To comply with the NPDES permit and reduce stormwater pollution, the City has implemented the following measures:

- Plan Review and implementation of Construction and Post-Construction Water Quality Best Management Practices (BMPs) for Development and Redevelopment;
- Low Impact Development (LID) Ordinance; Green Street Ordinance; Regenerative Street Sweeping; and
- Participation in the Gateway Region of Los Angeles LID BMP Program (installation of bioretention tree wells on Milton Avenue and Comstock Avenue).

In addition, the City is evaluating opportunities to install regional water quality BMPs at up to 15 local park sites.

The City's existing development review process evaluates proposed private projects against water quality and permitting requirements of the affected federal, state, and regional agencies.

2021 General Plan Update. Provided below are the proposed applicable GPU goals and policies related to water quality standards - please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.2 Enhance the urban forest along street corridors, in parks, and on City-owned properties to provide soil stabilization and erosion reduction as well as reduce flood hazards.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

RM-2.7: Reduce impermeable surface coverage citywide by replacement with natural vegetation and soils to reduce runoff and flood hazards.

RM-2.8: Access reliable data and information on water use (based on customer usage reports) and supply to evaluate water supply impacts and the needs of proposed development projects to promote effective decision-making.

RM-2.9: Encourage, facilitate, and/or require the use of water-conserving appliances and fixtures in new developments.

General Plan Analysis. Resource Management Element Goal 2 and its policies will help the City monitor and manage sources of potential short- and long-term water pollution. In support of this goal and polices, the City's development review process requires preparation of Storm Water Pollution Control Plans for short-term water quality management for individual project construction, as well as Water Quality Management Plans for long-term water quality management for project operation before any grading permits are issues.

Summary and Conclusions. With implementation of the General Plan goals and policies and the City's development review process, potential impacts related to local and regional water quality from future development within the Planning Area will be reduced to less than significant levels. In these ways the GPU would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

Level of Significance Before Mitigation

Mitigation Measures

None required.

Decrease Groundwater

Impact HYDRO-2 – Would the GPU substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the GPU may impede sustainable groundwater management of the basin?

Analysis of Impacts

Four water providers serve the Planning Area (see Section 4.19) and most of the water is supplied from groundwater aquifers in the San Gabriel Main Basin and Coastal Plain of the Los Angeles Central Basin. Since the majority of the Planning Area is built out, the four water service providers do not anticipate significant population growth or increases in demand. Planned capacity improvements within the Planning Area are primarily to maintain adequate fire flows (Whittier, 2017).

The Main Basin was adjudicated in 1973 which defined the water rights of 190 original parties to the legal action and created a new governing body, the Main San Gabriel Basin Watermaster, to administer the basin resources. The Los Angeles Central Basin was adjudicated in 1965 under similar circumstances and also has a separate Watermaster in charge of its resources.

The Urban Water Management Plan (UWMP) for each of the four local water serving agencies indicate the majority of the Planning Area is built out, so they do not anticipate significant population growth or large increases in water demand in the future. The 2021 GPU will increase the projected number of housing units and the population in the City over those projected in the 1993 General Plan. Conversely, the GPU projects substantially less growth in non-residential uses (e.g., commercial, office, light industrial) compared to that projected in the 1993 General Plan. The UWMPs of the four local water serving agencies were largely based on the land uses and growth projections of the 1993 General Plan. Therefore, the UWMPs of these agencies will need to be revised based on the new GPU land uses and projections.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to groundwater use - please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal 10: Safe and reliable potable and recycled water storage and distribution systems that meet current and future needs.

Policies

MI-10.1: Identify funding for and implement the planned water system improvements identified in the City’s 2018 Water System Master Plan. Update the Master Plan as needed in response to changing conditions; consider the unique needs of the Disadvantaged communities.

MI-10.2: Minimize leaks in the City’s water distribution system through regular monitoring, maintenance, and mitigation.

MI-10.3: Maintain the City’s water system to ensure adequate fire flows.

MI-10.4: Maintain and operate the City’s water storage and distribution system to provide for rapid recovery and reliable and sufficient emergency water supplies in the event of a disaster.

MI-10.5: Ensure the Suburban Water Systems and the Cal Domestic Water Company implements improvements to their systems that provide high-quality services to the Whittier Planning Area customers.

MI-10.6: Support the efforts of water reclamation agencies to provide reclaimed water service throughout Whittier.

MI-10.7: Use reclaimed water to irrigate parks, decorative fountains, and other public open space area.

The Project Description indicates the Planning Area’s baseline (2019) service population (residents plus employees) equals 174,866 persons while the growth projected under the GPU would yield a future (2040) service population of 196,451 persons. If each of these additional 21,585 residents and employees consumed an additional 150 gallons per person per day¹, the City’s growth would eventually require an additional 3.2 million gallons of (ground)water per day which would need to be provided by the City and the other three serving agencies.

Critical Groundwater Supply Analysis

The City’s primary source of water is groundwater. The following analyzes the City’s projected groundwater supply and demand to determine if there are any critical water supply issues that result from the increased population under the GPU. The City’s water system is the most appropriate to analyze as it provides water service to the greatest number of people within the Planning Area². The City’s UWMP assumes 65 percent of the City’s population is within its UWMP service area for 2015 through 2040. The UWMP indicates it is based on population projections obtained from the Southern California Association of Governments (SCAG) which incorporates demographic trends, existing land use, General Plan land use policies, and input and projections from the Department of Finance (DOF) and the US Census Bureau. The City owns and operates three active wells in the Main Basin (No. 13, No. 15, and No. 16) and two active wells in the Central Basin (No. 8 and No. 14). To date the City has not experienced water supply constraints or deficiencies, and management of the City’s primary groundwater supplies is based on legal adjudications of the groundwater basins. The UWMP states the City will be able to rely on the Main Basin, the Central Basin, and recycled water for adequate supply over

¹ Estimate from City UWMP

² 54 percent based on a City UWMP 2020 service population of 57,104 compared to the total Planning Area 2020 population of 106,014 persons.

the next 26 years under single year and multiple year droughts based on current management practices. However, Table 4.10-1 indicates the projected population increase under the proposed GPU would exceed the 2040 population estimate upon which the UWMP projected future service. The table also shows the amount of water that could be consumed by the projected population under the GPU (1,580 acre-feet) would be greater than the surplus water supply for 2040 (1,187 acre-feet) estimated in the UWMP.

**Table 4.10-1
Groundwater Supply Analysis for GPU Population**

Water-Related Characteristic	2020	2040¹	Difference
City-Wide Population (persons)	87,853	106,014	+18,430 / +21%
65 Percent ² of City-wide Population	57,104	68,909	+11,805 / +20.7%
City UWMP Service Area Assumption ³	56,900	59,500	+2,600 / +4.6%
UWMP Planning Surplus or Deficit ⁴	+204	+9,409	“Surplus”
Water needed to serve “surplus” population (acre-feet or AF) ⁵	+47 AF	+1,580 AF	NA
City Water Supply ⁶	9,272 AF	9,272 AF	0
City Water Demand ⁶	7,569 AF	8,085 AF	+516 AF / +6.8%
Supply Surplus or Deficit	+1,703 AF	+1,187 AF	“Surplus”
Can Water Supply meet the needs of the estimated population growth with GPU?	NA	No	
NOTES: 1 assuming GPU is approved 2 City UWMP estimates its water service area is 65% of City-wide population 3 Table 3-1 from City UWMP 4 Difference of UWMP Service Area Population compared to 65% of City-wide Population Estimate A “surplus” means the estimated population under the GPU is higher than the population estimate used for the UWMP 5 assumes each additional person consumes 150 gallons/person/day and one AF = 236,000 gallons 6 Table 7-2 from City UWMP			

It should also be noted the 1993 General Plan projected the Planning Area’s population to be approximately 96,023 persons in 2018 and the current population of the Planning Area in 2019 was 141,102 persons. This indicates the City has outpaced the growth assumptions for the 1993 General Plan upon which the various UWMPs for the Planning Area were based. Even if the three other water suppliers could meet the future needs of the residents and businesses within their respective portions of the Planning Area, the projected deficit of the City’s water supply represents a potentially significant impact that requires mitigation.

The UWMPs were last prepared around 2015-16 and must be updated every five years according to state law, so they are all due to be revised in the near future. When the UWMPs are next updated, the latest projections from the GPU will need to be incorporated. Since the

City only manages a portion of its (ground)water supply, it cannot fully control or mitigate the increased need for water under the GPU until the four UWMPs have been updated as planned. Until the City and other water serving agencies update their UMWPs to incorporate the new growth projections, the proposed GPU may have significant short- or long-term impacts regarding water service which may result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Summary and Conclusions. In addition to the proposed GPU Mobility and Infrastructure Element Goal C10 and its polices on water service, Mitigation Measure UTL-1 (from the Utilities Chapter – 4.19) will help reduce potential impacts related to groundwater supplies to less than significant levels.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

UTL-1 Water Demand Management. New developments under the General Plan Update that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plan for the involved local water provider.

Level of Significance After Mitigation

Less than significant.

Drainage

Impact HYDRO-3 – Would the GPU substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (a) result in substantial erosion or siltation on- or off-site; (b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (c) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems; (d) provide substantial additional sources of polluted runoff; or (e) Impede or redirect flood flows.

Analysis of Impacts

Alter Drainage Patterns. The Planning Area is primarily located in the Lower San Gabriel River sub-watershed area. The San Gabriel River receives drainage from 640 square miles of eastern Los Angeles County and its headwaters originate in the San Gabriel Mountains. The watershed is hydraulically connected to the Los Angeles River through the Whittier Narrows Reservoir though normally only during high storm flows. The lower part of the river flows through a concrete-line channel in a heavily urbanized portion of the County.

The overall development pattern of the City has been established for many years and is not likely to change dramatically in the future. Implementation of the GPU will continue existing trends and patterns, and sites that contain drainages will be evaluated in the CEQA and planning review processes to determine the most appropriate way to accommodate existing drainages. Similar to the overall development pattern, the overall drainage pattern and system of drainage and flood control channels will likely continue similar to existing conditions.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU relative to drainage modifications - please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

In addition, the City's development review procedures require new projects to be consistent with regulations of federal and state agencies regarding the design of drainage channels. Implementing these goals and policies, and continuing to implement the City's development review process, will allow the GPU will have less than significant impacts to drainage patterns.

Erosion/Siltation. Future development under the GPU will result in grading of vacant land or the demolition and regrading of developed land. Under either of those conditions erosion from wind and water can occur, especially if disturbed soils are left exposed for long periods of time. The Resource Management Element of the proposed GPU contains the following goal and policies which will continue to protect drainage and minimize erosion and siltation from new development under the GPU:

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

In addition, the City's development review procedures require new projects to be consistent with regulations of federal and state agencies regarding best management practices (BMPs) to protect water quality including erosion control. By implementing these goals and policies and continuing to implement the City's development review process, the GPU will have less than significant impacts to drainage patterns as they relate to erosion and siltation.

Increased Runoff. As outlined above, the overall development pattern of the City has been established for many years and is not likely to change dramatically in the future. A key design consideration of all new development is to not increase offsite downstream runoff by retention or detention onsite and by implementing low impact development where practical.

The Resource Management Element of the proposed GPU contains the following goal and policies which will continue to protect downstream properties from increased runoff from new development under the GPU:

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

In addition, the City's development review procedures require new projects to be consistent with flood control regulations and guidelines of federal and state agencies to protect downstream properties. Implementing these goals and policies, and continuing to implement the City's development review process, will allow the GPU to have less than significant impacts regarding increases in runoff.

Increased Pollution. The preceding sections conclude that future development under the GPU will have less than significant impacts in terms of altering drainage patterns, increasing erosion and siltation, and increasing downstream runoff. Therefore, the GPU will have less than significant impacts in terms of increased water pollution within the Planning Area.

Affect Flood Flows. The previous Exhibit 4.10-1 shows FEMA flood mapping zones for the Planning Area. Most of the Puente Hills is in "Zone D – Areas with possible but undetermined flood hazards - No flood hazard analysis has been conducted". Most of the City is in "Zone X - Areas of Minimal Flood Hazard" although there are several linear areas in the City, mainly along a number of streets, that are within a 100-Year flood limit. No portion of the City is within an identified 500-year flood zone (FEMA 2021). FEMA flood mapping shows very little of the City or

Planning Area at significant risk from flooding, so there is little potential for new development to substantially alter flood flows. Therefore, the GPU will have less than significant impacts relative to altering flood flows.

In addition, the Resource Management Element and Public Safety, Noise, and Health Element of the proposed GPU contains the following goal and policies which will continue to protect drainage and minimize flooding from new development under the GPU:

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

Public Safety, Noise, and Health Element

Goal 6: A community well protected from flood hazards.

Policies

PSHN-6.1: Maximize the resiliency of essential public facilities to risks and hazards of flooding.

PSHN-6.2: Evaluate the need to expand the capacity of flood control facilities to minimize flood hazards resulting from extreme weather events.

PSHN-6.3: Monitor the work of the Army Corps of Engineers' and other federal agencies' response plan to repair the Whittier Narrows Dam.

PSHN-6.4: Encourage natural flood control infrastructure and techniques to capture storm water, recharge aquifers, and prevent flooding near established drainage systems and channels.

PSHN-6.5: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

Summary and Conclusions. Based on the preceding analysis, the future development under the GPU and City development review process will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (a) result in substantial erosion or siltation on- or off-site; (b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (c) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems; (d)

provide substantial additional sources of polluted runoff; or (e) Impede or redirect flood flows. Therefore, impacts will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Flood Risk

Impact HYDRO-4 – Would the GPU be subject to flood hazard, tsunami, or seiche zones, and risk release of pollutants due to GPU inundation?

Analysis of Impacts

Flood Hazard. As shown in Exhibit 4.10-1, FEMA flood mapping indicates most of the Puente Hills is in “Zone D – Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted”. Most of the City is in “Zone X - Areas of Minimal Flood Hazard” although there are several linear areas in the City, mainly along a number of streets, that are within a 100-Year flood limit, including the northwest and southeast ends of Whittier Boulevard, a small central section of Palm Avenue, and along Hadley Street east of Whittier Boulevard. No portions of the City are within an identified 500-year flood zone (FEMA 2021). FEMA flood mapping shows very little of the City or Planning Area at significant risk from flooding, so there is little potential for significant release of pollutants within the Planning Area due to flooding.

Tsunami. The City and Planning Area are at elevations hundreds of feet above sea level (minimum 367 feet), and the City is located 15 miles inland of the Pacific Ocean. Therefore, the City has minimal to no risk from tsunamis and there is little potential for significant release of pollutants within the Planning Area from a tsunami.

Seiche. A seiche is a standing wave generated during earthquakes within enclosed bodies of water like reservoirs and lakes. As shown in Exhibit 4.10-2, inundation from failure of the Whittier Narrows Dam to the northwest would not cross the 605 Freeway into the City. However, a failure of the Hoover Reservoir would inundate only a small area in the northwest portion of the City. Therefore, seiches represent a very low risk to Planning Area residents and so there is little potential for significant release of pollutants within the Planning Area due to seiches.

Pollutant Release. The preceding analysis demonstrates the City and Planning Area have a very low risk of pollutants being released during flooding, a tsunami, or seiche (i.e., dam failure) within the region. Impacts are therefore less than significant. The existing Public Safety Element of the General Plan contained Goal 4 and Policies 4.1 to 4.4 to assure future development would not conflict with emergency planning or evacuation.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to flood, tsunami, or seiche hazards - please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

4.10 – Hydrology and Water Quality

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

RM-2.7: Reduce impermeable surface coverage citywide by replacement with natural vegetation and soils to reduce runoff and flood hazards.

RM-2.8: Access reliable data and information on water use (based on customer usage reports) and supply to evaluate water supply impacts and the needs of proposed development projects to promote effective decision-making.

RM-2.9: Encourage, facilitate, and/or require the use of water-conserving appliances and fixtures in new developments.

RM-2.10: Encourage the use of native and climate-appropriate and drought tolerant landscaping to reduce overall and per capita water demand.

RM-2.11: Reduce water consumption on a per capita basis.

Public Safety, Noise, and Health Element

Goal 1: A resilient community well prepared to minimize risks associated with natural hazards and disasters.

Policies

PSHN-1.1: Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

PSHN-1.2: Promote improved inter-jurisdictional consultation and communication regarding disaster or emergency plans of Los Angeles and Orange Counties, and for seismic safety upgrades of public facilities and infrastructure such as dams, reservoirs, and highway structures.

PSHN-1.3: Partner with neighboring cities, regional agencies, local school districts, Whittier College, local businesses, and community organizations to conduct emergency and disaster preparedness exercises that test operational and emergency response plans.

PSHN-1.4: Ensure operational readiness of the Emergency Operations Center (EOC) by conducting annual training for staff and maintaining, testing, and updating equipment to meet current standards.

PSHN-1.5: Train and educate public volunteers in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

Goal 6: A community well protected from flood hazards.

Policies

PSHN-6.1: Maximize the resiliency of essential public facilities to risks and hazards of flooding.

PSHN-6.2: Evaluate the need to expand the capacity of flood control facilities to minimize flood hazards resulting from extreme weather events.

PSHN-6.3: Monitor the work of the Army Corps of Engineers' and other federal agencies' response plan to repair the Whittier Narrows Dam.

PSHN-6.4: Encourage natural flood control infrastructure and techniques to capture storm water, recharge aquifers, and prevent flooding near established drainage systems and channels.

PSHN-6.5: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

Summary and Conclusions. Due to the relatively low risk to the Planning Area from flooding, tsunami, and seiche, there is little potential for significant release of pollutants from these sources, so impacts are less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Water Quality/Groundwater Plans

Impact HYDRO-5 – Would the GPU conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Analysis of Impacts

Water Quality Control Plan. The Water Quality Control Plan Los Angeles Region (Basin Plan) is the water quality control plan for the greater Los Angeles Basin, including the City of Whittier. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The Basin Plan is continually being updated to include amendments related to implementation of the total maximum daily load³ (TMDL) of specific potential pollutants or water quality stressors, revisions of programs and policies within the Los Angeles RWQCB region, and changes to beneficial use designations and associated water quality objectives.

The current General Plan and the GPU both require the City and future development within the Planning Area to be consistent with the Basin Plan. Therefore, the GPU will not conflict with or obstruct implementation of a water quality control plan.

Groundwater Management Plan. In 2014 the governor signed the Sustainable Groundwater Management Act (SGMA) into law which requires governments and water agencies of high and

³ TMDL is a regulatory term in the U.S. Clean Water Act, describing a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards

medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California. The two local Watermasters are currently in the process of determining if it will form or join a GSA to prepare GSPs for their respective groundwater basins. Once the GSPs are developed, the UWMPs of the four local water-serving agencies/companies will need to bring their UWMPs into compliance or consistency with the GSPs.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU related to water quality and groundwater plans - please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 2: Protect soil and water resources from poor management practices and pollution.

Policies

RM-2.1: Encourage soil conservation practices that retain native vegetation, maximize water filtration, and provide slope stabilization in the Puente Hills.

RM-2.3: Minimize the impact of human activity on the quality and availability of the water supply.

RM-2.4: Work with federal and state agencies to expedite the clean-up of local groundwater basins.

RM-2.5: Require the use of innovative stormwater best management practices in all new development, including water quality monitoring during construction projects in the vicinity of sensitive water resources.

RM-2.6: Encourage the use of site and landscape designs that minimize surface runoff and retain or detain stormwater runoff, minimizing volume and pollutant concentrations.

Summary and Conclusions. Once the GPU is adopted, the City will inform the local water serving agencies of its change in land use and growth projections under the GPU. This information will then contribute to the planning process of the two Watermasters and the subsequent GSPs for groundwater management in this region. In addition, **Mitigation Measure UTL-1** (from the Utilities Section) will help reduce future demand on groundwater resources from new development. Therefore, the GPU will not conflict with or obstruct implementation of a sustainable groundwater management plan.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact HYDRO-6 – Would the GPU cause substantial adverse cumulative impacts with respect to hydrology and water quality?

Analysis of Impacts

The Planning Area and surrounding communities contain a water-related hazards as well as surface and groundwater resources that must be protected. State law requires that the Safety Elements of city general plans, including Whittier, address potential flooding, erosion, changing drainage patterns, and other water-related hazards. In addition, the Open Space and Conservation Elements identify and coordinate with other agencies to protect surface and groundwater. The Safety Element of the current General Plan contains goals and policies which acknowledge these potential risks and require structures and infrastructure to provide adequate levels of safety for the community. The Resource Management Element and Public Safety, Noise and Health Element of the proposed GPU also contains goals and policies which will continue to identify and protect the community from flooding and other water-related hazards.

The General Plans for the surrounding cities and the County General Plan are all required to identify potential risks from flooding, geologic and seismic conditions and contain goals and policies to address these risks and protect the public. These goals and policies are intended to be consistent with state law and are similar to those of Whittier's General Plan. In addition to local general plans, various state laws including CEQA require the City as a lead agency to identify potential hazards related to new development as well as protect important water resources as development occurs in the future. Local water districts must prepare Urban Water Management Plans and Groundwater Sustainability Plans are required to provide long-term protection for both surface and groundwater supplies for the region.

In these ways, potential cumulative impacts to future development from flooding and water-related hazards will be minimized, and the protection of important regional water resources will be protected. In addition, **Mitigation Measure UTL-1** (from the Utilities Section) will help reduce future demand on groundwater resources from new development. Therefore, future development in the City of Whittier under the GPU will not make a significant contribution to any cumulative regional impacts on flooding or other water-related hazards and protect surface and groundwater resources in the future.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.10.5 REFERENCES

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4.11 – Land Use and Planning

This EIR chapter addresses land use and planning impacts associated with the proposed General Plan Update (GPU). Issues of interest are land use and planning impact: specifically, whether the GPU will physically divide an established community or cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.11.1 – ENVIRONMENTAL SETTING

Existing Land Uses

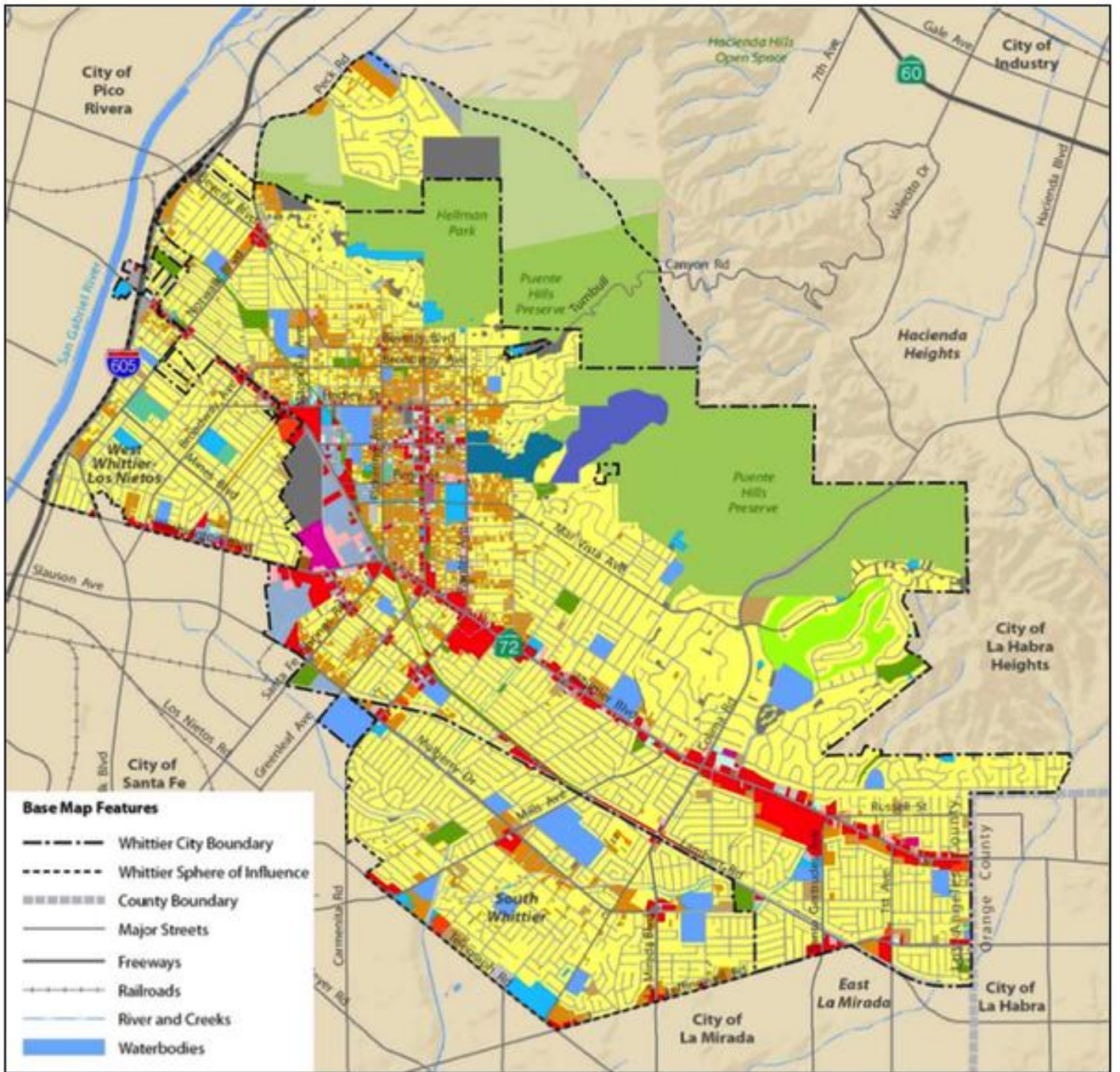
This Planning Area contains nearly 34,000 parcels encompassing almost 12,505 acres (not including street rights-of-way). Most development in the Planning Area is residential (6,979 acres, which accounts for more than half (55.8%) of the total land area. Park and open space uses make up more than one-quarter of the Planning Area (26.2%). Commercial and industrial land uses total 542 acres (4.3%) and 148 acres (1.2%), respectively (Whittier, 2017). The Planning Area has a variety of neighborhoods, each with a different feel and character. Uptown Whittier area is characterized by tree-lined, narrow, cobble-stoned roads. Typical buildings in the Uptown core include main floor retail uses, which often have office/commercial uses on upper floors. Residential development in Uptown is predominately smaller-scale multi-family buildings. Uptown is the oldest part of the Planning Area with many structures dating to the late 1800s and early 1900s.

The western-most portion of the Planning Area has a concentration of older structures around Whittier Boulevard (west of Magnolia Street), many of which were built in the 1930s and 1940s. The northern hillsides predominately have lower-density, single-family residential developments and natural open spaces. The Friendly Hills Country Club Golf Course is a prominent feature in the Friendly Hills area (near Colima Road, north of Whittier Boulevard). These areas have lot sizes larger than the more urbanized parts of the Planning Area. Very little commercial development is located in these areas.

Commercial development is also prominently located along Whittier Boulevard, Washington Boulevard, and Lambert Road. The neighborhoods behind these corridors are primarily single-family residential with a lower-density, suburban feel. Homes in the eastern part of the Planning Area are newer, with many structures built in the 1950s and 1960s. While Whittier is mostly built out, cluster of vacant lands can be found in Uptown along Hadley Avenue and scattered smaller lots along Greenleaf Avenue (Whittier, 2017). The acreage associated with existing land uses within the Planning Area are shown in Table 4.11-1 (Existing Land Uses). **Exhibit 4.11-1** (Existing Land Uses) illustrates the location of existing land uses within the Planning Area, **Exhibit 4.11-2** (Current Zoning Map) shows the existing zoning within the Planning Area, and **Exhibit 4.11-3** (Current General Plan Land Use Map) shows the existing land use designations within the Planning Area.

**Table 4.11-1
Existing Land Uses (2017)**

Land Use	Acres	% of Planning Area
Residential	6,979.1	55.8%
Residential, Single-Family	6,176.7	49.4%
Residential, Duplexes and Triplexes	297.7	2.4%
Residential, 4+ Units	450.2	3.6%
Homes for Aged and Others	12.4	0.1%
Manufacturing Housing	26.9	0.2%
Other Residential	15.0	0.1%
Commercial	542.1	4.3%
Retail and Commercial Services	144.5	1.2%
Shopping Centers	164.3	1.3%
Restaurants, Fast Food	39.4	0.3%
Auto Services/ Service Stations	52.9	0.4%
Office (Professional/ Medical)	90.7	0.7%
Financial Institutions (Banks)	9.3	0.1%
Public Storage	22.5	0.2%
Hotel/Motel	10.8	0.1%
Parking Lots (assoc. w/ Commercial)	4.9	0.0%
Other Commercial	2.7	0.0%
Industrial	148.3	1.2%
General Industrial	7.9	0.1%
Light Manufacturing	69.1	0.6%
Heavy Manufacturing	21.5	0.2%
Warehousing, Distribution, Storage	47.8	0.4%
Other Industrial	2.1	0.0%
Parks and Open Space	3,276.2	26.2%
Parks	155.4	1.2%
Open Space	2,290.6	18.3%
Golf Course	144.1	1.2%
Cemetery	686.2	5.5%
Public Facilities and Institutions	960.4	7.70%
Government Facilities	144.4	1.2%
Utilities	10.6	0.1%
Hospitals and Clinics	34.9	0.3%
Religious Institutions/ Facilities	131.1	1.0%
Landfill	129.2	1.0%
Other	1.5	0.0%
Public Schools	404.7	3.2%
Private Schools	32.0	0.3%
Colleges	72.0	0.6%
Other	262.0	2.1%
Mixed-Use	7.2	0.1%
Parking Lots	57.4	0.5%
Club, Hall, Fraternal Organization	7.6	0.1%
Other Users	189.7	1.5%
Vacant	337.9	2.7%
Vacant Residential	109.3	0.9%
Vacant Government Property	74.3	0.6%
Vacant Open Space/ Cemetery	115.0	0.9%
Vacant Other	39.3	0.3%
Total	12,506	100%



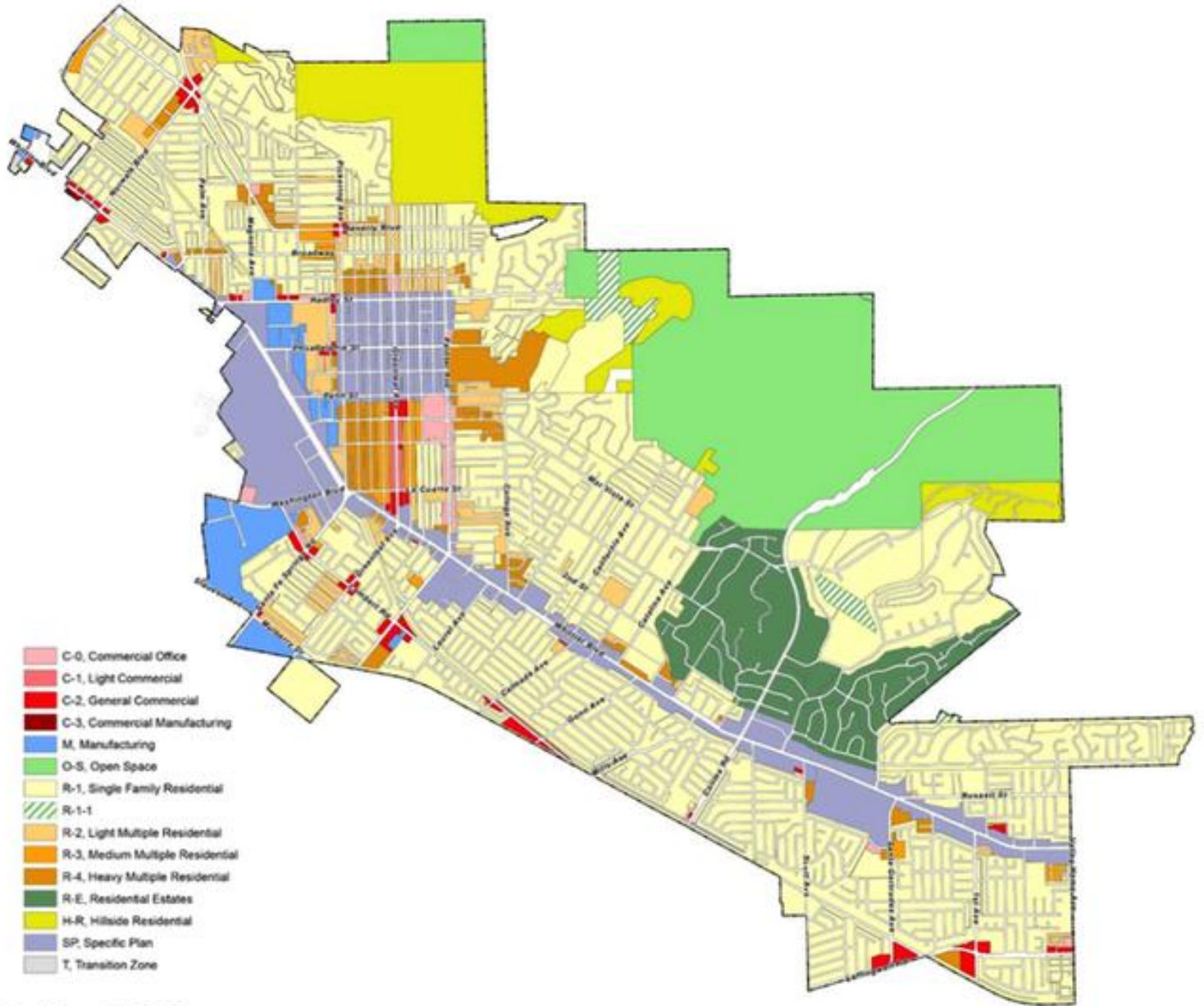
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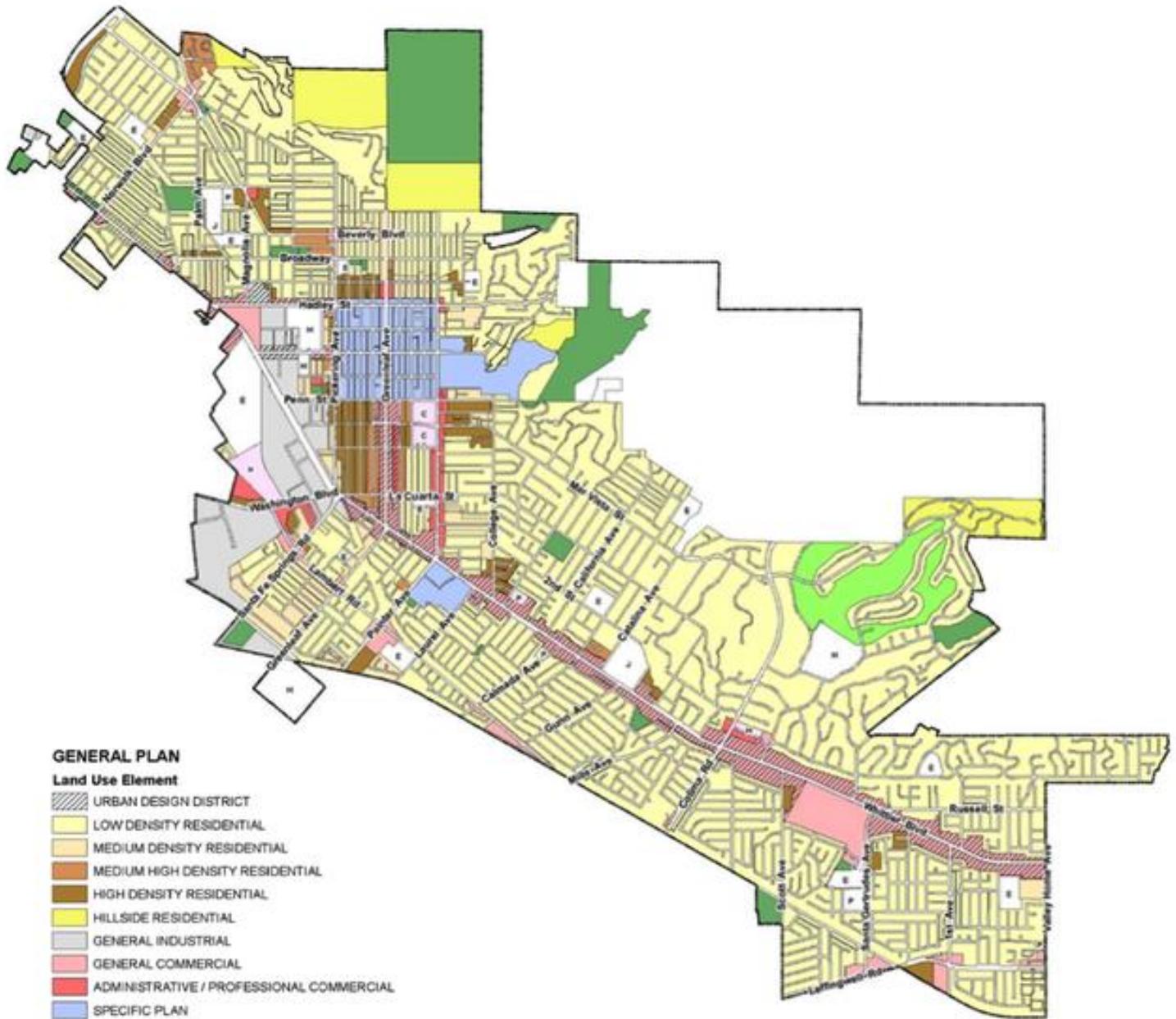
Exhibit 4.11-1 Existing Land Uses (2017)

Whittier General Plan Update
Whittier, California

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GENERAL PLAN

Land Use Element

- URBAN DESIGN DISTRICT
- LOW DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- MEDIUM HIGH DENSITY RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- HILLSIDE RESIDENTIAL
- GENERAL INDUSTRIAL
- GENERAL COMMERCIAL
- ADMINISTRATIVE / PROFESSIONAL COMMERCIAL
- SPECIFIC PLAN
- C CIVIC CENTER
- H HOSPITAL
- L LIBRARY
- P POST OFFICE
- E ELEMENTARY SCHOOL
- H HIGH SCHOOL
- J JUNIOR HIGH SCHOOL
- P PRIVATE SCHOOL
- GOLF COURSE
- PARK
- OPEN SPACE



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Residential Land Uses

Making up the largest land use category (55.8% of the Planning Area or 6,979 acres), residential uses are found throughout the Planning Area. Single-family (one unit) residential uses make up the bulk of the residential category (6,176 acres). Multi-family residential uses (more than one unit per development/lot) can also be found in various parts of the Planning Area. Multi-family housing is more prevalent in the areas generally north of Whittier Boulevard and east of College Avenue which encompasses Uptown. South of Whittier Boulevard, multi-family housing is more prevalent east of Painter Avenue. In other parts of the Planning Area, multi-family housing generally occurs along major roads and key intersections. Senior housing and manufactured (mobile home) developments make up a very small proportion of all land uses (0.3% combined) (Whittier, 2017).

Commercial and Industrial Land Uses

Commercial areas make up 4.3 percent of the Planning Area land uses. Most commercial uses are located along Whittier and Washington Boulevards and in Uptown along Greenleaf Avenue. Commercial clusters are also found at major intersections. Office uses occur in these same areas, with a concentration along Painter Avenue north of Whittier Boulevard. The most prevalent commercial uses are retail establishments and shopping centers, followed by office uses. Major shopping centers along Whittier Boulevard include the Whittwood Town Center (at Santa Gertrudes Avenue), the Quad (at Painter Avenue), and the Marketplace (between Philadelphia and Hadley Streets). Most industrial land in the Planning Area is located within City limits. The majority of the Planning Area industrial land is dedicated to light manufacturing and ancillary warehouse/ distribution/ storage (Whittier, 2017).

Park and Open Space Land Uses

Park and open space land uses make up one quarter of the land use acreage in the Planning Area. Parks and open space include Puente Hills open space, City parks, Whittie Greenway Trail, and the Friendly Hills Country Club golf course (Whittier, 2017).

Public Facilities and Institutional Land Uses

Public and quasi-public uses include schools (public and private), churches, hospitals, government offices, and utilities. The total land area devoted to public facilities and institutional uses is 452 acres or 3.6% of the Planning Area. Public and private schools (K-12) occupy 437 acres of the Planning Area (3.5%). Whittier college, located along Painter Avenue in Uptown and encompassing 72 acres, is the only college in the Planning Area. Although it has a Whittier address, Rio Hondo College is located outside the Planning Area. The Savage Canyon Landfill, located in the north central portion of the Planning Area just east of Whittier College, covers 129 acres. Hospital uses total 34 acres and include two major hospitals, PIH Health Hospital (28 acres) and Whittier Hospital Medical Center (3.7 acres). Several nursing/convalescent homes and other hospital support facilities are scattered across the Planning Area (Whittier, 2017).

Other Land Uses

Other land uses such as parking lots, fraternal organization facilities, and mixed-use properties occupy just over 72 acres. The bulk of the unclassified land uses can be attributed to railroad right-of-way along Lambert Road and a series of concrete-channeled creeks in the southern portion of the Planning Area (Whittier, 2017).

Vacant Land

As noted above, little vacant land remains within the City. Vacant properties are located primarily in the single-family residential areas in the northern hillsides and on unimproved or undeveloped land. In July 2015, the City adopted the Lincoln Specific Plan for a 75.6-acre property designated as vacant. The land houses the Fred C. Nelles Youth Correctional Facility buildings on Whittier Boulevard, which are no longer in use.

Specific Plans

Specific Plans implement a city or county's general plan by establishing detailed regulations for a defined area. Specific Plans are put in place to regulate distinct character areas that cannot be regulated through general development ordinances or citywide zoning. As shown in **Exhibit 4.11-4** (Specific Plans) and described below, there are four Specific Plans currently in effect within the Planning Area: the Whittier Boulevard Specific Plan (WBSP), the Uptown Whittier Specific Plan (UWSP), the Whittwood Center Specific Plan (WCSP), and the Lincoln Specific Plan (LSP).

The WBSP, originally adopted in 2005, was last amended in 2015. The Specific Plan designates five land-use districts: Gateway Segment, Workplace District, Shopping Cluster District, Center District, and Neighborhood Spine District. The plan also includes a Workplace District Residential Overlay Subarea and street and landscape design enhancements for Whittier Boulevard.

The UWSP, originally adopted in 1989, was last amended in 2014. The UWSP promotes a highly walkable environment, that follow six strategies for development. The UWSP strategies aim to: 1) strengthen existing retail and introducing new national-brand retail, 2) provide an efficient shared parking system, 3) increase housing choices, especially ownership types, 4) transform churches into catalysts for affordable housing and mixed-use development, 5) enable economic and social partnerships with Whittier College, and 6) develop a distinct sense of identity through design standards for development, improved landscaping, and increased safety with the presence of a resident population.

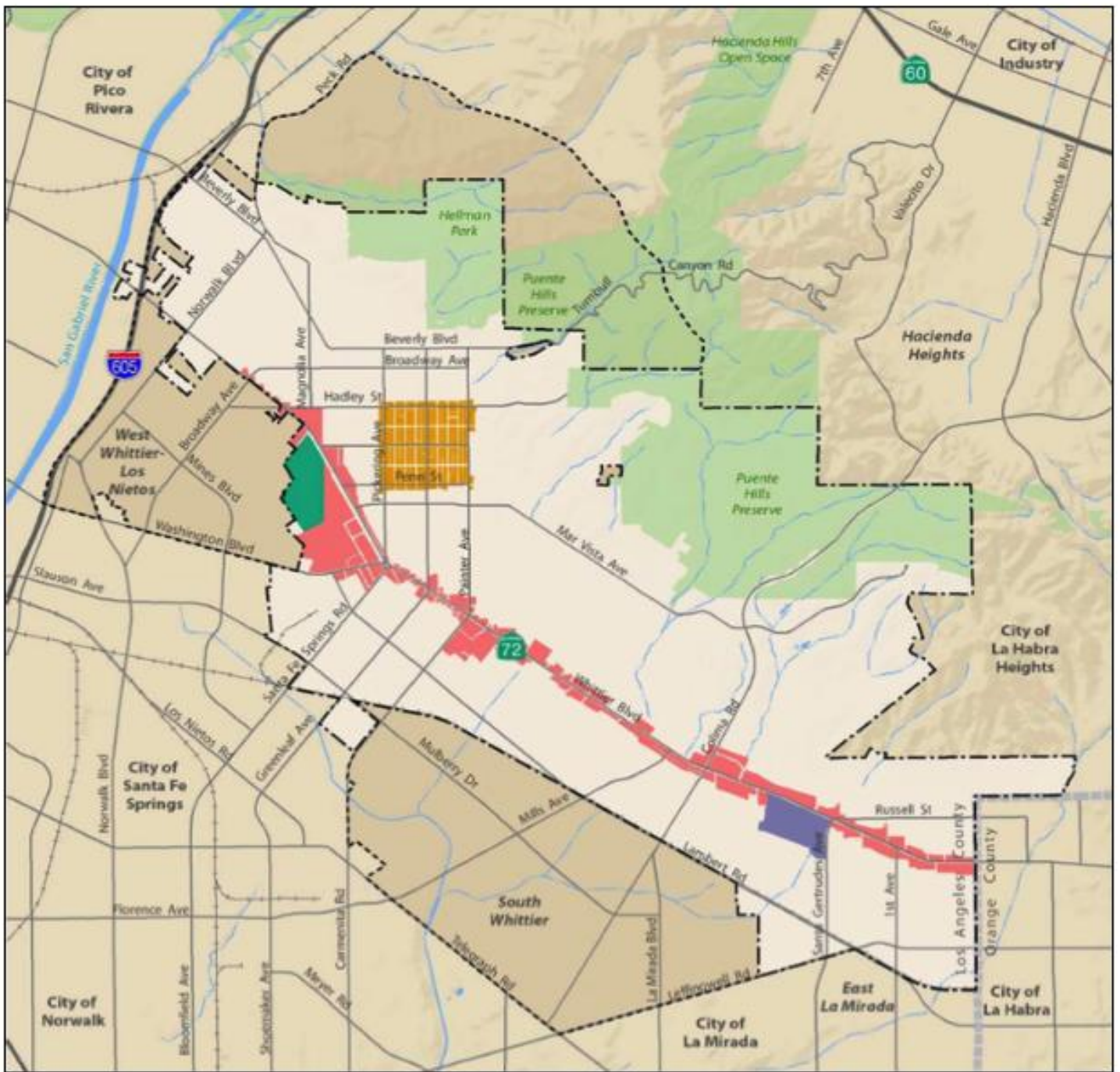
The WTCSP, originally adopted in 2003, was last amended in 2012. The WTCSP grew from the City's desire to revitalize the Whittier Boulevard commercial corridor and landscape treatments in the Whittwood Center, while creating a sense of place and a central activity focus. The 66.4-acre Whittwood Town Center has been developed into a mixed-use center integrating residential, commercial retail, landscaping, and circulation improvements.

The LSP was adopted in 2015 for the former site of the Fred C. Nelles Youth Correctional Facility. The State entered into a Purchase and Sale Agreement with Brookfield Homes, which received approval to develop the 74-acre site with new residential, parks, and retail development.

Exhibit 4.111-5 shows the land use plan under the proposed GPU.

NOP Comments

A letter from the Southern California Association of Governments (SCAG) was received on June 1, 2021 that provided demographic information about the City relative to the Southern California region and encouraged the General Plan EIR to evaluate consistency with SCAG's regional planning documents, including the Regional Transportation Plan (RTP) and the Sustainable Communities Strategy (SCS). The following sections evaluate those issues as requested by SCAG.



Specific Plans

- Lincoln
- Whittier Boulevard
- Whittier Uptown
- Whittwood Town Center

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas



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Exhibit 4.11-4 Specific Plans
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 Whittier, California

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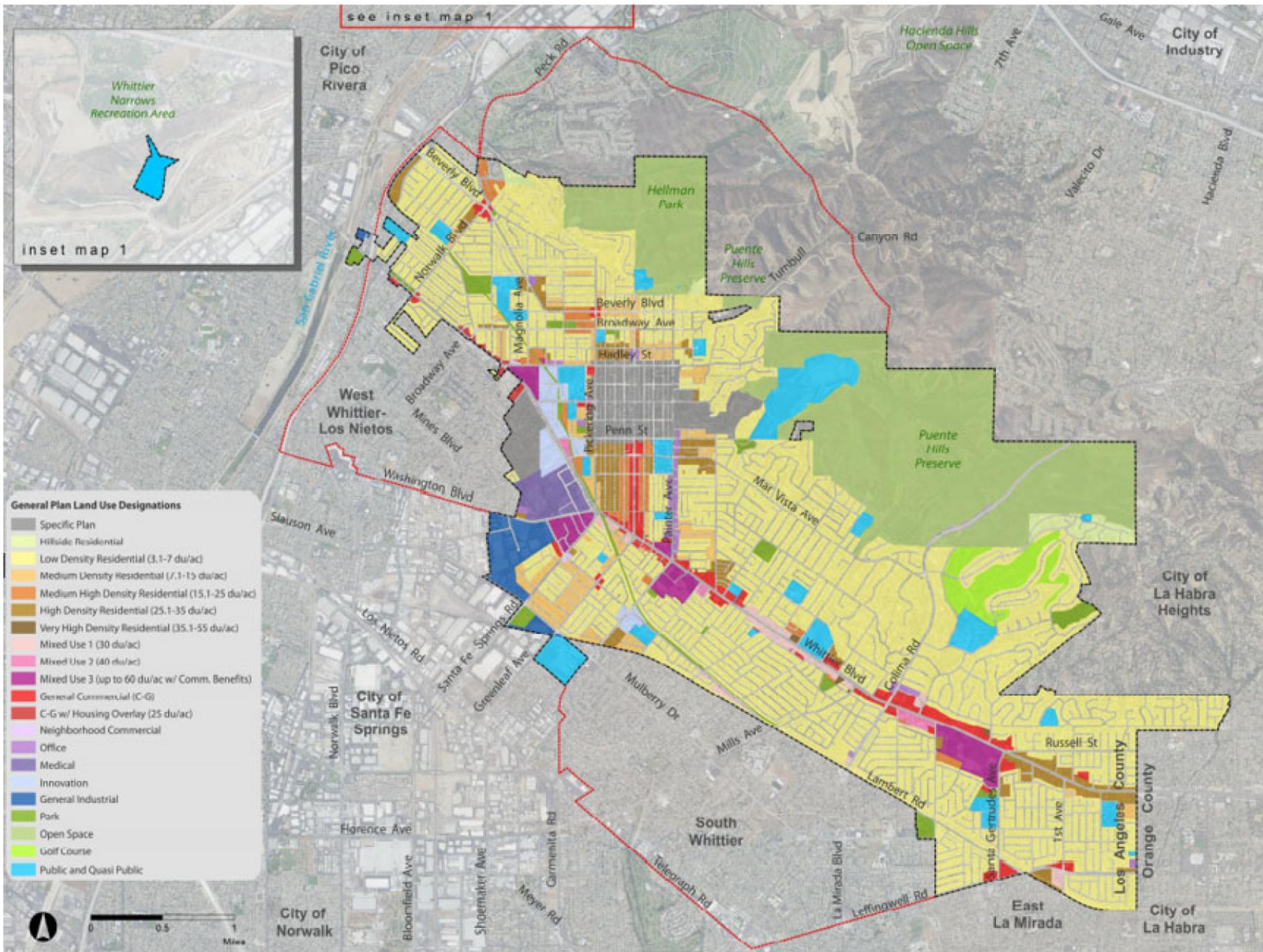


Exhibit 4.11-5 Proposed Land Use Plan
Whittier General Plan Update
 Whittier, California



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In addition, a number of residents expressed concerns about the City increases housing densities, especially in their neighborhoods.

4.11.2 – REGULATORY FRAMEWORK

Federal

Clean Air Act

The Federal Clean Air Act was enacted to protect and enhance air quality and promote the health and welfare of the public. The United States Environmental Protection Agency (EPA) has established ambient air quality standards for certain criteria pollutants, which are generally implemented by state and local agencies.

Clean Water Act (Section 404)

Section 404(b) of the Federal Clean Water Act was established to preserve water quality and discourages the alteration or destruction of wetlands. This act requires that the United States Army Corps of Engineers (Army Corps) evaluate the impacts of discharge of dredged or fill materials into any water of the United States (U.S.). The Army Corps Wetlands Policy requires the implementation of mitigation measures for any impacts to designated wetland areas.

National Pollutant Discharge Elimination System Permit Program

The National Pollutant Discharge Elimination System (NPDES) program requires the owner or operator of any facility, or person responsible for any activity that discharges waste into the surface waters of the U.S. to obtain a NPDES permit from the Regional Water Quality Control Board, as mandated by the National Clean Water Act. The existing NPDES (Phase 1) stormwater program requires municipalities serving greater than 100,000 persons to obtain a NPDES storm water permit for construction projects greater than five acres. Proposed NPDES storm water regulations (Phase II) expand this existing national program to smaller municipalities with populations of 10,000 or more and construction sites that disturb greater than one acre of land.

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) was passed in 1973 and is administered by the U.S. Department of Fish and Wildlife Service. The ESA provides a process for listing species as endangered or threatened and establishes requirements for the protection of all listed species.

State

California Wetlands Policy

The State Wetlands Policy, administered by the California Department of Fish and Wildlife under Fish and Game Code Sections 1601 to 1606, protects marshlands and other designated wetland areas, and requires mitigation for disturbance of wetland areas.

California Endangered Species Act

Similar to the Federal ESA, the California Endangered Species Act (CESA) was created to protect rare, threatened, and endangered species in California. The CESA was enacted in 1984 and is administered by the California Department of Fish and Wildlife.

Regional

A number of regional plans influence land use planning in the City of Whittier. Regional

4.11 – Land Use and Planning

plans/policy created by planning agencies such as the Southern California Association of Governments (SCAG) and the South Coast Air Quality Management District (SCAQMD) are discussed below.

Southern California Association of Governments (SCAG) Regional Plans and Policies

The Southern California Association of Governments (SCAG) is responsible for regional planning in the southern California area. SCAG provides a framework to coordinate local and regional decisions regarding future growth and development and prepares future growth forecasts for the region. As the designated Metropolitan Planning Organization (MPO) for the area, SCAG is mandated by the Federal government to research and develop plans for transportation, growth management, hazardous waste management, and air quality based on the regional growth projections. SCAG is responsible for the production of a Regional Comprehensive Plan and Guide, a Regional Transportation Plan/Sustainable Communities Strategy, Regional Transportation Improvement Plan, and Growth Vision Report. SCAG's Regional Council adopted the 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy (2020 RTP/SCS or Plan) which is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals.

As SCAG is the largest MPO in the United States, it has subregional councils of government to provide for the subregions' land use and transportation planning at a more local level. The sub-regional council for Whittier is the Gateway Cities Council of Governments (GCCOG).

2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS) is a long-term vision of how the region will address regional transportation and land use challenges and opportunities. The 2020 RTP/SCS identifies goals, which are intended to help carry out the vision for improved mobility, a strong economy, and sustainability. The guiding policies for the 2020 RTP/SCS are intended to help focus future investments on the best-performing projects and strategies to preserve, maintain, and optimize the performance of the existing transportation system.

South Coast Air Quality Management Plan

In addition to SCAG, the South Coast Air Management District (SCAQMD) is responsible for the production of a regional Air Quality Management Plan (AQMP) and has prepared multiple AQMPs to accomplish the goal of an annual five-percent reduction in air pollutant emissions. The most recent AQMP was published and adopted in 2017 (AQMD 2016). The AQMD is currently in the process of developing the next AQMP.

Local

City of Whittier General Plan

The Land Use and Housing Elements of the current 1993 General Plan contains the following goals and policies related to land use and growth in the Planning Area:

Goal 1: Establish an orderly, functional, and compatible pattern of land uses to guide the future growth and development of Whittier and its sphere of influence, in order to provide a high quality of life for the people.

Policy 1.1: Encourage land uses in the planning area that contribute to making Whittier a desirable community in which to live.

Policy 1.2: Encourage development in the City that is compatible with surrounding uses, provides for civic improvements, increases the potential for future investment, and fulfills the need for high quality residential areas and shopping and employment centers.

Policy 1.3: Conduct and carry out appropriate environmental review for new development and substantial renovation of existing developments.

Policy 1.4: Establish guidelines for land use compatibility in all city ordinances and regulations.

Policy 1.5: Infill development must be sensitive to adjacent land uses to promote compatibility between the new development and existing uses.

Policy 1.6: Promote adaptive re-use of historic structures, where appropriate.

Goal 2: Develop and maintain cohesive, clean, safe, and stable residential neighborhoods in Whittier.

Policy 2.1: Provide city programs to encourage neighborhood or community beautification, safety, and improvement, and continue to encourage Whittier residents to participate and take pride in their neighborhoods and their community.

Policy 2.2: Continue to develop and implement, where appropriate, programs to promote the preservation and rehabilitation of existing housing units.

Policy 2.3: Promote a high degree of personal safety in all residential neighborhoods through design that is sensitive to public safety.

Policy 2.4: Preserve the character of existing neighborhoods and ensure that future residential development is compatible with the surrounding area and the City as a whole.

Policy 2.5: Promote the development of quality housing at a variety of densities, with consideration for the environment, aesthetics, and the need for maintaining and expanding the infrastructure's capacity.

Policy 2.6: Encourage the assemblage of lots to promote the efficient use of land in areas where multiple family housing is permitted, to facilitate the development of high quality housing.

Policy 2.7: Consider the capacity of existing infrastructure and the potential demand for public services in future planning and review of new development.

Policy 2.8: Continue to implement ongoing planning efforts and continue to work with private groups and organizations in the implementation of development plans.

Goal 3: Promote the development and maintenance of retail and service facilities which are convenient to residents of Whittier, provide the widest possible selection of goods and services, and supplement the City's tax base.

Policy 3.1: Promote convenient access and adequate parking areas in all commercial and retail developments and districts.

Policy 3.2: Encourage the grouping of commercial activities to facilitate access and provide beneficial concentrations of businesses.

Policy 3.3: Improve, protect, and maintain the visual and aesthetic qualities of commercial areas through the control of design, signs, parking, landscaping, and other factors.

Policy 3.4: Discourage large temporary signs and signs that are not directly related to existing commercial buildings (billboards and off-site signs).

Policy 3.5: Encourage the establishment and retention of businesses which provide customers with a variety of high quality goods, reasonable prices and outstanding service.

Policy 3.6: Encourage the development and retention of attractive, safe, and comfortable business buildings and commercial districts.

Policy 3.7: Require high quality design in new commercial development including the use of buffer zones (such as parks, landscaped areas, walls, and high density residential development) between commercial and single-family developments. Encourage the landscaping of blank walls to improve their appearance and to discourage vandalism.

Policy 3.8: Encourage building design that promotes energy conservation and efficiency.

Policy 3.9: Consider the capacity of existing infrastructure and the potential demand for public services in future planning and review of new development.

Goal 4: Encourage the maintenance and continued improvement of industrial areas which support and enhance the physical and economic well-being of Whittier.

Policy 4.1: Encourage new industrial development to be sensitive to adjacent or nearby properties and to be compatible with the environment.

Policy 4.2: Improve the City's industrial and employment base to meet the needs of Whittier.

Policy 4.3: Require high quality design in new industrial developments and promote the use of buffer zones between industrial areas and sensitive uses such as schools, parks, or residential areas.

Policy 4.4: The City will cooperate with county, state, and federal agencies in protecting local groundwater resources, air quality, and other environmental resources from the adverse effects of industrial development.

Policy 4.5: Encourage industrial development to exceed development standards.

Policy 4.6: Consider the capacity of existing infrastructure and the potential demand for public services in future planning and review of new development.

Goal 5: Provide a wide range of safe, attractive and accessible recreational opportunities to meet the needs of individuals of all ages, families, community groups, and the physically challenged who live in the City.

Policy 5.1: Develop and retain parks and recreation areas throughout the City to serve the greatest number of residents.

Policy 5.2: Acquire appropriate sites for recreational activities and land for urban or wilderness parks when possible.

Policy 5.3: Develop parks and recreational facilities to complement and support other community facilities.

Policy 5.4: Develop park facilities in areas where there are identified deficiencies.

Policy 5.5: Avoid the destruction of an existing park, unless another park of larger size is created in the immediate vicinity.

Goal 6: Encourage the retention and development of parkways, median strips, green belts, bike trails, and other open landscape areas, which provide scenic variety and aesthetic improvement.

Policy 6.1: Promote the retention and development of landscaped buffer zones along major thoroughfares, streets, and railroad lines.

Policy 6.2: Promote the maintenance and development of sidewalks and planted parkways along Whittier's streets and promote the planting and maintenance of parkway trees.

Policy 6.3: Promote the conversion of both active and abandoned railroad right-of-way to multi-use trails, greenbelts, and other recreation open space uses, where appropriate.

Policy 6.4: Promote the preservation of important ecological resources within the planning area through a variety of means, including setting aside areas for open space, trails, and recreational uses.

Policy 6.5: Work with property owners and government agencies to promote the preservation of as much of the Puente Hills as possible, for both passive and active recreation.

Goal 7: Promote mixed-use development in those areas of the City, so designated, to provide additional housing and to assist in the revitalization of commercial districts.

Policy 7.1: Encourage housing development with commercial uses in the designated Urban Design Districts where lots are underutilized or contain deteriorating commercial and industrial developments.

Policy 7.2: Encourage the development of "mixed-use" projects that include commercial and residential uses in areas with excess retail space, including areas along South Greenleaf, Penn Street, Philadelphia Street, Hadley Street, and Whittier Boulevard and ensure that the design and signage is sensitive to surrounding uses.

Goal 8: Preserve existing institutional land uses in the City.

Policy 8.1: Continue to preserve and maintain institutional uses to serve the current and future residents in the City.

Policy 8.2: Work with institutions (churches, schools, etc.) to support the services they provide and ensure that institutional developments are compatible with the community.

4.11.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU have a significant impact related to land use and planning if it would:

- a) Physically divide an established community;
- b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

4.11.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to land use policies, plans or regulations, which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

Divide Established Communities

Impact LAND-1 – Would the GPU physically divide an established community?

Analysis of Impacts

The proposed GPU would not physically divide an established community. In addition, the Land Use and Community Character Element of the proposed GPU contains goals and policies intended to maintain the cohesiveness of the Planning Area. Provided below are the applicable goals and policies of the proposed GPU that relate to dividing established communities - please see Appendix B for the full text of each goal or policy.

Land Use and Community Character Element

Goal 1: A city of complete neighborhoods.

Policies

LUCC-1.1: Retain the unique characters of long-established residential neighborhoods.

LUCC-1.2: Maintain the quality and character of established housing stock and historic residential neighborhoods.

LUCC-1.3: Accommodate population growth and projected demographic shifts with a range of housing options.

LUCC-1.4: Require new and infill development be sensitive to neighborhood context, building form, and scale.

LUCC-1.5: Ensure all residential streets provide a safe, comfortable, and enjoyable pedestrian experience, with design elements to include street trees and sidewalks.

LUCC-1.6: Identify transition areas between lower-density land uses adjacent to higher-intensity development to ensure new and infill development transitions well to established uses.

LUCC-1.7: Provide City programs that encourage neighborhood beautification and residents' efforts to participate and take pride in their neighborhoods.

Goal 2: A network of great streets and public spaces that encourage social and economic activity.

Policies

LUCC-2.1: Activate and improve the pedestrian experience along Whittier Boulevard and Lambert Road (see Figure LUCC-1) by applying the following:

- o Separate potentially conflicting uses (vehicular, pedestrian, bicycle, etc.).
- o Prioritize pedestrian facilities and amenities.
- o Implement designated land uses (scale, density/intensity, intent, character, and built form).

LUCC-2.2: Establish a continuity of streetscapes along Whittier Boulevard and Lambert Road that define the public realm, are scaled to the pedestrian experience, and reflect the City's cultural identity through public art, street furniture, landscaping, architectural character, materials, etc.

LUCC-2.3: Concentrate mixed-use development at designated nodes and catalyst sites (see Figure LUCC-1) along Whittier Boulevard and Lambert Road to provide opportunities for clustering similar and compatible uses, support economic development, and create and maintain vibrant pedestrian-oriented spaces and experiences.

LUCC-2.4: Develop objective design standards and guidelines for each land use designation within the Whittier Municipal Code, ensuring the integration of the intent, character, and built form considerations outlined in this General Plan.

Goal 3: Distinctive and successful mixed-use and transit-oriented districts.

LUCC-3.1: Continue to encourage private and public investment in Uptown, with public improvements that support pedestrian activity, park-once strategies, and the enjoyment of being outdoors. Ensure that land use policies for Uptown allow for a diversity of businesses and residential densities that meet housing needs for people in all life stages.

LUCC-3.2: Support the reinvention of aging commercial properties as mixed-use developments and districts that integrate housing, retail, dining, entertainment, and office in both vertical and horizontal configurations, and that provide connections among all uses within the developments/districts.

LUCC-3.3: Promote development surrounding the Metro L Line station that provides transit-supportive housing types/densities and businesses that contribute to a lively living environment.

LUCC-3.4: Encourage the growth of medical-related and health care businesses surrounding the PIH Health Hospital – Whittier to create a regional center for medical care, research, and technology businesses.

LUCC-3.5: Update the Whittier College Master Plan/Specific Plan to provide for the college to integrate well into the surrounding neighborhood and serve as a continuing asset to the greater Uptown area and Whittier as a whole.

Goal 4: A dynamic mix of businesses, uses, and employment that sustains a strong local economy, with design qualities that contribute to their success.

LUCC-4.1: Advocate for and support local and small businesses and business owners.

LUCC-4.2: Provide a balance of business opportunities and housing choices that make it easy for persons of all income ranges to live and work in Whittier.

LUCC -4.3: Facilitate the growth of a diverse business sector resilient to change over time and compatible with a broad range of skills and workers.

LUCC-4.4: Create concentrated employment centers along major corridors to provide opportunities for innovation, investment, and growth.

LUCC-4.5: Require new and renovated employment center developments along Whittier Boulevard, Colima Road, and Lambert Road to:

- o Incorporate accessory uses such as public open space and/or trails, transit amenities, childcare facilities, and supportive retail uses based on the size and location of development.
- o Include design features to accommodate safe and convenient walking, biking, and transit use, including:

4.11 – Land Use and Planning

- interconnected system of streets and walkable blocks with ample space for walking, a landscaped buffer protecting pedestrians from street activity, and street furniture and amenities
- innovative parking solutions that reduce surface parking lots, relocate parking away from the street edge, and encourage parking structures and shared parking programs
- buildings with primary entrances facing public streets and/or sited around public plazas, courtyards, walkways, the Greenway Trail, parks, open spaces, etc.
- extensive on-site landscaping
- coordinated and well-designed wayfinding signage ▪ pedestrian-scaled lighting to promote activity.

The goals and policies of the GPU will help existing neighborhoods to remain cohesive and allow new development in the future to create additional cohesive neighborhoods for residents and businesses. In these ways the GPU will not physically divide established neighborhoods now or in the future.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Existing Plans, Policies or Regulations

Impact LAND-2 – Would the GPU cause a significant environmental impact due to a conflict with any land use plan, policy, or regulations adopted for the purpose of avoiding or mitigating an environmental effect?

Analysis of Impacts

According to Section 3.5 of the Project Description, the 2040 planning horizon for the Planning Area is estimated to result in increases over existing land uses of approximately 472 single family dwellings, 7,023 multifamily dwellings, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. This will result in an estimated increase of approximately 20,190 residents and 1,396 jobs projected for the 2040 horizon year.

The 2021 GPU will change land uses in the City over time by substantially increasing the amount of residential uses and housing units over those projected in the 1993 General Plan. Conversely, the GPU represents substantially less growth in non-residential uses (e.g., commercial, office, light industrial) and employment in the future compared to that projected in the 1993 General Plan. These changes in anticipated growth are a result of the City's increased Regional Housing Needs Assessment (RHNA) housing allocation from SCAG, which is based on the state's desire to encourage more housing throughout the state.¹ SCAG's VMT policies

¹ At a press conference on September 19, 2020, the Governor stated that over the past decade, California has averaged less than 100,000 new homes per year, significantly slower than that of most other states. Gov. Newsom then set a goal of 3.5 million new housing units to be built by 2025 or about 500,000 units per year. He outlined a suite of proposals he hoped would make it easier for builders to build such as altering the state's oft-abused environmental-impact law (CEQA) to allow more housing, revamping how local governments get their tax dollars and clamping down on cities that obstruct new construction [Sacramento Bee, September 20, 2020].

are meant to encourage local jurisdictions to reduce job commute trip lengths by adding land uses that produce jobs if they are housing/jobs poor (i.e., local jobs/housing ratio is less than the 1.15 regional average) or by adding residential land uses that increase housing in jurisdictions that are jobs rich/housing poor (i.e., local jobs/housing ratio is greater than the 1.15 regional average). These land use changes are eventually expected to better balance the local supply of housing to jobs and reduce VMT on a regional basis.

The 2020-2045 RTP was based on the land uses and growth projections of the 1993 General Plan so it is uncertain how the projected changes in land use for Whittier’s General Plan will affect overall VMT in the City and surrounding areas, although projected VMT is discussed in detail in Section 17.4 (Transportation). The current General Plan growth projections were prepared in 1993 and have become outdated as local and regional conditions have changed considerably in the intervening 28 years. Although the proposed GPU growth will not match SCAG’s regional plans once the City has adopted the GPU, it will transmit its new growth numbers to SCAG and those estimates will be incorporated into the upcoming 2020 revisions to the RTP/SCS, thereby achieving balance and consistency between the two plans.

Consistency with Connect SoCal (2020-2045 RTP)

In September 2020 SCAG adopted “Connect SoCal” which is another term for their 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Connect SoCal builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in Connect SoCal may be important considerations in the City’s General Plan. **Table 4.11-2, Consistency with SCAG Connect SoCal Goals**, provides a consistency analysis between the ten Connect SoCal goals and the City’s proposed General Plan Update. Table 4.11-2 demonstrates that the proposed General Plan Update is consistent with the ten goals and environmental justice guidelines of the SCAG Connect SoCal document.

**Table 4.11-2
Consistency with SCAG Connect SoCal Goals**

Connect SoCal Goal	General Plan Consistency Analysis
<p>Goal #1: Encourage regional economic prosperity and global competitiveness</p>	<p>Consistent. The Land Use and Community Character Element contains the following goals and attendant policies that will help achieve Connect SoCal Goal 1:</p> <p>Goal 2: A network of great streets and public spaces that encourage social and economic activity</p> <p>Goal 4: A dynamic mix of businesses, uses, and employment that sustains a strong local economy, with design qualities that contribute to their success</p>
<p>Goal #2: Improve mobility, accessibility, reliability and travel safety for people and goods</p> <p>Goal #3: Enhance the preservation,</p>	<p>Consistent. The Mobility and Infrastructure Element contains the following goals and attendant policies that will help achieve Connect SoCal Goals 2-4:</p> <p>Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all</p>

Connect SoCal Goal	General Plan Consistency Analysis
<p>security, and resilience of the regional transportation system</p> <p>Goal #4: Increase person and goods movement and travel choices within the transportation system</p>	<p>travel options</p> <p>Goal 2: Easy access to regional and local transit service for all residents and people working in Whittier</p> <p>Goal 3: Vehicle miles travelled (VMT) reduced by 15% to meet SB743 thresholds and to establish consistency with State-mandated performance metrics.</p> <p>Goal 4: A strategic roadmap to implement emerging sustainable transportation systems</p> <p>Goal 5: Reduced traffic congestion and environmental impacts associated with goods movement</p> <p>Goal 6: Well-managed parking demand and supply citywide</p> <p>Goal 7: An effective Curbside Management Strategy</p> <p>Goal 8: Right-sizing of roadways</p> <p>Goal 9: Facilitating Smart Mobility and Autonomous Vehicle (AV)</p>
<p>Goal #5: Reduce greenhouse gas emissions and improve air quality</p>	<p>Consistent. The Resources Management Element contains the following goals and attendant policies that will help achieve Connect SoCal Goal 5:</p> <p>Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions</p> <p>Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.</p>
<p>Goal #6: Support healthy and equitable communities</p>	<p>Consistent. The Public Safety, Noise, and Health Element contains the following goal and policies that will help achieve address Connect SoCal Goal 6:</p> <p>Goal 9: Residential neighborhoods not burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles</p> <p>PSHN-9.16: Strive to ensure that all residents are within walking distance of sources of fresh and healthy foods (e.g., grocery stores, healthy corner stores, farmers' markets, and community gardens).</p> <p>PSHN-9.17: Expand the potential of community garden and urban farm sites on public properties, including parks, public easements, rights-of-way, and schoolyards.</p> <p>PSHN-9.18: Utilize incentives or other programs to encourage existing small grocery or convenience stores</p>

Connect SoCal Goal	General Plan Consistency Analysis
	<p>to offer and promote healthy food options, with a focus on underserved areas and areas near schools.</p> <p>PSHN-9.26: Support policies, projects, and programs that demonstrate best practices related to promoting wellness in City facilities and at City-sponsored events, such as serving healthy foods at community events.</p>
<p>Goal #7: Adapt to a changing climate and support an integrated regional development pattern and transportation network</p> <p>Goal #8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel</p>	<p>Consistent. The Resources Management Element contains the following goals and attendant policies to help achieve Connect SoCal Goal 7:</p> <p>Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions</p> <p>Goal 4: Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.</p> <p>Goal 6: A commitment to sustainability through progressive use of green building policies, practices, and technologies</p> <p>Goal 7: Increased commitment to renewable energy sources</p> <p>Goal 11: An urban forestry program that provides for shaded green spaces citywide, preserves long-established character of Whittier’s boulevards, and provides incentives for tree planting and preservation on private properties</p> <p>The Public Safety, Noise, and Health Element contains the following goal and its policies that address Connect SoCal Goal 7:</p> <p>Goal 8: An adaptive community responsive to changing climate conditions</p> <p>In addition, the Mobility and Infrastructure Element contains the following 5 goals and their attendant policies that address the issues raised in Connect SoCal Goals 7 and 8:</p> <p>Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all travel options</p> <p>Goal 2: Easy access to regional and local transit service for all residents and people working in Whittier</p> <p>Goal 3: Vehicle miles travelled (VMT) reduced by 15% to meet SB743 thresholds and to establish consistency with State-mandated performance metrics.</p> <p>Goal 7: An effective Curbside Management Strategy</p>

Connect SoCal Goal	General Plan Consistency Analysis
	<p>Goal 9: Facilitating Smart Mobility and Autonomous Vehicle (AV)</p>
<p>Goal #9: Encourage development of diverse housing types in areas that are supported by multiple transportation options</p>	<p>Consistent. The Land Use and Community Character Element contains the following goals and attendant policies that will help achieve Connect SoCal Goal 9:</p> <p>Goal 3: Distinctive and successful mixed-use and transit-oriented districts</p> <p>In addition, the Mobility and Infrastructure Element contains the following 5 goals and their attendant policies that address the issues raised in Connect SoCal Goal 9:</p> <p>Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all travel options</p> <p>Goal 2: Easy access to regional and local transit service for all residents and people working in Whittier</p>
<p>Goal #10: Promote conservation of natural and agricultural lands and restoration of habitats</p>	<p>Consistent. The City and Sphere have no agricultural lands or current farming operations, but the Resource Management Element contains the following goal and its attendant policies to address the habitat portion of Connect SoCal Goal 10:</p> <p>Goal 1: Preserve and protect natural open spaces that contain significant natural resources, including sensitive biological resources, native habitats, and vegetation communities supporting wildlife species</p>
<p>In addition, SCAG encouraged the City to examine Environmental Justice per Senate Bill 1000. Local jurisdictions in California with disadvantaged communities are required to develop an Environmental Justice (EJ) Element or consider EJ goals, policies, and objectives in their General Plans when updating two or more General Plan Elements. SCAG staff recommends cities review the Environmental Justice Technical Report and the updated Environmental Justice Toolbox, which is a resource document to assist local jurisdictions in developing EJ-related goals and policies regarding solutions for EJ-related community issues.</p>	<p>Consistent. The City has chosen not to create a new separate EJ Element but rather incorporate a number of EJ goals and policies into its General Plan Update. The Public Safety, Noise, and Health Element contains the following goal and policies that will improve environmental justice in the City of Whittier:</p> <p>Goal 9: Residential neighborhoods not burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles</p> <p>PSHN-9.1: Review the operating characteristics of proposed new industrial businesses near Disadvantaged Communities to minimize impacts on the population, especially children and the senior community. Encourage any existing sources of emissions to use feasible measures to minimize emissions that could impact air quality.</p> <p>PSHN-9.2: Support legislation that will reduce automobile</p>

Connect SoCal Goal	General Plan Consistency Analysis
	<p>and truck emissions, the predominant source of pollutants emanating from I-605 and Whittier Boulevard.</p> <p>PSHN-9.3: Encourage building design, construction safeguards, and technological improvements that mitigate the negative impacts of hazardous materials and/or air pollution on indoor air quality and residential and sensitive uses sited near businesses that handle toxic materials.</p> <p>PSHN-9.4: Designate acceptable and unacceptable areas for freight trucking and truck idling to limit impacts to all residents and Disadvantaged Communities in particular.</p>

Summary and Conclusions. The GPU will change land uses, housing, and growth projections for the City. While these changes are consistent with SCAG’s RHNA directives, they will not be in balance with SCAG’s 2020 RTP/SCS as the increase in housing will increase local VMT. Once the next RTC/SCS is adopted (likely in 2024) it will accommodate the new land uses that will be included in the City’s updated General Plan. The City cannot feasibly resolve this inconsistency in adopted plans at this time, but it can accommodate this future growth at the local level. Therefore, potential land use impacts of future development under the GPU are considered to be less than significant and no mitigation is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact LAND-3 – Would the GPU cause substantial adverse cumulative impacts with respect to land use and planning?

Analysis of Impacts

As discussed in Impact LAND-2 above, the 2021 GPU will change land uses in the City over time by substantially increasing the amount of residential uses and housing units over those projected in the 1993 General Plan. Conversely, the GPU represents substantially less growth in non-residential uses (e.g., commercial, office, light industrial) and employment in the future compared to that projected in the 1993 General Plan.

These land use changes and their related housing and population increases are resulting from the City’s increased RHNA housing allocation from SCAG, which is in turn based on the state’s goal of providing more housing throughout the state. However, the state housing goal conflicts with its desire to also reduce vehicle miles traveled (VMT) in an effort to reduce vehicular air pollution and greenhouse gas emissions.

4.11 – Land Use and Planning

The Land Use and Housing Elements of the existing General Plan and proposed GPU both contain a number of goals and policies for orderly growth consistent with local and regional plans, and surrounding jurisdictions have similar goals and policies to be consistent with state planning and housing laws.

While the proposed GPU has cumulative implications for SCAG's regional plans, the City itself cannot solve the inherent conflict between the goals and directives of the RHNA and the 2020 RTP/SCS. Once the City has adopted the GPU, it will transmit its new growth numbers to SCAG and those estimates will be incorporated into the next revisions to the RHNA and RTP/SCS.

The GPU will change land uses that will induce substantial housing and population growth within the Planning Area. However, this level of growth can be accommodated at the local level by the City of Whittier so the GPU does not represent a substantial adverse cumulative impacts with respect to land use and planning.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.11.5 REFERENCES

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

Southern California Association of Governments. *The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*. November 2019.

Southern California Association of Governments, 2020. *2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction*. Web: http://www.scag.ca.gov/Documents/2020_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf. [Accessed February 2021].

Southern California Association of Governments, 2012. *5th Cycle Regional Housing Needs Assessment Final Allocation Plan, 1/1/2014 – 10/1/2021*, August 29. Web: (<http://www.scag.ca.gov/Documents/5thCyclePFinalRHNAplan.pdf>). [Accessed February 2021].

4.12 – Mineral Resources

This EIR chapter addresses mineral resources impacts associated with the proposed General Plan Update (GPU). Issues of interest are mineral resources impacts identified by the CEQA Guidelines: whether the GPU will result in the loss of availability of a known mineral resource or result in the loss of availability of a locally-important mineral resource recovery site.

4.12.1 – ENVIRONMENTAL SETTING

Mineral Resource Zones

Minerals refer to aggregate resources, or rock, sand, and gravel, energy-producing fields, including oil, gas, and geothermal substances, and appurtenant mining operations. The California Department of Conservation classifies land in the state into mineral resource zones based on the known or inferred mineral resource potential of that land (DOC, 2020a). The Planning Area is located in the San Gabriel Valley Production-Consumption (P-C) Region of the greater Los Angeles metropolitan area (DOC, 2020b). Land in the Planning Area has been classified by the California Division of Mines and Geology (CDMG) according to the presence or absence of significant sand and gravel deposits (suitable for use in construction-grade aggregate). The land classification is presented in the form of maps showing Mineral Resource Zones (MRZ). There are four MRZ classifications- MRZ-1 through MRZ-4. Areas classified MRZ-1 are areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. Areas classified MRZ-2 are areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. Areas that are classified MRZ-3 are areas containing mineral deposits the significance of which cannot be evaluated from available data. Areas classified MRZ-4 are areas where availability information is inadequate for assignment to any other MRZ-zone.

According to the Department of Conservation, a majority of the Planning Area is classified MRZ-4 meaning there is inadequate information available for assignment to any other MRZ-zone. These areas include the built out western, central, and southeastern portions of the Planning area. Most of the Puente Hills and a small area in the southwestern portion of the Planning Area are classified MRZ-1 meaning there are no significant mineral deposits present in these areas. The hillside neighborhoods in the northeastern portion of the Planning Area and portions of the Puente Hills are classified MRZ-3 meaning while these areas contain mineral deposits there is inadequate available data to determine their significance. There are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area.

Oil and Gas

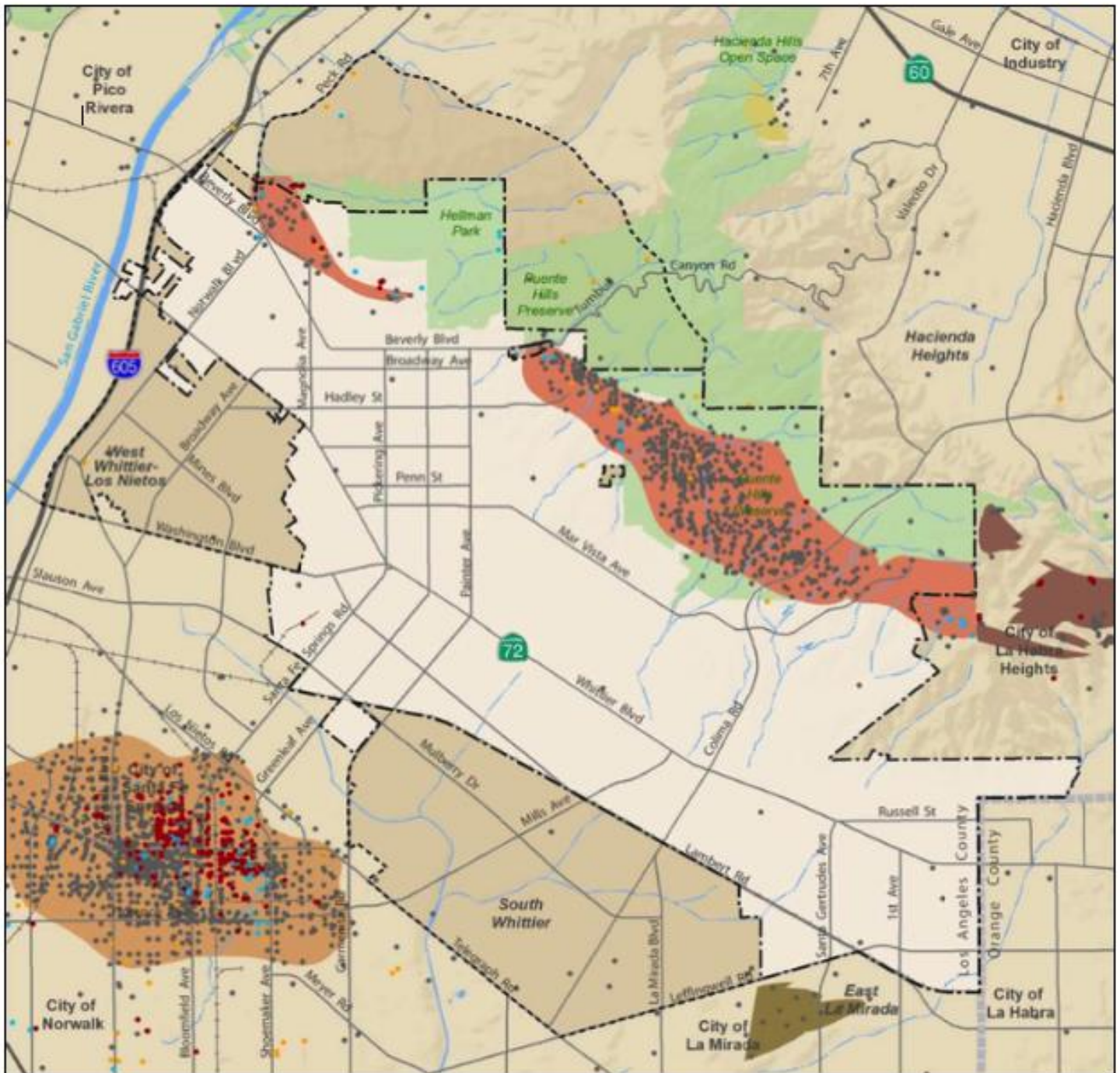
Oil was first discovered in the Puente Hills by the Central Oil Company in 1897. Oil derricks appeared at such a rapid pace that by 1921 the City restricted their construction. In that same year, Union Oil Company discovered oil in Santa Fe Springs. Active oil wells are still located east of Beverly Boulevard and Norwalk Boulevard; however, production in the hillsides has largely ceased (Whittier, 2017). According to the California Department of Conservation Geologic Energy Management Division's (CalGEM) online mapping application Well Finder, there are hundreds of idle and/or plugged oil and gas well within the limits of the Planning Area.

In addition, there are currently 26 active oil and gas wells within the Planning Area. There are 15 active oil and gas wells located near the intersection of Honolulu Terrace and Omelia Road just north of Beverly Drive, 2 active oil and gas wells between Rideout Way and Rideout Place north of Beverly Drive, and 9 active oil and gas wells south of Sycamore Canyon Road approximately a quarter mile east of Workman Mill Road. One of the active wells is independently owned and operated, two of the active wells are operated by Aalpha Energy, Inc., and the remaining wells are operated by Matrix Oil Corporation (DOGGR, 2020). Table 4.12-1 (Active Oil and Gas Wells) lists the active oil and gas wells within the Planning Area along with the well number, well identification number, location and operator. Exhibit 4.12-1 (Oil Production Facilities) illustrates the location of active, buried, idle, and plugged wells along with the different oil fields within the Planning Area. The concentration of former oil wells shows the legacy of this industry in the Planning Area.

**Table 4.12-1
Active Oil and Gas Wells**

Well Number	Well Identification Number	Location	Operator
1	03718425	Honolulu Ter. and Omelia Rd. North of Beverly Dr.	Steven A. Sayce
2	03718442	Btwn. Rideout Wy. and Rideout Pl. North of Beverly Dr.	Aalpha Energy, Inc.
3	03718443	Btwn. Rideout Wy. and Rideout Pl. North of Beverly Dr.	Aalpha Energy, Inc.
S-21	03721934	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-22	03721941	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-23	03722992	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-24	03723001	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-25	03726763	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-26	03726764	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-28	03726766	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-29	03727119	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
S-30	03727120	Sycamore Canyon Rd. East of Workman Mill Dr.	Matrix Oil Corporation
W-3	03721333	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-4	03721595	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-6	03721633	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-7	03721646	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-8	03721662	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-9	03721665	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-10	03721667	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-11	03721670	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-12	03721731	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-13	03721732	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-15	03721765	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-16	03721778	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-17	03721780	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation
W-18	03721784	Honolulu Ter. And Omelia Rd. North of Beverly Dr.	Matrix Oil Corporation

Source: California Department of Conservation, Division of Oil, Gas, and Geothermal Resources Well Finder.



Base Map Features

- Whittier City Boundary
- - - Whittier Sphere of Influence
- ==== County Boundary
- Major Streets
- Freeways
- - - Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Oil Fields

- Whittier
- Whittier Heights, North
- Leffingwell
- Sansinena
- Santa Fe Springs

Oil Wells Status

- Active
- Buried
- Idle
- Plugged



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Exhibit 4.12-1 Oil Production Facilities

Whittier General Plan Update
Whittier, California

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4.12.2 – REGULATORY FRAMEWORK

State

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA) was enacted by the California legislature to promote the conservation of the State’s mineral resources and to ensure adequate reclamation of mined lands. Among other provisions, SMARA requires the State Geologist to classify land in California into Mineral Resource Zones (MRZ), according to the known or inferred mineral potential of the land. The process is based solely on geology, without regard to existing land use or land ownership. Upon completion of each study, the State Geologist submits the mineral land classification report to the State Mining and Geology Board, which transmits the information to appropriate local governments that maintain jurisdictional authority in mining, reclamation, and related land-use activities. Local governments are required to incorporate the Preport and maps into their General Plans and consider the information when making land use decisions.

SMARA addresses the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. The Act applies to anyone, including government agencies, engaged in surface mining operations in California, including federally managed lands that disturb more than one acre or remove more than 1,000 cubic yards of material cumulatively from one site. Regulated mining activities include prospecting and exploratory activities, dredging and quarrying, streambed skimming, borrow pitting, and the stockpiling of mined materials. The current General Plan incorporates the requirements and mineral classification and designation information of SMARA.

The California Department of Conservation, Division of Mines and Geology (DMG) ‘Mineral Land Classification Project’ publishes mineral resource maps which have proven to be of value in land use planning and mineral conservation. This is an ongoing process with updates taking place approximately every 10 years. DMG is also in the process of identifying lands throughout the county with the potential for mineral resource recovery and will be used by the County in identifying new mineral resource areas to help ensure their preservation.

Areas subject to California mineral land classification studies are divided by the State Geologist into various MRZ categories that reflect varying degrees of mineral potential. The MRZ nomenclature and criteria adopted by the California State Mining and Geology Board (1983) are graphically portrayed on what is referred to as the California Mineral Land Classification Diagram (Exhibit 4.12-2). The diagram presents a relationship between mineral resource occurrence and economic significance. The horizontal axis of the diagram represents the degree of knowledge about mineral occurrence, and the vertical axis portrays economic characteristics of mineral deposits (grade and size).

Local

City of Whittier General Plan

The Environmental Resources Management Element of the current 1993 General Plan contains the following goal and policy regarding oil wells:

Goal 1: Preserve or conserve natural and cultural resources that have scientific, educational, economic, aesthetic, social, and cultural value.

Policy 1.4: Work with appropriate agencies to rehabilitate the oil fields or encourage the rehabilitation of these lands within the Planning Area for open space, recreation, or other beneficial resource conservation uses after site reclamation.

4.12.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to mineral resources if it would:

- 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; or
- 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.

4.12.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to the loss of availability of a known mineral resource that is of value to the region and the residents of the state and the loss of availability of a locally-important mineral resource recovery site.

Loss of Statewide or Regional Mineral Resources

Impact MINERAL-1 – Would the GPU 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?

Analysis of Impacts

According to the Department of Conservation, there are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area.

The existing Environmental Resources Management Element of the General Plan contained Goal 1 and Policy 1.4 to assure future development would not result in significant environmental impacts regarding oil wells. In addition, the Public Safety, Noise, and Health Element of the proposed GPU contains goals and policies intended to manage oil and gas production to balance contributions to City revenue with environmental protections goals.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 8: Managed oil and gas production that balances contributions to City revenue and environmental protection goals.

Policies

Policy RM-8.1: Maintain oil production and mineral extraction as a viable option and revenue source.

Policy RM-8.2: Plan for and approach energy production with a wider lens, encouraging collaboration between a spectrum of energy industries to address energy needs and production.

Policy RM-8.3: Encourage diversification of Whittier’s energy economy to conserve fossil fuels and improve air quality.

Policy RM-8.4: Minimize environmental impacts of oil production-related activity on threatened and endangered species, habitats, and natural resources.

Policy RM-8.5: Insist upon the safe disposal and recycling of wastes associated with oil drilling, production, and processing, minimizing adverse impacts on the environment and public health.

Policy RM-8.6: Minimize conflicts between mineral and energy resource lands and urban growth, particularly residential areas and sensitive communities.

Policy RM-8.7: Promote and encourage the reuse of former petroleum production lands with development compatible to surrounding land use designations.

Summary and Conclusions. While there are 26 active oil and gas wells located within the Planning Area, the proposed General Plan Update would not include physical changes to or the rezoning of these well locations. The GPU would not result in the loss of availability of a known mineral resource that is of value to the region and the residents of the State.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Loss of Locally Important Mineral Resources

Impact MINERAL-2 – Would the GPU 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?

Analysis of Impacts

According to the Department of Conservation, there are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area.

The existing Environmental Resources Management Element of the General Plan contained Goal 1 and Policy 1.4 to assure future development would not result in significant environmental impacts regarding oil wells.

2021 General Plan Update. The Public Safety, Noise, and Health Element of the proposed GPU contains goals and policies intended to manage oil and gas production to balance contributions to City revenue with environmental protections goals. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Resource Management Element

Goal 8: Managed oil and gas production that balances contributions to City revenue and environmental protection goals.

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Policy RM-8.1: Maintain oil production and mineral extraction as a viable option and revenue source.

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Policy RM-8.4: Minimize environmental impacts of oil production-related activity on threatened and endangered species, habitats, and natural resources.

Policy RM-8.5: Insist upon the safe disposal and recycling of wastes associated with oil drilling, production, and processing, minimizing adverse impacts on the environment and public health.

Policy RM-8.6: Minimize conflicts between mineral and energy resource lands and urban growth, particularly residential areas and sensitive communities.

Policy RM-8.7: Promote and encourage the reuse of former petroleum production lands with development compatible to surrounding land use designations.

Summary and Conclusions. While there are 26 active oil and gas wells located within the Planning Area, the proposed General Plan Update would not include physical changes to or the rezoning of these well locations. The GPU would not result in the loss of availability of a locally-important mineral resource recovery site.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

Cumulative Impacts

Impact MINERAL-3 – Would the GPU cause substantial adverse cumulative impacts with respect to mineral resources?

Analysis of Impacts

The proposed General Plan Update would not result in any impacts related to mineral resources. Because of the developed nature of the Planning Area, and because the GPU would not impact mineral resources, there would also be no cumulative impacts with respect to mineral resources.

Level of Significance Before Mitigation

No impact.

Mitigation Measures

None required.

4.12.5 REFERENCES

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4.13 – Noise

This EIR chapter provides pertinent background information on the nature of sound and vibration transmission; describes the existing noise environment in the Planning Area; summarizes applicable noise guidelines, standards, and regulations; and evaluates potential noise and vibration impacts that could result from implementation of the General Plan Update (GPU). Where necessary, this section includes mitigation measures that would reduce noise and vibration impacts associated with the GPU.

4.13.1 – FUNDAMENTALS OF ENVIRONMENTAL ACOUSTICS

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as “noisy” or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, and so on. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations. Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB. In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

Sound Characterization

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz, most of the sounds humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument’s detectors to

replicate human hearing. This filter, known as the “A-weighting” or “A-weighted sound level,” filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 4.13-1 for a list common noise sources and their A-weighted noise levels.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level (L_{eq}) descriptor is used to represent the average character of the sound over a period of time. The L_{eq} represents the level of steady-state noise that would have the same acoustical energy as the time-varying noise measured over a given time period. L_{eq} is useful for evaluating shorter time periods over the course of a day. The most common L_{eq} averaging period is hourly, but L_{eq} can describe any series of noise events over a given time period.

Variable noise levels are the values that are exceeded for a portion of the measured time period. Thus, the L_{01} , L_{10} , L_{50} , and L_{90} descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The L_{90} value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, DNL (or L_{dn}), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM), and a 10 dB “penalty” is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to DNL, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor’s increased sensitivity to noise levels during quieter nighttime periods.

**Table 4.13-1
Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet	105	
	100	
Gas lawn mower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noise urban area, daytime	75	
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher next room
	45	
Quiet urban nighttime	40	Theater, large conference room
Quiet suburban nighttime	35	
	30	Library
Quite rural nighttime	25	Bedroom at night
	20	
	15	Broadcast/recording studio
	10	
	5	
Typical threshold of human hearing	0	Typical threshold of human hearing

Source: Caltrans, 2013

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise-generating source. The strength of the source is often characterized by its “sound power level.” Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal “point” source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically,

the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. In contrast, a “line” source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called “excess attenuation.” Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction
- Interference with activities such as speech, sleep, learning, or relaxing
- Physiological effects such as startling and hearing loss

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person’s subjective reaction to a new noise source is to compare it with the existing environment without the noise source, or the “ambient” noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

Groundborne Vibration and Noise

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction

equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Groundborne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential groundborne noise generation.

4.13.2 – ENVIRONMENTAL SETTING

The City's existing General Plan Noise Element identifies the primary contributors to the City's noise environment as coming from motor vehicles and aircraft overflights. Other sources of community noise include rail activities and commercial and industrial land uses. This description is still accurate; the City's Existing Conditions Atlas prepared for the GPU identifies roadway traffic noise levels as an ongoing concern in the City.

The principal noise source within the Planning Area is from vehicular traffic, including automobiles, trucks, buses, and motorcycles. The level of noise generated by vehicular traffic generally varies according to the volume of traffic, the percentage of trucks, and average traffic speed. In addition to traffic along Whittier Boulevard (State Route [SR] 72) and the other major arterial roadways impacting the City, the Planning Area is also impacted by vehicular traffic from U.S. Interstate-605 (I-605). One freight rail line operated by the Union Pacific Railroad (UPRR) borders Lambert Road in the southern part of the City. While the passage of trains is an intrusive noise event, it occurs only periodically and is limited in duration.

The closest airport to the City is Fullerton Municipal Airport, located approximately 3.7 miles south of the City.¹ The City is not located in any noise contour zone associated with this airport; however, the City is located in an approach to Los Angeles International Airport (LAX) and noise from aircraft flyovers into LAX are prevalent throughout most of the City.

¹ This distance is as measured from the City's southern boundary to the airport's closest runway centerline.

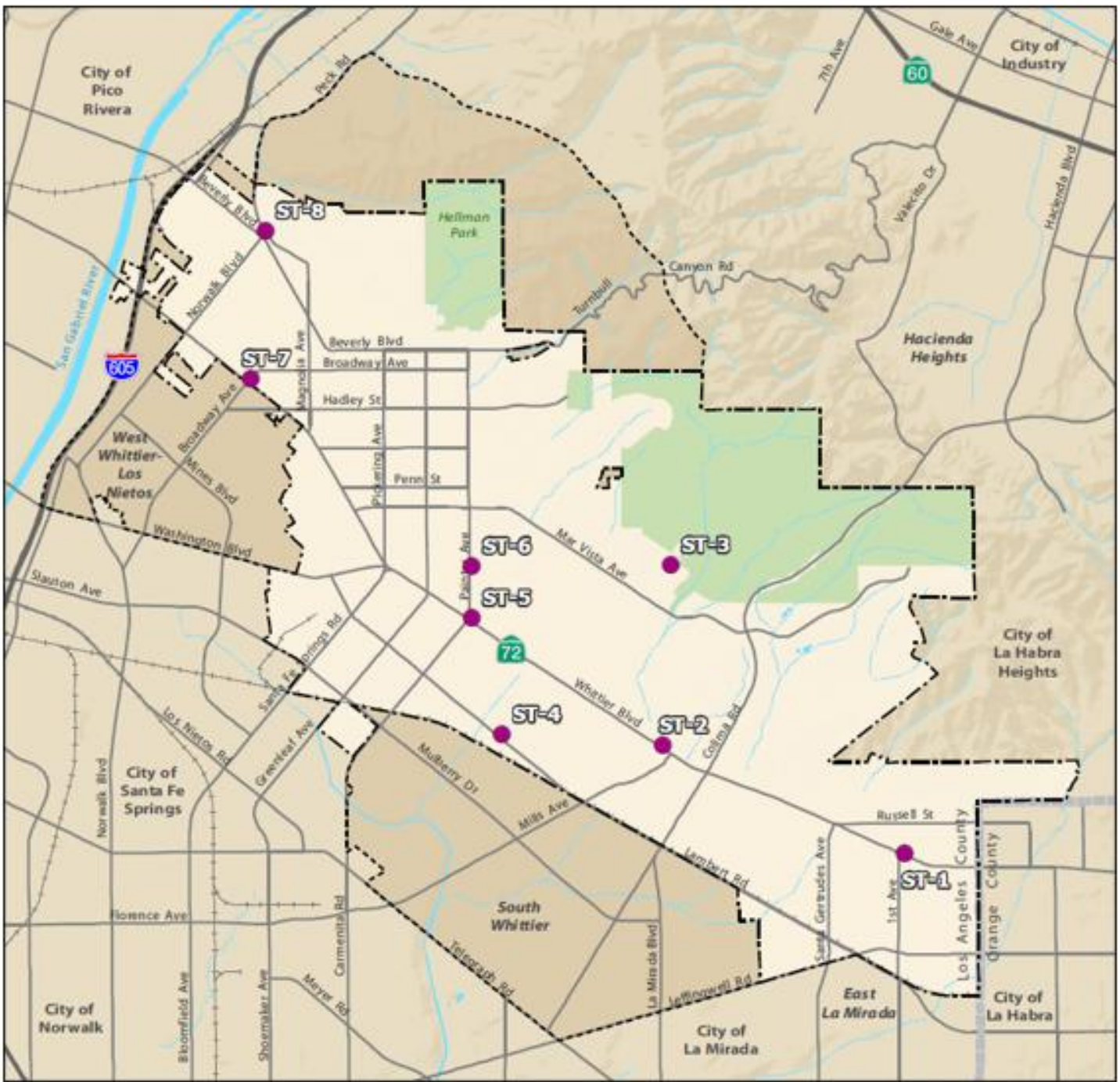
Measured Ambient Noise Levels

The existing ambient noise levels in the Planning Area were monitored in October 2020 (MIG 2020; see Appendix E). The ambient noise monitoring conducted for this EIR included eight (8) short-term (ST) measurements at locations selected to:

- Provide direct observations of existing noise sources in and in the vicinity of the Planning Area;
- Determine ambient noise levels in and in the vicinity of the Planning Area; and
- Evaluate potential noise levels at nearby sensitive receptors (see “Noise Sensitive Receptors” below).

The ambient noise monitoring locations are shown on Exhibit 4.13-1 and described below.

- **Location ST-1** was at northeast of the intersection of Whittier Boulevard and 1st Avenue, in near the eastern boundary of the Planning Area. This location was approximately 65 feet from the centerline of Whittier Boulevard. The ambient noise levels measured at location ST-1 are considered representative of background daytime noise levels along Whittier Boulevard in commercial portions of the City.
- **Location ST-2** was at the intersection of Whittier Boulevard and Ben Hur Avenue, in the central part of the Planning Area. This location was approximately 90 feet from the centerline of Whittier Boulevard. The ambient noise levels measured at ST-2 are considered representative of background daytime noise levels along Whittier Boulevard in commercial portions of the City, as well as representative of background daytime noise levels in residential areas located along major arterial roadways.
- **Location ST-3** was at the intersection of Linda Vista Drive and Ocean View Avenue, in the central-northern part of the Planning Area, near the Puente Hills Preserve. The ambient noise levels measured at ST-3 are considered representative of background daytime noise levels in residential areas away from major City roads.
- **Location ST-4** was along the Whittier Greenway Trail, approximately 200 feet west of the intersection of Lambert Road and Calmada Avenue, in the southern part of the Planning Area. This location was approximately 85 feet from the centerline of Lambert Road. The ambient noise levels measured at ST-4 are considered representative of background daytime noise levels in residential areas of the City near major roadways.
- **Location ST-5** was at the intersection of High Street and Painter Avenue, in the central part of the Planning Area. This location was approximately 100 feet from the centerline of Whittier Boulevard. The ambient noise levels measured at ST-5 are considered representative of background daytime noise levels in commercially developed areas of the City.
- **Location ST-6** was near the intersection of La Cuarta Street and Painter Avenue, in the central part of the Planning Area. This location was approximately 92 feet east of Painter Avenue. The ambient noise levels measured at ST-6 are considered representative of background daytime noise levels in mixed-use areas of the City near collector roadways.



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Open Space
- Waterbodies

Ambient Noise Monitoring Locations

- Short-Term Monitoring Location

Source: City of Whittier, 2017; MIG, 2021.

Prepared by MIG, May 2021.



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Exhibit 4.13-1 Ambient Noise Monitoring Locations

Whittier General Plan Update
Whittier, California



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- **Location ST-7** was near the intersection Whittier Boulevard and Broadway, in the western part of the Planning Area. This location was approximately 165 feet from the centerline of Whittier Boulevard. The ambient noise levels measured at ST-7 are considered representative of background daytime noise levels in commercially developed areas of the City along major arterial roadways.
- **Location ST-8** was at the intersection Workman Mill Road/Norwalk Boulevard and Davidson Drive, in the northwestern part of the Planning Area. This location was approximately 55 feet from the centerline of Workman Mill Road/Norwalk Boulevard. The ambient noise levels measured at ST-8 are considered representative of background daytime noise levels in high density residential areas of the City along major arterial roadways.

Based on observations made during the ambient noise monitoring, the existing noise environment in the Planning Area consists primarily of localized and regional transportation noise sources, including local traffic and aircraft overflights. Away from major arterial and collector roads, aircraft overflight and local residential/commercial land use operations are the primary contributors to the local ambient noise environment. Table 4.13-2 summarizes the results of the ambient noise monitoring conducted for this EIR.

**Table 4.13-2
Existing Ambient Noise Levels (dBA) in the Planning Area**

Day / Site	Start Time	Duration	Measured Noise Level (dBA)							
			L _{eq}	L _{min}	L _{max}	L _{1.6}	L _{8.3}	L ₂₅	L ₅₀	L ₉₀
Tuesday, October 20, 2020										
ST-1	3:40 PM	30-minutes	67.4	51.3	86.2	74.6	72.0	68.4	64.4	62.5
ST-2	4:25 PM	30-minutes	61.9	41.6	81.9	73.8	66.0	57.1	51.8	50.1
Wednesday, October 21, 2020										
ST-3	2:52 PM	15-minutes	49.9	33.5	66.8	58.2	55.6	50.4	45.4	40.6
ST-4	3:22 PM	15-minutes	63.0	50.1	73.5	68.4	66.5	63.8	62.0	61.0
ST-5	1:35 PM	15-minutes	63.7	59.0	68.5	67.8	66.4	65.1	62.6	62.2
ST-6	1:59 PM	15-minutes	69.0	57.9	77.0	76.4	72.0	69.8	67.2	66.1
ST-7	1:05 PM	15-minutes	66.8	59.3	73.9	73.3	70.0	67.7	65.2	64.3
ST-8	4:05 PM	15-minutes	70.7	53.7	88.5	79.9	75.7	69.8	66.1	64.3

Source: MIG (see Appendix E)

As shown in Table 4.13-2, daytime noise levels were generally lowest in the northern and central part of Planning Area that included residential development (ST-2, ST-3, and ST-4), and highest near major roads (ST-1, ST-5, ST-7, and ST-8). and commercially developed areas (ST-6) of the City. Measured noise levels were the highest along major arterials such as Whittier Boulevard and Workman Mill Road/Norwalk Boulevard.

Discussion on the Influence of Shelter in Place Orders on Ambient Noise Monitoring

As shown in Table 4.13-2, the ambient noise level measured along Whittier Boulevard (ST-1, ST-2, ST-5, and ST-7) and Workman Mill Road/Norwalk Boulevard (ST-8) were generally in the range of along 62 – 71 dBA L_{eq}. These ambient noise measurements reflect the actual

environmental conditions present during the monitoring. It is probable that October 2020 traffic volumes on roadways near the Plan Area were below typical conditions due to State public health orders limiting gatherings, school openings, non-essential travel, and other activities intended to control the spread of COVID-19. These restrictions may have reduced traffic volumes on major highways by 20 percent to 40 percent in the second quarter of 2020. (Caltrans, 2020a, ITE, 2020, and U.C. Davis 2020)

The California Department of Transportation (Caltrans) considers a doubling of total traffic volume to result in a three (3) dBA increase in traffic-related noise levels (Caltrans 2013). Assuming traffic volumes could be at least approximately 20 percent higher would, therefore, result in an approximate change in measured noise levels of 0.8 dBA, assuming vehicle traffic is the sole source of noise influencing a measurement and the vehicle fleet mix does not change substantially. For the purposes of this EIR analysis, however, no change to measured short-term ambient noise levels has been made.

Existing (2019) and Future (2040) Baseline Traffic Noise Levels

Existing (Year 2019) traffic noise levels were computed using the U.S. Department of Transportation Federal Highway Administration's (FHWA) Traffic Noise Model (TNM), Version 3.0. The model uses traffic volume, vehicle mix, vehicle speed, roadway geometry, and other variables to compute 24-hour traffic noise levels at user-defined receptor distances from the roadway center. The TNM modeling conducted for this EIR incorporates worst-case assumptions about motor vehicle traffic and noise levels; specifically, calculations are based on "hard" site conditions and do not incorporate any natural or artificial shielding, with the exception of I-605, which includes a noise barrier.

Information on existing average daily traffic volumes was obtained from City traffic speed surveys (City of Whittier, 2014, 2016, and 2017), the traffic impact analysis (TIA) prepared for the Project (Fehr and Peers, 2021a), and Caltrans traffic count information (for Whittier Boulevard (SR 72) and I-605; Caltrans, 2019a and 2019b). Traffic noise levels were estimated for typical daytime (7 AM to 7 PM), evening (7 PM to 10 PM), and nighttime (10 PM to 7 AM) hours using hourly distributions collected during traffic counts within the City. The mix of automobiles (94%), medium trucks (2%), heavy duty trucks (1%), and motorcycles (3%) assigned to the roadway system was determined based on EMFAC2021 vehicle populations for the Los Angeles County (South Coast) sub area. Roadway segments were modeled as straight-line segments without any flow controls. Modeled noise levels, therefore, represent free-flow traffic conditions. Vehicles were assumed to travel the posted speed limit on each modeled roadway segment.

The TIA prepared for the GPU also includes an analysis of future traffic conditions that would occur in Year 2040 based on continued implementation of the City's current General Plan at the land use development intensities permitted by the current General Plan. The future baseline Year 2040 traffic noise levels were estimated using the same methodology as described for the existing year 2019 traffic noise analysis. Traffic noise levels were computed using TNM, Version 3.0 and the same roadway geometry factors assumed for 2019 traffic noise levels; however, traffic volumes and fleet mix percentages were updated based on specific information for future Year 2040 conditions developed for the TIA using the Southern California Association of Government (SCAG) Regional Travel Demand Model.

Modeled traffic noise levels for existing (Year 2019) and future (Year 2040) baseline traffic noise levels are shown in Table 4.13-3. Existing traffic noise contours are shown in Exhibit 4.13-2

(Existing (2019) Traffic Noise Contours). Please refer to Appendix E for detailed information on existing traffic noise modeling assumptions.

**Table 4.13-3
Existing (2019) and Future (2040) Baseline Traffic Noise Levels**

Road / Segment	Year 2019		Year 2040		Net Change	
	ADT	CNEL ^(A)	ADT	CNEL ^(A)	ADT	CNEL
Beverly Boulevard						
West City Limit to Norwalk Blvd	38,583	72.4	39,313	71.9	730	-0.5
Norwalk Blvd to Pickering Ave	34,104	72.1	33,477	71	-628	-1.1
Pickering Ave to Painter	15,426	64.8	10,066	62.9	-5,361	-1.9
Colima Road						
North City Limit to Mar Vista St	45,527	75.4	72,827	78	27,300	45,527
Mar Vista St to Whittier Blvd	36,793	74.4	53,236	76.7	16,443	36,793
Whittier Blvd to Lambert Rd	29,083	71.6	32,045	73.2	2,962	29,083
Lambert Rd to Telegraph Rd	29,083	71.2	22,654	72	-6,429	29,083
Greenleaf Avenue						
Beverly Blvd to Whittier Blvd	10,389	62.4	6,434	60.6	-3,955	10,389
Whittier Blvd to South City Limit	10,005	62.5	2,627	58.1	-7,378	10,005
Hadley Street						
Whittier Blvd to Painter Ave	13,116	67.6	14,670	68	1,554	13,116
Lambert Road						
Washington Blvd to Santa Fe Springs Rd	24,907	70.1	24,409	70.3	-498	24,907
Santa Fe Springs Rd. to Laurel Ave	24,907	70.3	28,181	70.8	3,274	24,907
Laurel Ave to Calmada Ave	26,343	71.6	30,368	72.2	4,025	26,343
Calmada Ave to Mills Ave	26,567	71.8	31,877	72.6	5,310	26,567
Mills Ave to Cole Ave	24,160	71.9	30,236	73	6,076	24,160
Cole Ave to Leffingwell	24,160	71.6	33,407	73.1	9,247	24,160
Mar Vista Street						
Painter Ave to Colima Rd	17,743	67	13,192	66.6	-4,552	17,743
Mills Avenue						
Whittier Blvd to Lambert Rd	14,023	67.7	22,478	70.9	8,455	14,023
Lambert Rd to Telegraph Rd	14,023	68.7	27,173	72.7	13,150	14,023
Norwalk Boulevard/Workman Mill Road						
North City Limit to Beverly Blvd	23,559	71.8	30,844	72.6	7,285	23,559
Beverly Blvd to Whittier Blvd	19,672	69.9	18,959	70.6	-713	19,672
Whittier Blvd to Washington Blvd	22,000	69.2	24,491	68.6	2,491	22,000
Painter Avenue						
Beverly Blvd to Hadley St	18,014	62.3	9,069	60.6	-8,945	18,014
Hadley St to Whittier Blvd	28,283	68.6	14,239	65.8	-14,044	28,283
Whittier Blvd to Lambert Rd	24,550	70.0	13,334	68.0	-11,216	24,550
Lambert Rd to Telegraph Rd	35,522	71.8	19,294	69.8	-16,229	35,522
Pickering Avenue						
Beverly Blvd to Whittier Blvd	8,411	62.6	8,526	60.6	115	8,411
Santa Fe Springs Road						
Whittier Blvd to South City Limit	17,812	69.3	20,788	70.2	2,976	17,812

**Table 4.13-3
Existing (2019) and Future (2040) Baseline Traffic Noise Levels**

Road / Segment	Year 2019		Year 2040		Net Change	
	ADT	CNEL ^(A)	ADT	CNEL ^(A)	ADT	CNEL
Santa Gertrudes Avenue						
Whittier Blvd to Leffingwell Rd	17,613	65.2	19,015	65.6	1,402	17,613
Washington Boulevard						
West City Limit to Santa Fe Springs Rd	22,291	71.3	30,463	73.3	8,172	22,291
Whittier Boulevard						
West City Limit to Norwalk Blvd	41,000	70.8	49,213	72.6	8,213	41,000
Norwalk Blvd to Hadley St	26,500	68.8	32,427	71.4	5,927	26,500
Hadley St to Philadelphia St	26,500	68.6	42,661	71.5	16,161	26,500
Philadelphia St to Mar Vista St	26,500	72.2	43,570	75	17,070	26,500
Mar Vista St to Santa Fe Springs Rd/Washington Blvd	26,500	68.7	34,116	70.4	7,616	26,500
Santa Fe Springs Rd/Washington Blvd to Painter Ave	39,500	70.4	34,764	70.3	-4,736	39,500
Painter Ave to Colima Rd	41,547	71.4	40,700	71.7	-847	41,547
Colima Rd to 1st Ave	37,000	72.1	44,017	73.1	7,017	37,000
1st Ave to East City Limit	26,500	71.8	29,539	72.6	3,039	26,500
Interstate 605 (with barriers)						
Beverly Blvd to Whittier Blvd	248,000	66.9	255,823	67.0	7,823	248,000
Whittier Blvd to Washington Blvd	240,000	72.7	247,571	72.9	7,571	240,000
Source: MIG, 2021 (see Appendix E)						
(A) CNEL values are as estimated 50 feet from the road center, excepting Whittier Blvd between Mar Vista Street and Washington Blvd (CNEL at 100 feet) and I-605 (CNEL at 150 feet).						

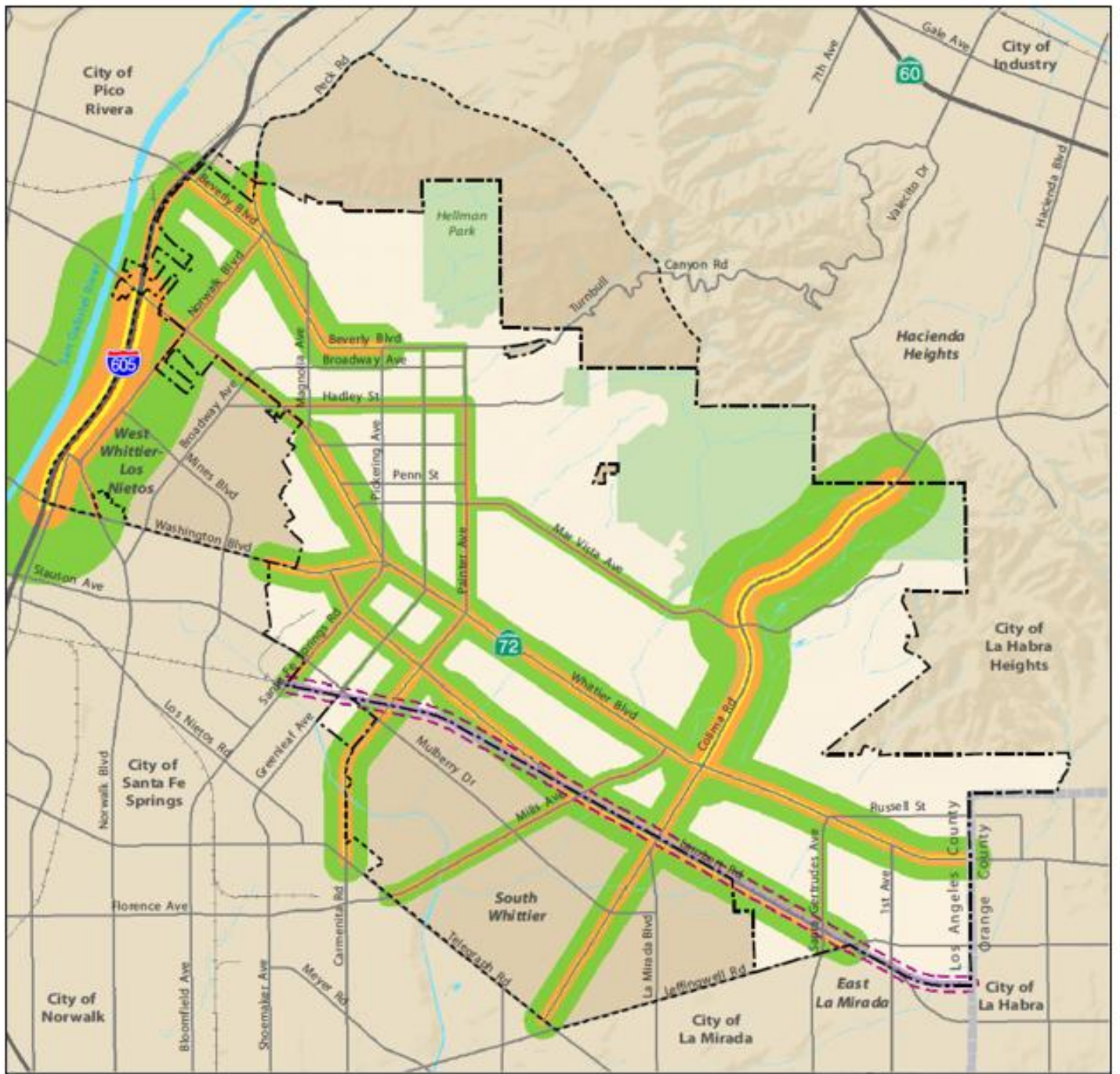
The results of the traffic noise modeling indicate that existing traffic noise levels within the Planning Area are highest along Beverly Boulevard, Colima Road, Lambert Road, Washington Boulevard, and Whittier Boulevard. Specifically, the modeling shows:

- Year 2019 traffic noise levels along Beverly Boulevard west of Pickering Avenue are above 70 CNEL at a distance of 50 feet from the center of the roadway. Residential and commercial buildings are present along this segment of Beverly Boulevard. The estimated Year 2019 traffic noise levels exceed the City's conditionally acceptable noise exposure level for residential land uses (70 CNEL) contained in the City's existing General Plan but are within the City's conditionally acceptable noise exposure level for commercial land uses (77.5 CNEL). Year 2040 traffic noise levels are estimated to decrease by 1 to 2 dBA due to a predicted decrease in ADT volumes along Beverly Boulevard.
- Year 2019 traffic noise levels along Colima Road north of Whittier Boulevard are estimated to be approximately 74 to 75CNEL at a distance of 50 feet from the center of the roadway. Commercial, residential, religious institution, and open space land uses are present along this segment of Colima Road. The estimated Year 2019 traffic noise levels exceed the City's conditionally acceptable noise exposure level for residential and religious institution land uses (70 CNEL) contained in the City's existing General Plan but are within the City's conditionally acceptable noise exposure level for commercial land uses (77.5 CNEL). The City's General Plan does not establish noise exposure

levels for open space land uses but does establish 75 CNEL as the conditionally acceptable noise exposure level for golf courses (a land use similar to open space). Year 2040 traffic noise levels are estimated to increase by approximately 2 to 3 dBA, and exceed normally unacceptable noise exposure levels for residential and religious institution land uses (75 CNEL).

- Year 2019 traffic noise levels along Lambert Road are estimated to be above 70 CNEL at a distance of 50 feet from the center of the roadway. A mix of commercial and residential land uses, as well as the Union Pacific railroad and the Whittier Greenway Trail, are present along Lambert Road. The estimated Year 2019 traffic noise levels exceed the City's conditionally acceptable noise exposure level for residential land uses (70 CNEL) contained in the City's existing General Plan but are within the City's conditionally acceptable noise exposure level for commercial land uses (77.5 CNEL). Year 2040 traffic noise levels are estimated to increase by approximately 1 to 2 dBA but remain within current noise exposure levels (i.e., normally unacceptable for residential land uses and conditionally acceptable for commercial land uses).
- Year 2019 traffic noise levels along Washington Boulevard are estimated to be above 70 CNEL at a distance of 50 feet from the center of the roadway. A mix of commercial and residential land uses, as well as the Presbyterian Intercommunity Hospital, are present along Washington Boulevard. The estimated Year 2019 traffic noise levels exceed the City's conditionally acceptable noise exposure level for residential and hospital land uses (70 CNEL) contained in the City's existing General Plan but are within the City's conditionally acceptable noise exposure level for commercial land uses (77.5 CNEL). Year 2040 traffic noise levels are estimated to increase by approximately 2 dBA but remain within current noise exposure levels (i.e., normally unacceptable for residential and hospital land uses and conditionally acceptable for commercial land uses).
- Year 2019 traffic noise levels along Whittier Boulevard (between the City limit and Norwalk Boulevard, Philadelphia Street and Mar Vista Street, and east of Santa Fe Springs Road/Washington Boulevard) are estimated to be above 70 CNEL at a distance of 50 feet from the center of the roadway. A mix of commercial and industrial land uses are primarily present along Whittier Boulevard. The estimated Year 2019 traffic noise levels are within the City's conditionally acceptable noise exposure level for commercial and industrial land uses (77.5 and 80 CNEL, respectively) contained in the City's existing General Plan. Year 2040 traffic noise levels are estimated to increase by approximately 1 to 3 dBA but remain within current noise exposure levels (i.e., conditionally acceptable for commercial and industrial land uses).

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Base Map Features

- Whittier City Boundary
- - - Whittier Sphere of Influence
- ▬▬▬ County Boundary
- Major Streets
- Freeways
- + + + + + Railroads
- River and Creeks
- Open Space
- Waterbodies

**Existing Noise Contours
Community Noise Equivalent Levels (CNEL)**

- 75 CNEL
- 70 CNEL
- 65 CNEL
- 60 CNEL

**Existing Rail Noise Contours
Community Noise Equivalent Levels (CNEL)**

- 65 CNEL
- 60 CNEL

Source: City of Whittier, 2017; MIG, 2021.

Prepared by MIG, May 2021.



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Exhibit 4.13-2 Existing Transportation Noise Contours (2019)

Whittier General Plan Update
Whittier, California



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Existing (2019) and Future (2040) Baseline Railroad Noise Levels

Whittier has an active Union Pacific rail corridor on its southern border, adjacent to Lambert Road. Existing land uses along the rail corridor consist of commercial, light industrial, and residential buildings that are generally set back approximately 40 to 150 feet or more from the center of the railroad track. The current level of rail activity along the rail corridors is estimated to be approximately four (4) diesel-powered freight trains per day. There is one at-grade railroad crossings within the City (Lambert Street, between Gunn Ave and Mills Ave).

Railroad noise is generated from a variety of sources. The locomotive engine's propulsion system generates noise from mechanical and electrical systems as well as exhaust pipes. The interaction of wheels with the track produces various noises, particularly where the wheel encounters a flaw or defect along smooth wheel / track surfaces. Finally, train horns and railroad crossing warning devices generate short but loud (up to 105 dBs for train horns) alerts pursuant to federal safety regulations.

Existing railroad noise levels were computed using the Federal Railroad Administration's CREATE model, which is based on noise calculation methods contained in the FTA's Transit Noise and Impact Assessment document, but includes adjustments to account for the greater locomotive horsepower typically associated with freight trains, as well as differences in freight train schedules, weight, and total length (FTA 2006, HMMH, 2011). The model uses train operating characteristics (locomotive type, speed, trains per daytime and nighttime), track characteristics (e.g., jointed or welded track, elevated or at grade track), and crossing information to compute hourly and 24-hour traffic noise levels at user-defined receptor distances from the center of the railroad track. No natural or human-made noise shielding or barriers (e.g., topography, vegetation, berms, walls, or buildings or other attenuation measures) were accounted for, and therefore modeled noise levels are considered "worst case" railroad noise conditions along the length of each corridor. Trains were assumed to travel 35 miles per hour along the rail corridor. The existing rail noise contours are included on Exhibit 4.13-2. The distances to the CNEL contours for existing rail operations are shown in Table 4.13-4. Please refer to Appendix E for detailed information on rail noise modeling assumptions.

**Table 4.13-4
Existing (Year 2019) Rail Noise Level Contour Distances**

Railroad	Existing Trains Per Day	CNEL at 50 feet (dBA) ^(A)	CNEL Contour and Distance from Roadway Center (in Feet)			
			75 dBA	70 dBA	65 dBA	60 dBA
Union Pacific (Southern Boundary / Lambert Rd)	4	67.0	8	25	79	251

Source: MIG, 2017 (See Appendix E).
(A) All CNEL values at listed distances are measured from the center of the modeled rail track.

The results of the rail noise modeling indicate that existing rail noise levels along the City's southern boundary are estimated to be above 67 CNEL at a distance of 50 feet from the center of the railroad track. The estimated rail noise levels are within the City's conditionally acceptable noise exposure level for residential and commercial land uses (70 and 77.5 CNEL, respectively) contained in the City's existing General Plan.

The 2018 California State Rail Plan acknowledges that freight train service will increase over time (Caltrans, 2018). Accordingly, the amount of daily freight trains operating on the Union

Pacific corridors is presumed to double by 2040. Future rail noise levels were computed using the same methodology used to calculate existing rail noise levels, except that freight train activity was doubled to reflect state forecasted increases in freight rail activity. Year 2040 rail activity noise levels are estimated to increase by approximately 3 dBA. This increase would result in change in noise exposure compatibility for residential land uses from conditionally acceptable (70 CNEL) to normally unacceptable (75 CNEL). Commercial land uses would remain within the conditionally acceptable noise exposure range.

Metro L-Line (formerly known as the Gold Line) Extension

In February 2020, LA Metro considered options for the Eastside Transit Corridor Phase 2 Project and selected the Washington Alternative, which would extend the L-Line (Gold Line) along Washington Boulevard to a new terminus at Lambert Road in Whittier. Existing City land uses along the potential L-Line (Gold Line) extension along Washington Boulevard are a mix of residential, commercial, and industrial land uses. The proposed GPU would allow medical and new mixed-use land uses in the vicinity of the potential Gold Line extension.

Other Non-Transportation Noise Sources

Non-transportation sources also contribute to the City's existing noise environment. Commercial and industrial land uses located throughout the City (but primarily along key roadways like Whittier Boulevard, Washington Boulevard, and Greenleaf Ave), schools and outdoor park and recreation facilities, and residential land uses generate noise from daily operations of landscaping equipment, stationary sources such as heating, ventilation, and air conditioning (HVAC) equipment, business deliveries, solid waste pickup services, etc. Such sources are considered local source of noise that only influence the immediate surroundings.

Noise Sensitive Receptors

Noise-sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, motels and hotels, hospitals and health care facilities, school facilities, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. In general, potential noise-sensitive receptors within the City include:

- Existing low density, medium density, high density, and mixed-use residential receptors within the City.
- Existing schools and education or institutional facilities, such as, but not limited to, West Whittier Elementary School, East Whittier Middle School, Whittier High School, and Whittier Area Community Church.
- Existing overnight/long-term medical care facilities, such as Presbyterian Intercommunity Hospital.
- Existing neighborhood, community, and other parks, such as, but not limited to, Anaconda Park, Founders Park, Palm Park, and Penn Park.

In addition to existing sensitive noise receptors, the proposed GPU would increase development density in the City and would provide for new residential and mixed use residential and commercial opportunities.

4.13.3 – REGULATORY FRAMEWORK

Federal

Federal Transit Administration

No federal regulations apply to noise or vibration from the proposed GPU, but the FTA's 2018 *Transit Noise and Vibration Impact Assessment Manual* document sets groundborne vibration annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and recording studios. Category 2 buildings include residential lands and buildings where people sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primarily daytime uses. The FTA standards vary for “frequent” events (occurring more than 70 times per day, such as a rapid transit project), “occasional” events (occurring between 30 to 70 times per day), and “infrequent” events (occurring less than 30 times per day). The FTA’s vibration annoyance criteria are summarized in Table 4.13-5.

**Table 4.13-5
FTA Ground-Borne Vibration Impact Criteria for General Assessment**

Land Use Category/Type	Impact Level (Velocity Decibels)		
	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional buildings	75 VdB	78 VdB	83 VdB

Source: FTA 2018

State

California Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that sets forth various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room.

California Green Building Standards Code

The California Green Building Standards Code is Part 11 to the California Building Standards Code. Chapter 5, Nonresidential Mandatory Standards, Section 5.507 establishes the following requirements for non-residential development that may be applicable to the Project.

4.13 – Noise

- Section 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dBA L_{eq} (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class [OITC] of 35), with exterior windows of a minimum STC of 40.
- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA L_{eq} pursuant to Section 5.507.4.1.1 shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA L_{eq} in occupied areas during any hour of operation. This requirement shall be documented by an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

Caltrans

The California Department of Transportation’s (Caltrans) Transportation and Construction Vibration Guidance Manual provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans 2013b). Chapters Nos. 6 and 7 of the aforementioned guidance manual summarizes vibration detection and annoyance criteria from various agencies and provides Caltrans’ recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 4.13-6 and Table 4.13-7.

**Table 4.13-6
Caltrans’ Vibration Threshold Criteria for Building Damage**

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.12 to 0.2
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans 2020		

**Table 4.13-7
Caltrans’ Vibration Threshold Criteria for Human Response**

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Slightly perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severe/Disturbing	2.0	0.7 (at 2 Hz) to 0.17 (at 20 Hz)
Very disturbing	--	3.6 (at 2 Hz) to 0.4 (at 20 Hz)
Source: Caltrans 2020		

California General Plan Guidelines

OPR publishes the State of California General Plan Guidelines, which provide guidance for the acceptability of projects within specific community noise levels. The guidelines also present adjustment factors that may be used to arrive at noise-acceptability standards that reflect the particular community’s noise-control goals, sensitivity to noise, and assessment of the relative importance of noise issues. OPR’s base guidelines for establishing land use patterns that minimizes exposure of community residents to excessive noise are presented in Table 4.13-8 (OPR, 2017).

Table 4.13-8
OPR General Plan Guidelines For Community Noise Exposure

Land Use Category	Community Noise Exposure Limit (CNEL or DNL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low-Density Single-Family, Duplex, Mobile Homes	60	70	75	75+
Residential - Multi-Family	65	70	75	75+
Transient Lodging - Motels, Hotels	65	70	80	80+
Schools, Libraries, Churches, Hospitals, Nursing Homes	70	70	80	80+
Auditoriums, Concert Halls, Amphitheaters	N/A	70	N/A	70+
Sports Arenas, Outdoor Spectator Sports	N/A	N/A	75	75+
Playgrounds, Neighborhood Parks	70	70	75	75+
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75	N/A	80	80+
Office Buildings, Business Commercial and Professional	70	77.5	77.5+	N/A
Industrial, Manufacturing, Utilities, Agriculture	75	80	80+	N/A

Source: OPR, 2017, Appendix D, Figure 2

Local

City of Whittier General Plan

The City’s existing 1993 General Plan Noise Element includes the following goals and policies relevant to development under the existing General Plan.

Goal 1: Minimize noise levels throughout the community.

Policy 1.1: Work toward the separation or buffering of freeways and highways from noise-sensitive land uses such as residences, school, and hospitals.

Policy 1.2: Consider steps to correct existing noise problems and avoid future problems through design measures such as buffers and barriers or through abatement procedures.

Goal 2: Discourage noises which are detrimental to the public health and welfare and contrary to the public interest.

Policy 2.1: Control, at their sources, any sounds which exceed accepted community noise levels.

Policy 2.2: Evaluate and control the noise impacts of major developments and construction through the environmental review process.

Policy 2.3: Encourage attenuation devices and limited hours of operation for new private recreational developments so that neighborhood noise, especially during evening and nighttime hours, can be reduced.

Policy 2.4: Support the enforcement of existing laws pertaining to the noise of off-road vehicles, trucks, and equipment.

Policy 2.5: Recognize and follow acceptable noise levels standards from schools, parks, and other land uses in future planning.

Additionally, the City’s existing General Plan Noise Element establishes land use compatibility standards shown in Table 4.13-9.

**Table 4.13-9
Noise/Land Use Compatibility Guidelines**

Land Use Category	Community Noise Exposure Level (CNEL) Compatibility Limit (dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low-Density Single-Family, Duplex, Mobile Homes	60	70	75	75+
Residential - Multi-Family	65	70	75	75+
Transient Lodging - Motels, Hotels	65	70	80	80+
Schools, Libraries, Churches, Hospitals, Nursing Homes	65	70	80	80+
Auditoriums, Concert Halls, Amphitheaters	N/A	70	N/A	70+
Sports Arenas, Outdoor Spectator Sports	N/A	N/A	N/A	65+
Playgrounds, Neighborhood Parks	70	N/A	75	75+
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75	N/A	80	80+
Office Buildings, Business Commercial, Professional, and Mixed-Use Developments	70	77.5	77.5+	N/A

Industrial, Manufacturing, Utilities, Agriculture	75	80	80+	N/A
Source: City of Whittier, 1993, Exhibit 8-1				

City of Whittier Municipal Code

Municipal Code Title 8 (Health and Safety), Chapter 8.32 Noise Control), includes the City's standards related to noise. Section 8.32.010 B. establishes that the making, creation, or maintenance of "loud, unnecessary, and unnatural or unusual noises which are prolonged, unusual and unnatural in their time, place and use affect and are a detriment to public health, comfort, convenience, safety, welfare and prosperity of the residences of the City."

Section 8.32.030 (Loud, Annoying, and Unnecessary Noises Prohibited) of the Municipal Code states that it is unlawful for any person to willfully generate any excessive or unreasonable noise, which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area (Section 8.32.030 A.). The City may consider the following factors in determine whether noise levels or loud, annoying, and unnecessary (Section 8.32.030 B.): the level of the noise; whether the nature of the noise is usual or unusual; whether the origin of the noise is natural or unnatural; the level and intensity of the background noise, if any; the proximity of the noise to residential sleeping facilities; the nature and zoning of the area within which the noise emanates; the density of the inhabitation of the area within which the noise emanates; the time of the day and night the noise occurs; the duration of the noise, including whether it is of a temporary or short-term nature; whether the noise is recurrent, intermittent, or constant; and whether the noise is produced by a commercial or noncommercial activity.

Section 8.32.040 (Loud, Annoying, and Unnecessary Noises – Enumerated) lists certain loud, annoying, and unnecessary noises declared to be in violation of Chapter 8.32. These noises are summarized Table 4.13-10.

Table 4.13-10
Whittier Municipal Code Loud, Annoying, and Unnecessary Noises

Noise Source ^(A)	Noise Source Description	Standard Applied ^(B)
Animals and Birds (Section 8.32.040 A.)	The keeping of any animal or bird that causes frequent or long continued noise.	Noise shall not be plainly audible by inhabitants or occupants of any adjacent or neighboring residential properties or units, or plainly audible at a distance of 50 feet from any non-residential building or structures.
Defect in Vehicle or Load (Section 8.32.040 B.)	The use of any automobile, motorcycle, or other vehicle out of repair, loaded, or otherwise in a manner as to create loud and unnecessary grating, grinding, rattling, or other noise.	Noise shall not be plainly audible at a distance of 100 feet from the real property boundary of the source of the sound (if occurring on privately owned property), or from the source of the sound, if the sound occurs on public right-of-way (ROW), public property, or private property open to the public.

**Table 4.13-10
Whittier Municipal Code Loud, Annoying, and Unnecessary Noises**

Noise Source ^(A)	Noise Source Description	Standard Applied ^(B)
Motor Vehicle Noises (Section 8.32.040 C.)	Any loud or annoying noise made by any motor vehicle and not reasonably necessary to the operation thereof under the circumstances, including, but not limited to, noise caused by screeching of tires; racing or accelerating the engine, except in the course of repair or adjustment thereof during nighttime hours; backfiring the engine; or the emission of exhaust from the engine tail pipe or muffler.	Noise shall not be plainly audible at a distance of 100 feet from the real property boundary of the source of the sound (if occurring on privately owned property), or from the source of the sound, if the sound occurs on public right-of-way (ROW), public property, or private property open to the public.
Domestic Power Tools (Section 8.32.040 D.)	Operating or permitting the operation of any mechanically powered saw, sander, drill, grinder, lawn or garden tool, snow blower, small power equipment, or similar device used outdoors in residential areas during nighttime hours. ^(D)	Activity shall not cause a noise disturbance across a residential real property boundary.
Engine-Repair and Testing (Section 8.32.040 E.)	Repair, rebuilding, or testing any engine during nighttime hours.	Noise shall not be plainly audible at a distance of 100 feet from the real property boundary of the source of the sound (if occurring on privately owned property), or from the source of the sound, if the sound occurs on public right-of-way (ROW), public property, or private property open to the public.
Horns and Signaling Devices (Section 8.32.040 F.)	The sounding of any horn or signaling device on any automobile, motor vehicle or any other vehicle on any street or public street except as a danger warning; the creation by means of any such signaling device of any unreasonably and unnecessarily loud or harsh sounds; the sounding of any such signaling device for an unnecessarily or unreasonably long period of time; or the use of any horn, whistle or other device operated by engine exhaust.	Noise shall not be plainly audible at a distance of 100 feet from the real property boundary of the source of the sound (if occurring on privately owned property), or from the source of the sound, if the sound occurs on public right-of-way (ROW), public property, or private property open to the public.
Loudspeakers/Public Address System (Section 8.32.040 G.)	Using, operating or playing, or permitting to be played, used or operated, of any radio receiving set, musical instrument, audio system, loudspeaker, sound amplifying equipment or other machine or device for the producing or reproducing of sound, which casts sound upon the streets for the purpose of commercial or noncommercial advertising, or attracting the attention of the public to any building, structure or attraction	Source shall not (1) create a loud, annoying or unnecessary noise across a residential area; or (2) occur on a public right-of-way or public space, except as provided in Municipal Code Section 8.32.080.

**Table 4.13-10
Whittier Municipal Code Loud, Annoying, and Unnecessary Noises**

Noise Source ^(A)	Noise Source Description	Standard Applied ^(B)
Radios, Musical Instruments, and Similar Devices (Section 8.32.040 H.)	Using, operating or playing, or the permitting to be played, used or operated, any stereo, radio receiving set, musical instrument, audio system, television set or any like machine or device that produces or reproduces sound.	At all times, the source shall not disturb, at any time, the peace, quiet and comfort of the neighboring inhabitants, with louder volume than is necessary for convenient hearing for the person or persons who are in the room, vehicle, chamber or place in which the machine or device is operated and who are voluntarily listening thereto. During the nighttime, the source shall not be operated as to be plainly audible by inhabitants or occupants of any adjacent or neighboring residential properties or units, or plainly audible at a distance of fifty feet from any nonresidential building, structure, vehicle or place in which it is located.
Yelling and Shouting (Section 8.32.040 I.)	Loud or raucous yelling, shouting, hooting, whistling or singing in the public streets or in public places, or any other place.	Source shall not annoy or disturb the quiet, comfort or repose of persons in any office or inhabitants or occupants of any neighboring or adjacent dwelling, hotel, apartment building or other kind of residence.
Noise in Proximity to Schools, Courts, Churches, or Hospitals (Section 8.32.040 J.)	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.	Source shall not unreasonably interfere with the work of the institution or disturb or unduly annoy patients of the hospital; however, this standard 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.
Hawkers and Peddlers (Section 8.32.040 K.)	The shouting or crying of peddlers, hawkers or vendors.	Source shall not disturb the peace and quiet of the neighborhood.
Erection or Demolition of Buildings (Section 8.32.040 L.)	Erection or demolition of buildings, excluding owner resident additions or remodeling, and the grading and excavation of land including the use of blasting, the startup and use of heavy equipment such as dump trucks and graders and the use of jack hammers except on weekdays between the hours of 7 AM to 6 PM and on Saturdays 8 AM to 5 PM.	The city manager may waive any or all of the provisions of this standard in cases of urgent necessity, or in the interest of public health and safety. The provisions of this standard may also be waived or modified pursuant to a conditional use permit or other development entitlement processed and issued in accordance with the applicable city requirements and procedures.
Late Night Disturbances (Section 8.32.040 M.)	Late night disturbances of any kind	Source shall not be plainly audible by inhabitants or occupants of any adjacent or neighboring residential properties or units, or plainly audible at a distance of fifty feet from a real property boundary, if occurring during nighttime hours.

**Table 4.13-10
Whittier Municipal Code Loud, Annoying, and Unnecessary Noises**

Noise Source ^(A)	Noise Source Description	Standard Applied ^(B)
Source: Whittier Municipal Code Section 8.32.040		
(A) Per Municipal Code Section 8.32.040, the list of enumerated noise sources is illustrative and shall not be construed in any way to be an exclusive or all-inclusive list of noises prohibited by Municipal Code Chapter 8.32.		
(B) Municipal Code Section 8.32.040 sets forth that 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 ROW, public property, or private property open to the public. References to “adjacent” or “neighboring” residences or units means 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.		
(C) Pursuant to Code Section 8.32.020 (G) and (M), “daytime” is the local time of day between 7 AM and 9 PM on weekdays and 9 AM and 9 PM on Saturdays, Sundays, and local legal holidays. “Nighttime” includes those hours excluded from the definition of daytime (i.e., 9 PM on Monday through Thursday to 7 AM on Tuesday through Friday, respectively; 9 PM on Friday and Saturday to 9 AM on Saturday and Sunday, respectively; and 9 PM on Sunday to 7 AM on Monday).		

Municipal Code Section 8.32.050 (Mixed Use Developments) specifies that, due to their unique nature, potential noise control violations in mixed use developments shall be determined pursuant to Section 8.32.030; the distance requirements of Section 8.32.040 shall not apply to mixed use neighborhoods.

Municipal Code Section 8.32.080 (Exemptions and Waivers), establishes the following sources and activities are exempt from the City’s noise level regulations: sounds for the purposes of alerting persons to the existence of an emergency or produced during emergency work for the purpose of securing the immediate health and safety of the public; warning devices necessary for the protection of public safety; outdoor gatherings, public dances, shows and sporting and entertainment events conducted pursuant to a permit or license issued by the City; noise resulting from temporary activities permitted by law and/or for which a waiver has been granted by the Director of Community Development; unamplified human voices (except as regulated by Municipal Code Section 8.32.040 I.); bells, chimes, carillons while being used for religious purposes or in conjunction with religious services, or for national celebrations or public holidays; scheduled stadium events subject to frequency and time limitations, parades, and school activities (including band practice sessions); refuse collection trucks, provided the trucks do not collect refuse between 9 PM and 5 AM; permitted construction during daytime hours; any activity to the extent regulation thereof has been preempted by state or federal law; any activity by the city or any governmental entity; and any activity that is protected by the First Amendment, provided that it takes place during daytime hours, except subject to time, place manner restrictions and/or any regulations imposed by a required or issued permit for such activity.

Municipal Code Section 8.32.100 (Special Events Not Subject to Waiver Requirement) sets forth that a special event scheduled to take place either on public or private property is exempt from the requirement of obtaining a noise disturbance waiver, provided the special event is not scheduled to last more than forty-eight hours.

In addition to Chapter 8.32, Title 9 (Public Peace, Morals, and Welfare), Section 9.56.040 (Noise Restrictions – General) establishes that it is unlawful for any person to conduct any party that produces noise that is sufficiently loud and unreasonable such as to maliciously and willfully disturb the comfort, health, peace, safety or repose of reasonable person(s) of ordinary sensibilities.

4.13.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, GPU implementation would have a significant impact related to noise or vibration if it would result in:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies;
- b) Generation of excessive groundborne vibration or groundborne noise levels; or
- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

With regard to criteria (a), the proposed GPU would result in a significant construction and/or operational noise impact if it would:

- Conflict with or violate any applicable provision of Municipal Code Title 8 (Health and Safety), Chapter 8.32 Noise Control)
- Conflict with or violate any applicable standard or policy in the City’s General Plan Public Safety, Noise, and Health Element
- Generate operational traffic noise levels that increase ambient noise levels at off-site locations by:
 - 5 dBA or more where the ambient noise level would change from normally acceptable to conditionally acceptable;
 - 3 dBA or more where the existing ambient noise would change from conditionally acceptable to normally unacceptable; or
 - 1 dBA or more where the existing ambient noise level is already normally unacceptable or would change from normally unacceptable to clearly unacceptable.

With regard to criterion (b), the proposed GPU would result in a significant construction and/or operational vibration impact if it would:

- Generate construction-related vibration levels that exceed Caltrans’ guidance for potential building damage (see Table 13-6); or
- Generate construction-related vibration levels that exceed FTA or Caltrans’ criteria for human annoyance (see Table 13-7).

With regard to criterion (c), the proposed GPU would expose people living or working in the Plan Area to excessive airport-related noise levels if it would conflict with an applicable airport land use compatibility plan or otherwise expose people to excessive airport-related noise levels from a private air facility.

4.13.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential noise and vibration impacts associated with implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

Noise-related impacts from future development pursuant to general plans can be divided into short-term construction-related impacts and long-term noise exposure impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction with future development allocated by the plan. Long-term noise exposure is associated with major noise sources (e.g., traffic, trains, other transit, aircraft, and stationary sources) and changes in noise levels that may occur in the City as a result of implementation of the GPU.

Existing Noise Regulations (Temporary/Construction Impacts)

Impact NOISE-1 – Would the GPU result in generation of a substantial temporary increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Analysis of Impacts

Implementation of the GPU would involve construction that would result in temporary noise generation, primarily from the use of heavy-duty construction equipment.

The GPU allows for more mixed-use developments and allows for the increase of the overall amount of development (both residential units and non-residential square footage) within the Planning Area. As described in Chapter 3, Project Description (see Table 3-1), the proposed GPU is estimated to increase single-family dwelling units (+472), multi-family dwelling units (+7,023), office land uses (+828, 448 square feet), and industrial land uses (+193,819 square feet) in the Planning Area over an approximately 20-year period, while also reducing commercial land uses (-300,102 square feet) in the Planning Area. The proposed change in land uses is expected to increase population (+20,190 residents) and jobs (+1,396 jobs) in the City.

The GPU would focus new development along major corridors (e.g., Whittier Boulevard, Painter Avenue) and key focal points (intersection of Whittier Boulevard and Santa Fe Springs Road/Washington Boulevard). While low density residential land uses would remain the predominant land use under the GPU, key changes in land uses include an emphasis on high density residential, mixed use, innovation, and medical development along Whittier Boulevard. Although the GPU would focus on new development in certain areas, future individual construction and development projects could occur throughout the Planning Area over the approximately 20-year span of the GPU. These projects could occur on any property (based on land uses allowed by the GPU and could affect existing or future land uses, including potentially sensitive residential, commercial, park, or school land uses that may or may not currently be present near future development areas. Thus, this analysis addresses the potential for the GPU implementation to result in temporary construction noise impacts, wherever they might occur.

Since individual project-specific information is not available at this time, potential short-term (construction-related) noise impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and retail development. Potential construction source noise and vibration levels were developed based on methodologies, reference noise

levels, typical equipment usage, and other operating factors documented and contained in the Federal Highway Administration’s (FHWA) Construction Noise Handbook (FHWA 2006), Federal Transit Administration’s (FTA) Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans’ Transportation and Construction Vibration Guidance Manual (Caltrans 2013a). Reference levels are noise emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Construction activities associated with potential development projects could include: staging, demolition, site preparation (e.g., land clearing), fine and mass grading, utility trenching, foundation work (e.g., excavation, pouring concrete pads, drilling for piers), material deliveries (requiring travel along City roads), building construction (e.g., framing, concrete pouring, welding), paving, coating application, and site finishing work. In general, these activities would involve the use of worker vehicles, delivery trucks, dump trucks, and heavy-duty construction equipment such as (but not limited to) backhoes, tractors, loaders, graders, excavators, rollers, cranes, material lifts, generators, and air compressors. These types of construction activities would generate noise and vibration from the following sources:

- Heavy equipment operations at different work areas. Some heavy equipment would consist of mobile equipment such as a loader and excavator that would move around work areas; other equipment would consist of stationary equipment (e.g., cranes or material hoists/lifts) that would generally operate in a fixed location until work activities are complete. Heavy equipment generates noise from engine operation, mechanical systems, and components (e.g., fans, gears, propulsion of wheels or tracks), and other sources such as back-up alarms. Mobile equipment generally operates at different loads, or power outputs, and produces higher or lower noise levels depending on the operating load. Stationary equipment generally operates at a steady power output that produces a constant noise level.
- Vehicle trips, including worker, vendor, and haul truck trips. These trips are likely to primarily occur on key arterial roads and travel corridors such as, but not limited to, Whittier Boulevard, Painter Avenue, Santa Fe Springs Road, Washington Boulevard, and Lamber Road.

Table 4.13-11 presents the noise levels associated with the typical types of construction equipment that could be used in the Planning Area for future individual projects.

Construction noise impacts generally occur when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction durations last over extended periods of time. Demolition, site preparation, and grading phases typically result in the highest temporary noise levels due to the use of heavy-duty equipment such as bulldozers, excavators, graders, loaders, scrapers, and trucks. As shown in Table 4.13-11, the worst-case L_{eq} and L_{max} noise levels associated with the operation of construction equipment are predicted to be approximately 82 and 85 dBA, respectively, at a distance of 50 feet from the equipment operating area. At an active construction site, it is not uncommon for two or more pieces of construction equipment to operate at the same time and in close proximity. The concurrent operation of two or more pieces

4.13 – Noise

of construction equipment would result in noise levels of approximately 85 to 88 dBA at a distance of 50 feet from equipment operating areas².

² As shown in Table 4.13-11, a single bulldozer provides a sound level of 81 dBA Leq at a distance of 50 feet; when two identical sound levels are combined, the noise level increases to 84 dBA Leq and when three identical sound levels are combined, the noise level increases to 86 dBA Leq. These estimates assume no shielding or other noise control measures are in place at or near the work areas.

**Table 4.13-11
Typical Construction Equipment Noise Levels (dBA)**

Equipment	Reference Noise Level at 50 Feet (L_{max}) ^(A)	Percent Usage Factor ^(B)	Predicted Noise Levels (L_{eq}) at Distance ^(C)					
			50 Feet	100 Feet	200 Feet	300 Feet	400 Feet	500 Feet
Auger Drill Rig	85	0.2	78	72	66	62	60	58
Backhoe	80	0.4	76	70	64	60	58	56
Boring Jack Power Unit	80	0.5	77	71	65	61	59	57
Bulldozer	85	0.4	81	75	69	65	63	61
Compact roller	80	0.2	73	67	61	57	55	53
Compressor	80	0.4	76	70	64	60	58	56
Concrete Mixer	85	0.4	81	75	69	65	63	61
Crane	85	0.16	77	71	65	61	59	57
Delivery Truck	84	0.4	80	74	68	64	62	60
Excavator	85	0.4	81	75	69	65	63	61
Front End Loader	80	0.4	76	70	64	60	58	56
Generator	82	0.5	79	73	67	63	61	59
Horizontal Boring Hydraulic Jack	80	0.25	74	68	62	58	56	54
Impact Pile Driver (low)	95	0.2	88	82	76	72	70	68
Impact Pile Driver (high)	101	0.2	94	88	82	78	76	74
Man Lift	85	0.2	78	72	66	62	60	58
Paver	85	0.5	82	76	70	66	64	62
Pneumatic tools	85	0.5	82	76	70	66	64	62
Pumps	77	0.5	74	68	62	58	56	54
Roller	85	0.2	78	72	66	62	60	58
Scraper	85	0.4	81	75	69	65	63	61
Tractor	84	0.4	80	74	68	64	62	60
Vacuum Truck	85	0.4	81	75	69	65	63	61

Sources: Caltrans 2013a and FHWA 2010

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount of time the equipment produces noise over the time period.

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans, 2009: L_{eq} (hourly) = L_{max} at 50 feet - $20\log(D/50) + 10\log(UF)$, where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

The magnitude of each individual future project’s temporary and periodic increase in ambient noise levels would be dependent upon a number of project-specific factors that are not known at this time, including: the amount and type of equipment being used; the distance between the area where equipment is being operated and the location of the specific land use or receptor where noise levels are being evaluated; the time of day construction activities are occurring; the presence or absence of any walls, buildings, or other barriers that may absorb or reflect sound waves; the total duration of the construction activities; and the existing ambient noise levels near construction areas. For example, a noise level of 88 dBA L_{max} would be similar to typical L_{max} levels measured throughout the Planning Area near Whittier Boulevard, but sustained L_{eq} levels of 85 dBA would be approximately 15 to 22 dBA above daytime ambient conditions along key roadways (e.g., ST-1, ST-2, and ST-4 to ST-8, see Table 4.13-2), and up to 35 dBA above daytime ambient conditions in residential neighborhoods away from major roadways (e.g., ST-2; see Table 4.13-2). Typically, sustained construction noise levels of 80 to 85 dBA or higher would require the implementation of construction noise control practices such as staging area restrictions (e.g., siting staging areas away from sensitive receptors), equipment controls (e.g., covered engines and use of electrical hook-ups instead of generators), and/or the installation of temporary noise barriers of sufficient height, size (length or width), and density to achieve targeted noise reductions.

The City’s proposed GPU Public Safety, Noise, and Health Element focuses on allowing Whittier residents to enjoy quiet neighborhoods and outdoor activities and includes policies that protect residents from excessive noise levels (including construction noise) that could disturb and disrupt human activities and affect the physical and psychological health of individuals. Table 4.13-12 summarizes the proposed GPU goals and policies that address construction noise within the City.

**Table 4.13-12
Proposed GPU Goals and Policies Pertaining to Construction Noise**

Plan Element	Goal	Policy/Program	How does the General Plan Avoid or Reduce the Impact?	Applicable Significance Criteria
Public Safety, Noise, and Health	10: Noise Levels community-wide that allow residents to enjoy quiet neighborhoods and outdoor activities	10.5: Noise Enforcement. Use the provisions in the City’s noise ordinance to abate unlawful noise. 10.6: Construction Noise. Enforce Municipal Code noise controls for construction projects.	Enforces provisions of the Whittier Municipal Code that are intended to control loud and unnecessary noises that may affect and/or be a detriment to residents’ public health, comfort, convenience, safety, welfare, and prosperity.	a) Generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.

**Table 4.13-12
Proposed GPU Goals and Policies Pertaining to Construction Noise**

Plan Element	Goal	Policy/Program	How does the General Plan Avoid or Reduce the Impact?	Applicable Significance Criteria
		PSNH 32: Acoustical Analysis Reports. Require development projects subject to discretionary approval to assess potential construction noise impacts and noise associated with on-going operations on nearby sensitive uses and to minimize impacts on those uses.	Requires discretionary projects assess and minimize potential construction noise impacts on sensitive land uses.	a) Generate a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.

2021 General Plan Update. The City's Public Safety, Noise, and Health Element examines the City's local noise environment. The following goal and policies contained in the Public Safety, Noise, and Health Element would be applicable to construction noise that would be generated in the Planning Area by the potential growth envisioned in the proposed GPU:

Public Safety, Noise, and Health Element

Goal 10: Noise levels community-wide that allow residents to enjoy quiet neighborhoods and outdoor activities.

PSHN-10.3: Control at their sources any sounds which exceed accepted community noise levels.

PSHN-10.5: Use the provisions in the City's noise ordinance to abate unlawful noise.

PSHN-10.6: Enforce Municipal Code noise controls for construction projects.

PSHN-10.9: Regulate the use of sound-amplifying equipment to prevent impacts on sensitive receptors.

General Plan Analysis. Proposed GPU Goal 10 and its policies establish the overall goal and intent of the City to protect noise sensitive uses by limiting construction noise levels. Although neither the Whittier Municipal Code or proposed GPU establish specific, numeric noise standards (e.g., 90 dBA L_{eq}) for construction activities, the GPU sets forth a requirement to assess and minimize construction noise levels as part of the development review process. Furthermore, Whittier Municipal Code Section 8.32.040 limits the hours of construction activities to 7 AM to 6 PM on weekdays and 8 AM to 5 PM on Saturdays. The City's existing Municipal Code requirements and proposed GPU policies would ensure construction activities do not occur during the most sensitive time periods (e.g., evening and nighttime periods) and require future discretionary projects to assess and minimize construction noise levels consistent with City goals, policies, and code standards.

Summary and Conclusions. Future development under the GPU would result in construction activities that could temporarily increase ambient noise levels by 10 dB or more. The City's existing Municipal Code requirements and proposed GPU policies would ensure construction activities do not occur during the most sensitive time periods (e.g., evening and nighttime periods) and require future discretionary projects to assess and minimize construction noise levels consistent with City goals, policies, and code standards.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Existing Noise Regulations (Permanent/Operational Impacts)

Impact NOISE-2 – Would the GPU result in generation of a substantial permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Analysis of Impacts

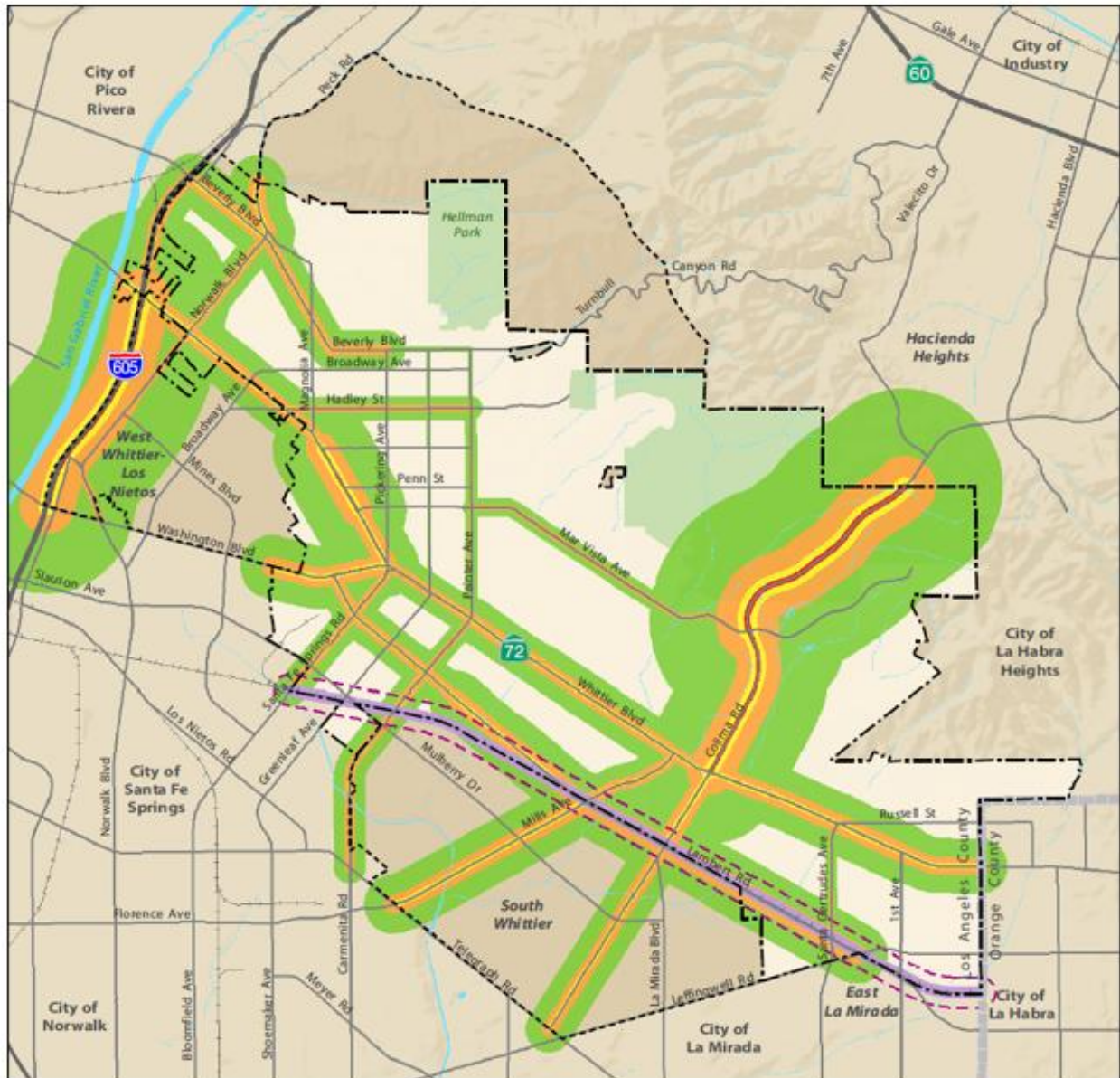
Implementation of the GPU could have the potential to change the existing amounts and types of land uses within the Planning Area. These potential land use changes could increase the number of residents and employees. This possible increase in population and employment could lead to increased vehicle traffic on the local roadway system, which could result in traffic-related noise levels that pose land use compatibility issues or result in a substantial permanent increase in traffic-related noise levels throughout the Planning Area. GPU implementation could also involve increases in stationary noise and other sources of noise within the Planning Area. These potential effects are evaluated below.

Increases in Traffic and Rail Noise Levels

Although the GPU does not authorize any specific development project or increase existing vehicular traffic levels, the City contracted with a professional transportation engineering firm (Fehr and Peers) to conduct travel demand modeling associated with the proposed GPU land use changes (Fehr and Peers, 2021; see Chapter 4.17, Transportation, and Appendix E). The travel demand modeling provides a sufficient level of detail to generally evaluate the potential future increases in traffic-related noise levels associated with projected growth. Future 2040 GPU traffic noise levels were computed using the same methodology (TNM Version 3.0) and data sources used to calculate existing (Year 2019) and future (Year 2040) baseline traffic noise levels (see Section 4.13.2), except that 2040 GPU traffic levels were obtained from the TIA prepared for the GPU and entered into the traffic model.

The proposed GPU does not authorize or increase any freight rail operation because they are outside the jurisdictional authority of the City. As described in Section 4.13.2, the 2018 California State Rail Plan acknowledges that freight train service is anticipated to double by 2040. If this were to occur, rail noise levels along the Union Pacific railroad corridor could increase to 70 CNEL at distance of 50 feet from the center of the railroad track. Future transportation noise contours are shown in Exhibit 4.13-3. The distances to the modeled transportation noise CNEL contours are shown in Table 4.13-13. In addition, Table 4.13-14 summarizes the net change in Year 2040

Exhibit 4.13-3 Future GPU Transportation Noise Contours (2040)



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Open Space
- Waterbodies

**Future Noise Contours
Community Noise Equivalent Levels (CNEL)**

- 75 CNEL
- 70 CNEL
- 65 CNEL
- 60 CNEL

**Future Rail Noise Contours
Community Noise Equivalent Levels (CNEL)**

- 65 CNEL
- 60 CNEL

Source: City of Whittier, 2017; MIG, 2021.

Prepared by MIG, May 2021.



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**Table 4.13-13
Future GPU Transportation Noise Contour Distances (2040)**

Road / Segment	Predicted CNEL 50 Feet from Road Centerline (dBA)	CNEL Contour and Distance from Road Centerline in Feet			
		75	70	65	60
Beverly Boulevard					
West City Limit to Norwalk Blvd	72.2	26	83	262	830
Norwalk Blvd to Pickering Ave	71.2	21	66	208	659
Pickering Ave to Painter	62.7	3	9	29	93
Colima Road					
North City Limit to Mar Vista St	78.2	104	330	1,045	3,303
Mar Vista St to Whittier Blvd	76.8	76	239	757	2,393
Whittier Blvd to Lambert Rd	73.2	33	104	330	1,045
Lambert Rd to Telegraph Rd	72.0	25	79	251	792
Greenleaf Avenue					
Beverly Blvd to Whittier Blvd	61.3	2	7	21	67
Whittier Blvd to South City Limit	58.2	1	3	10	33
Hadley Street					
Whittier Blvd to Painter Ave	69.1	13	41	129	406
Lambert Road					
Washington Blvd to Santa Fe Springs Rd	71.4	22	69	218	690
Santa Fe Springs Rd. to Laurel Ave	71.2	21	66	208	659
Laurel Ave to Calmada Ave	72.7	29	93	294	931
Calmada Ave to Mills Ave	72.9	31	97	308	975
Mills Ave to Cole Ave	73.2	33	104	330	1,045
Cole Ave to Leffingwell	73.2	33	104	330	1,045
Mar Vista Street					
Painter Ave to Colima Rd	67.8	10	30	95	301
Mills Avenue					
Whittier Blvd to Lambert Rd	71.2	21	66	208	659
Lambert Rd to Telegraph Rd	73.0	32	100	315	998
Norwalk Boulevard/Workman Mill Road					
North City Limit to Beverly Blvd	72.8	30	95	301	953
Beverly Blvd to Whittier Blvd	70.5	18	56	177	561
Whittier Blvd to Washington Blvd	68.8	12	38	120	379
Painter Avenue					
Beverly Blvd to Hadley St	61.0	2	6	20	63
Hadley St to Whittier Blvd	66.2	7	21	66	208
Whittier Blvd to Lambert Rd	68.5	11	35	112	354
Lambert Rd to Telegraph Rd	70.3	17	54	169	536
Pickering Avenue					
Beverly Blvd to Whittier Blvd	61.5	2	7	22	71
Santa Fe Springs Road					
Whittier Blvd to South City Limit	70.2	17	52	166	524
Santa Gertrudes Avenue					
Whittier Blvd to Leffingwell Rd	66.1	6	20	64	204

Washington Boulevard					
West City Limit to Santa Fe Springs Rd	73.3	34	107	338	1,069
Whittier Boulevard					
West City Limit to Norwalk Blvd	73.4	35	109	346	1,094
Norwalk Blvd to Hadley St	72.4	27	87	275	869
Hadley St to Philadelphia St	72.1	26	81	256	811
Philadelphia St to Mar Vista St	75.2	52	166	524	1,656
Mar Vista St to Santa Fe Springs Rd/Washington Blvd	70.3	34	107	339	1,072
Santa Fe Springs Rd/Washington Blvd to Painter Ave	70.8	19	60	190	601
Painter Ave to Colima Rd	71.8	24	76	239	757
Colima Rd to 1st Ave	73.1	32	102	323	1,021
1st Ave to East City Limit	72.7	29	93	294	931
Interstate 605 (with barriers)					
Beverly Blvd to Whittier Blvd	67.0	24	75	238	752
Whittier Blvd to Washington Blvd	72.9	92	292	925	2,925
Union Pacific Railroad Line					
Lamber Road / City Limit	70	16	50	158	500
Source: MIG, 2021 (see Appendix E)					
(A) CNEL values are as estimated 50 feet from the road/rail track center, excepting Whittier Blvd between Mar Vista Street and Washington Blvd (CNEL at 100 feet) and I-605 (CNEL at 150 feet).					

Table 4.13-14
Year 2040 Traffic Noise Levels With and Without General Plan Update

Road / Segment	Year 2040 No GPU		Year 2040 GPU		Net Change	
	ADT	CNEL ^(A)	ADT	CNEL ^(A)	ADT	CNEL
Beverly Boulevard						
West City Limit to Norwalk Blvd	39,313	71.9	41,140	72.2	1,827	0.3
Norwalk Blvd to Pickering Ave	33,477	71	34,959	71.2	1,483	0.2
Pickering Ave to Painter	10,066	62.9	11,434	62.7	1,368	-0.2
Colima Road						
North City Limit to Mar Vista St	72,827	78	73,522	78.2	695	0.2
Mar Vista St to Whittier Blvd	53,236	76.7	54,591	76.8	1,355	0.1
Whittier Blvd to Lambert Rd	32,045	73.2	32,409	73.2	364	0.0
Lambert Rd to Telegraph Rd	22,654	72	23,223	72.0	569	0.0
Greenleaf Avenue						
Beverly Blvd to Whittier Blvd	6,434	60.6	6,144	61.3	-290	0.7
Whittier Blvd to South City Limit	2,627	58.1	2,719	58.2	92	0.1
Hadley Street						
Whittier Blvd to Painter Ave	14,670	68	16,713	69.1	2,043	1.1
Lambert Road						
Washington Blvd to Santa Fe Springs Rd	24,409	70.3	31,888	71.4	7,479	1.1
Santa Fe Springs Rd. to Laurel Ave	28,181	70.8	30,332	71.2	2,151	0.4
Laurel Ave to Calmada Ave	30,368	72.2	32,174	72.7	1,806	0.5

Table 4.13-14
Year 2040 Traffic Noise Levels With and Without General Plan Update

Road / Segment	Year 2040 No GPU		Year 2040 GPU		Net Change	
	ADT	CNEL ^(A)	ADT	CNEL ^(A)	ADT	CNEL
Calmada Ave to Mills Ave	31,877	72.6	33,291	72.9	1,414	0.3
Mills Ave to Cole Ave	30,236	73	30,705	73.2	470	0.2
Cole Ave to Leffingwell	33,407	73.1	33,830	73.2	423	0.1
Mar Vista Street						
Painter Ave to Colima Rd	13,192	66.6	15,101	67.8	1,910	1.2
Mills Avenue						
Whittier Blvd to Lambert Rd	22,478	70.9	23,815	71.2	1,338	0.3
Lambert Rd to Telegraph Rd	27,173	72.7	28,691	73.0	1,518	0.3
Norwalk Boulevard/Workman Mill Road						
North City Limit to Beverly Blvd	30,844	72.6	32,143	72.8	1,299	0.2
Beverly Blvd to Whittier Blvd	18,959	70.6	19,718	70.5	759	-0.1
Whittier Blvd to Washington Blvd	24,491	68.6	24,231	68.8	-259	0.2
Painter Avenue						
Beverly Blvd to Hadley St	9,069	60.6	10,862	61.0	1,794	0.4
Hadley St to Whittier Blvd	14,239	65.8	14,720	66.2	482	0.4
Whittier Blvd to Lambert Rd	13,334	68	13,917	68.5	583	0.5
Lambert Rd to Telegraph Rd	19,294	69.8	20,523	70.3	1,229	0.5
Pickering Avenue						
Beverly Blvd to Whittier Blvd	8,526	60.6	8,560	61.5	35	0.9
Santa Fe Springs Road						
Whittier Blvd to South City Limit	20,788	70.2	21,256	70.2	468	0.0
Santa Gertrudes Avenue						
Whittier Blvd to Leffingwell Rd	19,015	65.6	19,619	66.1	604	0.5
Washington Boulevard						
West City Limit to Santa Fe Springs Rd	30,463	73.3	29,606	73.3	-857	0.0
Whittier Boulevard						
West City Limit to Norwalk Blvd	49,213	72.6	50,668	73.4	1,455	0.8
Norwalk Blvd to Hadley St	32,427	71.4	35,507	72.4	3,080	1.0
Hadley St to Philadelphia St	42,661	71.5	44,102	72.1	1,441	0.6
Philadelphia St to Mar Vista St	43,570	75	43,510	75.2	-60	0.2
Mar Vista St to Santa Fe Springs Rd/Washington Blvd	34,116	70.4	33,208	70.3	-908	-0.1
Santa Fe Springs Rd/Washington Blvd to Painter Ave	34,764	70.3	36,168	70.8	1,405	0.5
Painter Ave to Colima Rd	40,700	71.7	41,586	71.8	886	0.1
Colima Rd to 1st Ave	44,017	73.1	44,089	73.1	72	0.0
1st Ave to East City Limit	29,539	72.6	30,572	72.7	1,033	0.1
Interstate 605 (with barriers)						
Beverly Blvd to Whittier Blvd	255,823	67.0	255,823	67.0	0	0.0
Whittier Blvd to Washington Blvd	247,571	72.9	247,571	72.9	0	0.0

Source: MIG, 2021 (see Appendix E)

(A) CNEL values are as estimated 50 feet from the road center, excepting Whittier Blvd between Mar Vista Street and Washington Blvd (CNEL at 100 feet) and I-605 (CNEL at 150 feet).

ADT and traffic noise levels that would occur with implementation of the GPU. Refer to Appendix E for detailed transportation noise modeling results.

As shown in Table 4.13-14, the results of the traffic noise modeling indicate that traffic noise levels within the Planning Area would continue to be highest along major travel corridors such as Beverly Boulevard, Colima Road, Lambert Road, Washington Boulevard, and Whittier Boulevard; however, the GPU would not substantially increase traffic volumes or traffic noise levels along these roadways. The traffic noise modeling indicates the GPU could increase traffic noise levels by more than one decibel on only three roadway segments: Hadley Street, between Whittier Boulevard and Painter Avenue, Lambert Road, between Washington Boulevard and Santa Fe Springs Road, and Mar Vista Street, between Painter Ave and Colima Road. Specifically, the modeling shows:

- Traffic noise levels along Hadley Street between Whittier Boulevard and Painter Avenue are estimated to be up to 67.6 CNEL under existing 2019 conditions and 68 CNEL under future baseline 2040 conditions. These noise levels are considered conditionally acceptable for existing residential and school (70 CNEL) and potential future residential (70 CNEL) land uses that border this segment of Hadley Street. These noise levels are also considered acceptable for the existing and potential future commercial land uses (70 CNEL) that border this segment of Hadley Street. With the GPU, traffic noise levels are estimated to increase to approximately 69.1 CNEL. The GPU, therefore, would increase noise levels by 1.0 decibel or more along this roadway segment; however, it would not contribute to a change in noise exposure compatibility (residential and school land uses would remain below the 70 CNEL conditionally acceptable noise exposure limit and commercial land uses would remain below the 70 CNEL acceptable noise exposure limit). This impact is considered a less than significant impact.
- Traffic noise levels along Lambert Road between Washington Boulevard Santa Fe Springs Road are estimated to be up to 70.1 CNEL under existing 2019 conditions and 70.3 CNEL under future baseline 2040 conditions. These noise levels are considered conditionally acceptable for the existing commercial land uses (75 CNEL) that border this segment of Lambert Road. With the GPU, traffic noise levels are estimated to increase to approximately 71.4 CNEL. In addition, the GPU plans for mixed-use residential and commercial uses along this segment of Lambert Road. A noise exposure level of 71.4 is considered normally unacceptable for residential land uses (70 CNEL). The GPU would increase noise levels by 1.0 decibel or more along this segment of Lambert Road; however, it would not contribute to a change in noise exposure compatibility under existing or future conditions (commercial land uses would remain below the 75 CNEL conditionally acceptable noise exposure limit and residential land uses would remain below the 75 CNEL clearly unacceptable noise exposure limit). This impact is considered a less than significant impact.
- Traffic noise levels along Mar Vista Street between Painter Avenue and Colima Road are estimated to be up to 67 CNEL under existing 2019 conditions and 66.6 CNEL under future baseline 2040 conditions. These noise levels are considered conditionally acceptable for the existing residential land uses (70 CNEL) that border this segment of Mar Vista Street. With the GPU, traffic noise levels are estimated to increase to approximately 67.8 CNEL. The GPU, therefore, would increase noise levels by 1.0 decibel or more along this roadway segment; however, it would not contribute to a change in noise exposure compatibility (residential land uses would remain below the 70 CNEL conditionally acceptable noise exposure limit). This impact is considered a less than significant impact.

- Although traffic noise levels along Whittier Boulevard would not increase by more than 1.0 dB along any segment, total traffic noise levels would reach between 70.3 CNEL and 75.2 CNEL, with higher traffic noise levels generally occurring west of the Whittier Boulevard and Santa Fe Springs Road/Washington Boulevard intersection. While traffic noise levels of 70 to 75 CNEL are considered conditionally acceptable for the commercial land uses that primarily front Whittier Boulevard, the GPU would allow for mixed-use and higher density residential land uses along much of Whittier Boulevard. Therefore, future residential land uses could be exposed to traffic noise levels of 70.3 to 75.2 CNEL, which fall in the range of normally unacceptable (up to 75 CNEL) to clearly unacceptable (75 CNEL and above) noise exposure limits for residential land uses.

Pursuant to the State noise standards, California Building Code, Section 1207.4, new residential structures would be required to be constructed such that interior noise levels do not exceed an 45 dBA CNEL. Standard construction techniques and materials are commonly accepted to provide a minimum exterior to interior noise attenuation (i.e., reduction) of 22–25 dBA with all windows and doors closed (HUD 2009a and 2009b).³ These interior noise reductions would be adequate for some developments occurring under the GPU to meet interior noise standards. New residential and mixed-use developments along Whittier Boulevard, particular along segments with higher speed limits (40 mph or more) could require additional noise attenuation design features since traffic noise levels along these roadways are estimated to exceed 70 CNEL under existing and future conditions. Adherence to the State’s mandatory noise standards would ensure residential and mixed-use structures within the Planning Area meet or exceed the 45 dBA CNEL standard.

The City’s proposed GPU Public Safety, Noise, and Health Element focuses on allowing Whittier residents to enjoy quiet neighborhoods and outdoor activities and includes the protection of residents from excessive noise levels (including construction noise) that could disturb and disrupt human activities and affect the physical and psychological health of individuals. Table 4.13-15 summarizes the proposed GPU goals and policies that address ambient noise exposure and operational noise levels within the City.

**Table 4.13-15
Proposed GPU Goals and Policies Pertaining to
Operational Noise Levels and Community Noise Exposure**

Plan Element	Goal	Policy/Program	How does the General Plan Avoid or Reduce the Impact?	Applicable Significance Criteria

³ The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 35 dBs of attenuation between exterior and interior noise levels. This reduction may be slightly lower (2-3 dBs) for traffic noise due to the specific frequencies associated with traffic noise. Increasing window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade.

**Table 4.13-15
Proposed GPU Goals and Policies Pertaining to
Operational Noise Levels and Community Noise Exposure**

Plan Element	Goal	Policy/Program	How does the General Plan Avoid or Reduce the Impact?	Applicable Significance Criteria
Public Safety, Noise, and Health	10: Noise Levels community- wide that allow residents to enjoy quiet neighborhoods and outdoor activities	10.1: Roadway Noise. Work toward the separation of buffering major roadways from noise-sensitive land uses such as residences, care facilities, schools, and hospitals. 10.2: Buffers and Barriers. Consider steps to correct existing noise problems. Avoid future problems through design measures such as buffers and barriers or through abatement procedures.	Identifies vehicle traffic as a key contributor to the City’s noise environment and plans for reducing traffic noise effects on noise-sensitive land uses.	a) Generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.
Public Safety, Noise, and Health	10: Noise Levels community- wide that allow residents to enjoy quiet neighborhoods and outdoor activities	10.3: Community Noise Levels. Control at their sources any sounds which exceed accepted community noise levels.	Establishes acceptable community noise levels that will be considered during the development review process.	a) Generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.

**Table 4.13-15
Proposed GPU Goals and Policies Pertaining to
Operational Noise Levels and Community Noise Exposure**

Plan Element	Goal	Policy/Program	How does the General Plan Avoid or Reduce the Impact?	Applicable Significance Criteria
Public Safety, Noise, and Health	10: Noise Levels community- wide that allow residents to enjoy quiet neighborhoods and outdoor activities	10.4: Noise Impacts. Consider noise impacts as part of the development review process, particularly the location of parking, recreational activities, crowd noises, ingress/egress/loading, and refuse collection areas relatively to surrounding residential development and other noise-sensitive land uses. Work toward the separation of buffering major roadways from noise-sensitive land uses such as residences, care facilities, schools, and hospitals	Requires discretionary projects assess and minimize potential construction noise impacts on sensitive land uses.	a) Generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.
Public Safety, Noise, and Health	10: Noise Levels community- wide that allow residents to enjoy quiet neighborhoods and outdoor activities.	Policy 10.5: Noise Enforcement. Use the provisions in the City's noise ordinance to abate unlawful noise.	Enforces provisions of the Whittier Municipal Code that are intended to control loud and unnecessary noises that may affect and/or be a detriment to residents' public health, comfort, convenience, safety, welfare, and prosperity.	a) Generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.

**Table 4.13-15
Proposed GPU Goals and Policies Pertaining to
Operational Noise Levels and Community Noise Exposure**

Plan Element	Goal	Policy/Program	How does the General Plan Avoid or Reduce the Impact?	Applicable Significance Criteria
Public Safety, Noise, and Health	10: Noise Levels community- wide that allow residents to enjoy quiet neighborhoods and outdoor activities.	<p>Policy 10.7: Outdoor Activity Noise Levels. Minimize new residential or other noise-sensitive land use development in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce outdoor activity area noise levels to a “normally acceptable” community noise equivalent level (CNEL).</p> <p>Policy 10.8: Industrial and Trucking Noise. Require industrial uses and trucking-related uses to incorporate buffers that maintain acceptable noise levels for surrounding uses and areas.</p> <p>Policy 10.9: Sound-Amplifying Equipment. Regulate the use of sound-amplifying equipment to prevent impacts on sensitive receptors.</p>	<p>Requires development projects to incorporate site and building design measures to address elevated ambient noise levels where necessary.</p> <p>Requires development projects to control specific noise sources to maintain acceptable noise levels at noise-sensitive land uses.</p>	a) Generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.
Public Safety, Noise, and Health	10: Noise Levels community- wide that allow residents to enjoy quiet neighborhoods and outdoor activities.	PSNH 32: Acoustical Analysis Reports. Require development projects subject to discretionary approval to assess potential construction noise impacts and noise associated with on-going operations on nearby sensitive uses and to minimize impacts on those uses.	Requires discretionary projects assess and minimize potential construction noise impacts on sensitive land uses.	a) Generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards in the local general plan or noise ordinance.

2021 General Plan Update. The City’s Public Safety, Noise, and Health Element examines the City’s local noise environment and establishes standards to encourage noise-compatible land use patterns. The element focuses on noise concerns from stationary sources like manufacturing and construction as well as roadway noise. The following policies contained in the Public Safety, Noise, and Health Element would be applicable to operational noise that would be generated in the Planning Area by the potential growth envisioned in the proposed GPU:

Public Safety, Noise, and Health Element

Goal 10: Noise levels community-wide that allow residents to enjoy quiet neighborhoods and outdoor activities.

PSHN-10.1: Work toward the separation of buffering major roadways from noisesensitive land uses such as residences, care facilities, schools, and hospitals.

PSHN-10.2: Consider steps to correct existing noise problems. Avoid future problems through design measures such as buffers and barriers or through abatement procedures.

PSHN-10.3: Control at their sources any sounds which exceed accepted community noise levels.

PSHN-10.4: Consider noise impacts as part of the development review process, particularly the location of parking, recreational activities, crowd noises, ingress/egress/loading, and refuse collection areas relative to surrounding residential development and other noise-sensitive land uses.

PSHN-10.5: Use the provisions in the City’s noise ordinance to abate unlawful noise.

PSHN-10.7: Minimize new residential or other noise-sensitive land use development in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce outdoor activity area noise levels to a “normally acceptable” community noise equivalent level (CNEL).

PSHN-10.8: Require industrial uses and trucking-related uses to incorporate buffers that maintain acceptable noise levels for surrounding uses and areas.

PSHN-10.9: Regulate the use of sound-amplifying equipment to prevent impacts on sensitive receptors.

General Plan Analysis. Proposed GPU Goal 10 and Policies 10.1 to 10.5 and 10.7 to 10.9 establish the overall goal and intent of the City to protect noise sensitive uses and minimize traffic-related noise impacts. As shown in Table 4.13-14 and discussed above, the proposed GPU would not result in a significant increase in traffic noise levels in the Planning Area . The GPU sets forth the City’s intent to establish clear and enforced noise regulations for all land uses, to consider operational noise impacts during the development review process, and to limit new development in noise impacted areas unless the development includes mitigation measures to reduce noise levels to acceptable levels. In addition, the proposed GPU’s Land Use and Community Character and Circulation Elements include goals and policies to reduce vehicle trips on the City’s roads, which would lower traffic-related noise levels. This impact is considered less than significant.

Increases in Stationary and Other Sources of Noise

4.13 – Noise

Stationary and other sources of noise in the Planning Area include, but are not limited to, landscape and building maintenance activities, stationary mechanical equipment (e.g., pumps, generators, HVAC units), garbage collection activities, commercial and industrial activities, and other stationary and area sources such as people's voices, amplified music, and public address systems.

Noise generated by residential or commercial uses is generally short-term and intermittent. Industrial uses may generate noise on a more continual basis due to the types of their activities. The GPU would increase residential and commercial development within the Planning Area and, in particular, allow mixed use development in which residential and commercial uses are integrated into a single development project. These types of developments tend to have higher noise levels associated with the mix of land uses contained within them. Future planned development could also result in new stationary and area sources as well as exposure of new sensitive land uses to existing stationary and area sources.

The City's existing General Plan includes goals and policies that minimize the impact of ambient and operational noise levels throughout the City (see Table 4.13-15). In addition, Whittier Municipal Code Title 8 (Health and Safety), Chapter 8.32 Noise Control) establishes the City's standards related to noise, including 13 specific loud, annoying, and unnecessary noises that may have an effect on, and be detrimental to, the public health, comfort, convenience, safety, welfare and prosperity of the City's residents (see Table 4.13-10). GPU policy 10.5 specifically calls out enforcement of the City's Noise Ordinance to abate unlawful noise.

Proposed GPU policies would protect residents from excessive stationary noise sources and ensure new land uses meet the Whittier Municipal Code noise standards through evaluation and design considerations. Thus, stationary and other sources of noise would be controlled by the General Plan goals and policies, and the Municipal Code, which limit allowable noise levels at adjacent properties. Therefore, future stationary noise sources would comply with City standards and would not expose people to a substantial permanent increase in noise levels.

Summary and Conclusions. The GPU sets forth the City's intent to establish clear and enforced noise regulations for all land uses, to consider operational noise impacts during the development review process, and to limit new development in noise impacted areas unless the development includes mitigation measures to reduce noise levels to acceptable levels. In addition, proposed GPU policies would protect residents from excessive stationary noise sources and ensure new land uses meet the Whittier Municipal Code noise standards through evaluation and design considerations. Thus, stationary and other sources of noise would be controlled by the General Plan goals and policies, and the Municipal Code, which limits allowable noise levels at adjacent properties. Therefore, future operational would comply with City standards and would not expose people to a substantial permanent increase in noise levels from transportation or non-transportation noise sources.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Ground-borne Vibration and Noise Levels

Impact NOISE-3– Would the GPU result in generation of excessive groundborne noise levels?

Analysis of Impacts

Temporary Construction Vibration Levels

Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Vibration generated by construction equipment spreads through the ground and diminishes with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and at high levels can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping (e.g., a hospital). Ground vibration can also potentially damage the foundations and exteriors of existing structures even if it does not result in a negative human response. Pile drivers and other pieces of high-impact construction equipment are generally the primary cause of construction-related vibration impacts. The use of such equipment is generally limited to sites where there are extensive layers of very hard materials (e.g., compacted soils, bedrock) that must be loosened or penetrated to achieve grading and foundation design requirements. The need for such methods is usually determined through site-specific geotechnical investigations that identify the subsurface materials within the grading envelope, along with foundation design recommendations and the construction methods needed to safely permit development of a site.

Construction equipment and activities are categorized by the nature of the vibration they produce. Equipment or activities typical of continuous vibration include excavation equipment, static compaction equipment, vibratory pile drivers, and pile-extraction equipment. Equipment or activities typical of transient (single-impact) or low-rate, repeated impact vibration include impact pile drivers, and crack-and-seat equipment. Pile driving and blasting activities produce the highest levels of ground vibration and can result in structural damage to existing buildings.

Since individual project-specific information is not available at this time, potential short-term construction-related vibration impacts can only be evaluated based on the typical construction activities associated with residential, commercial, and industrial development. Potential construction source vibration levels were developed based on methodologies, reference noise levels, and typical equipment usage and other operating factors documented and contained in the FHWA's Construction Noise Handbook (FHWA, 2006), FTA's Transit Noise and Vibration Impact Assessment document (FTA 2018), and Caltrans' Transportation and Construction Vibration Guidance Manual (Caltrans, 2020). Reference levels are vibration emissions for specific equipment or activity types that are well-documented and for which their usage is common practice in the field of acoustics.

Future development as a result of the GPU would occur in primarily urban settings where land is already disturbed and, therefore, is not likely to require blasting, which is typically used to remove unwanted rock or earth. Standard construction equipment (e.g., bulldozers, trucks, jackhammers) generally does not cause vibration that could cause structural or cosmetic damage but may be felt by nearby receptors. Table 4.13-16 presents the typical types of equipment that could be used for future development activities in the Planning Area.

**Table 4.13-16
Ground-borne Vibration and Noise from Typical Construction Equipment**

Equipment	Peak Particle Velocity (in/sec) ^(A)			Velocity Decibels (VdB) ^(B)		
	25 feet	50 feet	100 feet	25 feet	50 feet	100 feet
Small bulldozer	0.003	0.001	0.001	58	49	40
Jackhammer	0.035	0.016	0.008	79	70	61
Rock Breaker	0.059	0.028	0.013	83	74	65
Loaded truck	0.076	0.035	0.017	86	77	68
Auger Drill Rig	0.089	0.042	0.019	87	78	69
Large bulldozer	0.089	0.042	0.019	87	78	69
Vibratory Roller	0.210	0.098	0.046	94	85	76
Impact Pile Driver (upper range)	1.518	0.708	0.330	112	103	94
Impact Pile Driver (typical)	0.644	0.300	0.140	104	95	86
Sonic Pile Driver (upper range)	0.734	0.42	0.160	105	96	87
Sonic Pile Driver (typical)	0.170	0.079	0.037	93	84	75

Sources: Caltrans 2013 and FTA 2018

(A) Estimated PPV calculated as: $PPV(D) = PPV(ref) * (25/D)^{1.1}$ where $PPV(D)$ = Estimated PPV at distance; $PPV(ref)$ = Reference PPV at 25 ft; D = Distance from equipment to receiver; and n = ground attenuation rate (1.1 for dense compacted hard soils).

(B) Estimated L_v calculated as: $L_v(D) = L_v(25 \text{ feet}) - 30 \log(D/25)$ where $L_v(D)$ = estimated velocity level in decibels at distance, $L_v(25 \text{ feet})$ = RMS velocity amplitude at 25 ft; and D = distance from equipment to receiver.

As shown in Table 4.13-12, specific vibration levels associated with typical construction equipment are highly dependent on the type of equipment used. Vibration levels dissipate rapidly with distance, such that even maximum impact pile driving activities would result in vibration levels below Caltrans' recommended 0.5 PPV threshold for transient vibration-induced damage in historic, older buildings at a distance 100 feet; all other activities would be below Caltrans' threshold for transient vibration-induced damage in historic, older buildings at a distance of 25 feet. For human responses, maximum impact pile driving activities would result in groundborne vibration and noise levels below Caltrans' threshold for a distinctly perceptible response (0.24 PPV) and the FTA's vibration standard for infrequent events at residential lands (80 VdB) at a distance of approximately 150 feet and 300 feet, respectively. All other activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses.

Long-Term Ground-borne Vibration Levels

The proposed GPU could facilitate the construction of mixed-use projects at the intersection of Lambert Road and 1st Ave, adjacent to the existing Union Pacific railroad corridors along Lambert Road. With regards to vibration impacts on new development near railroads, human disturbance is the primary concern. It is extremely rare for vibration levels from trains passing to result in structural damage to buildings. In addition, buses and other transit vehicles are not

anticipated to generate excessive vibration levels that would disturb sensitive receptors because these vehicles are travelling at lower speeds and do not generate substantial vibrations.

The FTA's *Transit Noise and Vibration Impact Assessment* document provides recommended ground-borne vibration criteria for general environmental assessments. The vibration criteria vary according to the sensitivity of the land use and the frequency of vibration events (i.e., number of trains passing by the sensitive land use), as shown in Table 4.13-5, but for infrequent events such as freight train activity (i.e., less than 30 trains passing by in one day), the criteria generally vary between 65 Vdb for buildings where vibration would interfere with interior operations (e.g., highly sensitive research facilities, hospitals), to 80 VdB for residences and buildings where people normally sleep, to 83 VdB for land uses with primarily daytime use. Highly sensitive research facilities and hospitals are not anticipated under the proposed GPU and, therefore, the 65 VdB threshold is not considered further in this analysis. The FTA's guidance document contains generalized ground surface vibration curves derived from vibration measurements of transit systems in North America (FTA 2018, Figure 6-4). Based on these vibration prediction curves, proposed residential development within approximately 80 feet of a freight rail line could be exposed to vibration levels that exceed the FTA's recommended threshold of 80 VdB for residences. Similarly, other proposed land uses within approximately 60 feet of a freight rail line could be exposed to vibration levels that exceed the FTA's recommended threshold of 83 VdB for land uses with primarily daytime occupancy. The Union Pacific right-of-way extends approximately 65 feet from the center of the railroad track. Therefore, future planned mixed-use development at the intersection of Lambert Road and 1st Ave (residential and non-residential) could be exposed to excessive freight train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 80 or 83 VdB, respectively. The proposed GPU contains no policies to address potential excessive vibration levels from freight train operations. This is considered a potentially significant impact requiring mitigation.

Typical construction activities may be barely to distinctly perceptible when occurring within approximately 150 feet of sensitive land uses. Most construction equipment does not operate in the same location for prolonged periods of time. Therefore, even if construction equipment were to operate near a building where receptors may feel vibration, it would only be for a temporary amount of time and would not be considered excessive. This impact is considered less than significant.

Future planned mixed-use development at the intersection of Lambert Road and 1st Ave (residential and non-residential) could be exposed to excessive freight train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 80 or 83 VdB, respectively. This is considered a potentially significant impact requiring mitigation.

Implementation of Mitigation Measure NOI-1 ensure that future development is not exposed to excessive ground-borne vibration from freight train operations.

Level of Significance Before Mitigation

Potentially Significant.

Mitigation Measures

NOI-1 The City shall require new residential and commercial projects located within 200 feet of the Union Pacific railroad track to conduct a freight train ground vibration and vibration noise evaluation consistent with approved vibration assessment methodologies (e.g. Caltrans, Federal Transportation Authority).

Level of Significance After Mitigation

Mitigation Measure NOI-1 would require projects near the Union Pacific rail corridor to assess and minimize freight train vibration impacts such that disturbance to building occupants would not occur. Therefore, this impact would be **less than significant with mitigation**.

Excessive Airport-related Noise Levels

Impact NOISE-4 – For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the GPU expose people residing or working in the area to excessive noise levels?

Analysis of Impacts

The closest airport to the Planning Area is the Fullerton Municipal Airport, located approximately 3.7 miles south of the City. The City is not located in any noise contour zone associated with this airport.

Noise from overhead flights was observed during the ambient noise monitoring conducted for the GPU, and flights from LAX are known to fly over the City. LAX is located approximately 20 miles west of the City (as measured from the geographic center of the City). As described in Chapter 3, Project Description (see Table 3-1), the proposed GPU is estimated to increase single- and multi-family dwelling units in the Planning Area, leading to approximately 20,190 new residents in the City. The residents would be exposed to noise from overhead flights. The City's General Plan establishes the City's overall goal and intent to protect noise sensitive uses and allow residents to enjoy quiet neighborhoods and outdoor activities. The implementation of GPU policies would ensure potential airport and heliport noise would not be excessive within the Planning Area.

There are no private airstrips located in the Planning Area. The GPU is not located within the vicinity of a private air strip or an airport land use plan and would not expose people residing or working in the Planning Area to excessive airport-related noise levels.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact NOISE-5– Would the GPU cause substantial adverse cumulative impacts with respect to noise or vibration?

Analysis of Impacts

GPU implementation would result in construction noise and vibration as individual development projects are constructed over time. Each individual development would be subject to City regulations and policies regarding construction noise and vibration (See Impact NOISE-1 and

NOISE-3). These policies and measures establish the overall goal and intent of the City to protect residents from excessive construction noise and vibration, to require the appropriate evaluation of construction noise and vibration impacts at sensitive receptor locations, and to implement feasible construction noise and vibration control measures when development occurs near noise-sensitive land uses. Therefore, construction noise would not make a cumulatively considerable contribution to a significant cumulative construction noise impact.

Once constructed, development projects would contribute to the potential permanent increases in noise levels evaluated under Impact NOISE-2. The proposed GPU would not generate significant increases in traffic noise levels on a cumulative basis. The GPU sets forth the City's intent to establish clear and enforced noise regulations for all land uses, to consider operational noise impacts during the development review process, and to limit new development in noise impacted areas unless the development includes mitigation measures to reduce noise levels to acceptable levels. In addition, proposed GPU policies would protect residents from excessive stationary noise sources and ensure new land uses meet the Whittier Municipal Code noise standards through evaluation and design considerations. Therefore, future operations would not make a cumulatively considerable contribution to a significant cumulative operational noise impact.

The proposed GPU could facilitate the construction of mixed-use projects at the intersection of Lambert Road and 1st Ave, adjacent to the existing Union Pacific railroad corridors along Lambert Road. This potential future planned mixed-use development at the intersection of Lambert Road and 1st Ave (residential and non-residential) could be exposed to excessive freight train vibration levels that exceed FTA-recommended vibration criteria (for human annoyance and response factors) of 80 or 83 VdB, respectively. Mitigation Measure NOISE-3 would require projects near the Union Pacific rail corridor to assess and minimize freight train vibration impacts such that disturbance to building occupants would not occur. Therefore, this impact would be less than significant with mitigation. In general, ground-borne operational vibration impacts are site-specific and do not have the potential combine with vibration impacts. No cumulative impact would occur.

Level of Significance Before Mitigation

The proposed GPU would not result in a cumulative considerable contribution to cumulative noise and vibration impacts.

Mitigation Measures

None required.

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List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	Full Phrase or Description
CalEEMod	California Emission Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
D	Distance
dB	Decibel (unweighted)
dBA	Decibels, A-Weighted
DNL / L _{dn}	Day-Night Noise Level
FHWA	Federal Highway Works Administration
FTA	Federal Transit Administration
HUD	U.S. Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
Hz	Hertz
In/sec	Inches per Second
kH	Kilohertz
L _{eq}	Average / Equivalent Noise Level
L _{max}	Maximum Noise Level
L _{min}	Minimum Noise Level
LT	Long-term
MTC	Metropolitan Transportation Commission
OITC	Outside-Indoor Transmission Class
OPR	Office of Planning and Research
Pa	Pascals
PRC	Public Resources Code
PPV	Peak Particle Velocity (inches/second)
SR	State Route
ST	Short-term

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	Full Phrase or Description
STC	Sound Transmission Class
TIA	Transportation Impact Analysis
TNM	Traffic Noise Model
UF	Usage Factor
VdB	Velocity Decibels
VMT	Vehicle Miles Travelled
§	Section
%	Percent

4.14 – Population, Housing, and Employment

This EIR chapter addresses population and housing impacts associated with the proposed General Plan Update (GPU), and whether it will induce substantial unplanned population growth or displace substantial numbers of existing people or housing.

4.14.1 – ENVIRONMENTAL SETTING

The Planning Area includes a mix of residential, commercial, industrial, institutional, and open space uses. The Planning Area encompasses approximately 12,500 acres, or 19.5 square miles, nearly all of which are developed with urban land uses (Whittier, 2017). A description of population, housing, and employment characteristics within the Planning Area is provided below.

Population

The California Department of Finance estimates that the January 2020 population for Los Angeles County and the City of Whittier was 10,172,951 and 86,801 residents, respectively (DOF, 2020a). The Southern California Association of Governments (SCAG) develops socioeconomic estimates and growth projections including population, households, and employment. These estimates and projections provide the analytical foundation for SCAG's transportation planning and other programs. The growth forecast used for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS) (Southern California Association of Governments, 2020) for Los Angeles County and the City of Whittier are included in Table 4.14-1 (Population Forecasts Included in the 2020-2045 RTP/SCS). As shown in Table 4.14-1, continued population growth is anticipated at both the county and city level, although the projected growth rate for the City is slightly lower. Population growth at the County level from 2020 to 2045 is projected to be approximately 15.5 percent, while during the same period it is approximately 13.5 percent for the City of Whittier.

**Table 4.14-1:
Population Forecasts Included in the 2020-2045 RTP/SCS**

	2020	2045	Change
County of Los Angeles	10,110,000	11,674,000	+15.5%
City of Whittier	87,100	98,900	+13.5%
Source: 2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction, SCAG.			

Housing

As of 2017, the City of Whittier estimated that it had a total of 28,670 housing units within the Planning Area (Whittier, 2017). According to the California Department of Finance, as of April 2020 there were approximately 3,443,087 housing units within Los Angeles County and approximately 29,591 housing units within the City of Whittier (DOF, 2020b). As noted above, SCAG develops socioeconomic estimates and growth projections including population, households, and employment. Table 4.14-2 (Household Forecasts Included in the 2020-2045 RTP/SCS) shows the anticipated growth in households for both Los Angeles County and the City of Whittier. As shown in Table 4.14-2, the City of Whittier is anticipated to have an increase in housing units of approximately 13.2 percent between 2020 and 2045, while it is anticipated that the County of Los Angeles will have an increase in housing units of approximately 24.1 percent.

**Table 4.14-2:
Household Forecasts Included in the 2020-2045 RTP/SCS**

	2020	2045	Change
County of Los Angeles	3,319,000	4,119,000	+24.1%
City of Whittier	29,600	33,500	+13.2%

Source: 2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction, SCAG.

Employment

According to Southern California Association of Governments (SCAG), Whittier had an employment base of 35,900 in 2016, and is anticipated to increase its employment base to 38,900 by 2045 or an increase of approximately 8.4% (SCAG, 2020).

City General Plan Forecasts

During preparation of the GPU, the City has developed its own baseline for existing (2019) and projected future (2040) figures for population, housing, and employment, as summarized in Table 14-3 (City General Plan Forecasts). The City estimates the population and housing of the City will grow by 21 and 23 percent, respectively, from 2019 to 2040, while it is estimated the population and housing of the SOI will grow by only 3 to 4 percent over the same time period. Jobs in the City are expected to increase by only 2 percent from 2019 to 2040, while jobs in the Sphere of Influence are anticipated to increase by 13 percent during that time.

**Table 14-3:
City General Plan Forecasts (2019-2040)**

Baseline/Forecast	City	Sphere of Influence	Planning Area
Population			
Existing (2019)	87,583	53,518	141,102
Forecast (2040)	106,014	55,278	161,291
Difference (%)	+21	+3	+14
Housing			
Existing (2019)	29,668	16,487	46,155
Forecast (2040)	36,487	17,162	53,649
Difference (%)	+23	+4	+16
Employment			
Existing (2019)	26,133	7,631	33,764
Forecast (2040)	26,525	8,635	35,160
Difference (%)	+2	+13	+4

Source: Table 3-1, Section 3.0 Project Description

NOP Comments

A letter from the **Southern California Association of Governments (SCAG)** was received on June 1, 2021 that provided demographic (housing, population, and employment) information about the City relative to the Southern California region that should be included in the General Plan EIR. It also encouraged the General Plan EIR to evaluate consistency with SCAG's regional planning documents, including the Regional Transportation Plan (RTP) and the Sustainable Communities Strategy (SCS). The following incorporates the appropriate information from SCAG into the EIR.

A letter from the **Attorney Office of Mitchell M. Tsai representing the Southwest Regional Council of Carpenters** was received on June 1, 2021 that provided historical information about the carpenters union and several issues that should be addressed in the General Plan EIR. One issue was the provision of affordable housing for its members, while another was to consider requiring local hiring and using of a skilled and trained workforce as “community benefits” for building projects. However, it must be remembered this is a programmatic document and does not address any one particular development project but rather general growth and development into the future. It would be more appropriate to possibly consider this “project level” issue on future development projects. As outlined in CEQA, detailed assessments of these types of impacts can be evaluated at that time.

In addition, a number of residents expressed concerns about the City increases housing densities, especially in their neighborhoods.

Two residents with Homes for Whittier spoke at the EIR Scoping Meeting and said that housing is their number one priority and they want more affordable housing at all levels, with reduced/streamlined government (city) regulations to expedite new housing and for the City to find ways to reduce cost and time for homebuyers.

4.14.2 – REGULATORY FRAMEWORK

Federal

U.S. Department of Housing and Urban Development (HUD)

HUD oversees the Federal Housing Administration (FHA), the largest mortgage insurer in the world, as well as regulates housing industry business and provides project-based rental assistance and other rental assistance programs, which provide support for low and very low-income households.

State

California Department of Housing and Community Development (HCD)

HCD enforces standards for housing construction, maintenance of farmworker housing, and pre-manufactured/factory-built homes. HCD also proposes amendments to California's residential building standards for new construction to the California Building Standards Commission and helps train local government to better understand new requirements. HCD works with regional governments to determine their housing needs and reviews every city and county's Housing Element of the General Plan to determine compliance with State law.

Housing Element Law (California Government Code Article 10.6)

The State has established detailed legal requirements for the General Plan Update (GPU) Housing Element beyond Section 65300. State Law requires each city and county to prepare and maintain a current Housing Element as part of the community's GPU to attain a statewide goal of providing "decent housing and a suitable living environment for every California family." Under State law, a Housing Element must be updated every eight years for each jurisdiction in the SCAG Region and reviewed by the California Department of Housing and Community Development (HCD).

California Department of Finance Demographic Research Unit

The Demographic Research Unit uses population data to establish appropriation limitations; distribute various federal program funds and aid in the planning and evaluation of programs.

4.14 – Population and Housing

State agencies and departments, local governments, the federal government, school districts, public utilities, the private sector, and the public use the data. Staff provide demographic research and analysis, produce current population estimates, and future projections of population and school enrollment, and disseminate U.S. Census data.

Regional

Los Angeles County Housing Authority (LACHA)

The LACHA is a public agency chartered by the State to administer the development, rehabilitation or financing of affordable housing programs. The LACHA works with the City to administer the Housing Choice Vouchers Program; support the County Housing Authority's applications for additional allocations; and assist the County Housing Authority in marketing the program to home seekers and property owners.

Southern California Association of Governments (SCAG). Southern California Association of Governments (SCAG) is a joint powers authority, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under State law as a Regional Transportation Planning Agency and a Council of Governments.

Regional Housing Needs Assessment (RHNA)

RHNA is developed through a process directed by SCAG. The RHNA represents the number of housing units divided into various household income categories—that have been calculated to represent Whittier's fair share of the regional housing need during the Housing Element planning period. By law, the City is required to show in the Housing Element that adequate sites are available to accommodate construction of new housing units consistent with the RHNA.

Local

City of Whittier General Plan

The Land Use Element of the current 1993 General Plan contains the following goals and policies related to population, housing, and employment growth:

Goal 1: Establish an orderly, functional, and compatible pattern of land uses to guide the future growth and development of Whittier and its sphere of influence, in order to provide a high quality of life for the people.

Policy 1.2: Encourage development in the City that is compatible with surrounding uses, provides for civic improvements, increases the potential for future investment, and fulfills the need for high quality residential areas and shopping and employment centers.

Policy 1.4: Establish guidelines for land use compatibility in all city ordinances and regulations.

Policy 1.5: Infill development must be sensitive to adjacent land uses to promote compatibility between the new development and existing uses.

Goal 2: Develop and maintain cohesive, clean, safe, and stable residential neighborhoods in Whittier.

Policy 2.2: Continue to develop and implement, where appropriate, programs to promote the preservation and rehabilitation of existing housing units.

Policy 2.5: Promote the development of quality housing at a variety of densities, with consideration for the environment, aesthetics, and the need for maintaining and expanding the infrastructure's capacity.

Policy 2.6: Encourage the assemblage of lots to promote the efficient use of land in areas where multiple family housing is permitted, to facilitate the development of high quality housing.

Policy 2.7: Consider the capacity of existing infrastructure and the potential demand for public services in future planning and review of new development.

Goal 3: Promote the development and maintenance of retail and service facilities which are convenient to residents of Whittier, provide the widest possible selection of goods and services, and supplement the City's tax base.

Policy 3.2: Encourage the grouping of commercial activities to facilitate access and provide beneficial concentrations of businesses.

Policy 3.7: Require high quality design in new commercial development including the use of buffer zones (such as parks, landscaped areas, walls, and high density residential development) between commercial and single-family developments. Encourage the landscaping of blank walls to improve their appearance and to discourage vandalism.

Goal 4: Encourage the maintenance and continued improvement of industrial areas which support and enhance the physical and economic well-being of Whittier.

Policy 4.2: Improve the City's industrial and employment base to meet the needs of Whittier.

Goal 7: Promote mixed-use development in those areas of the City, so designated, to provide additional housing and to assist in the revitalization of commercial districts.

Policy 7.1: Encourage housing development within commercial uses in the designated Urban Design Districts where lots are underutilized or contain deteriorating commercial and industrial developments.

Policy 7.2: Encourage the development of "mixed-use" projects that include commercial and residential uses in areas with excess retail space, including areas along South Greenleaf, Penn Street, Philadelphia Street, Hadley Street, and Whittier Boulevard and ensure that the design and signage is sensitive to surrounding uses.

The Housing Element of the current General Plan contains the following goals and policies related to population, housing, and employment growth:

Goal 1: Maintain a supply of housing, within the City of Whittier, which is free from the adverse problems of structural neglect and deterioration, and promote neighborhood environments which provide an excellent quality of life for all residents.

Policy 1.1: Actively engage in identifying substandard and deteriorating housing in Whittier and take appropriate actions to ensure correction of these deficiencies, such as initiating rehabilitation, maintenance, or replacement programs.

Policy 1.2: Protect viable housing and the continued maintenance and stabilization of healthy neighborhoods.

Policy 1.3: Encourage and/or stimulate conservation of existing residential areas and, where possible, minimize or prevent the intrusion of incompatible uses into the neighborhoods.

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Policy 1.4: Work to rehabilitate and, if required, replace substandard dwelling units.

Policy 1.5: Promote rehabilitation which maximizes the utility of the existing housing stock.

Policy 1.6: Encourage a full range of public improvements and services to provide for the needs of all residential neighborhoods.

Policy 1.7: Maintain amenities (landscaping, trees, urban design, parks, etc.) which provide beauty, identity, and form to the City and the residential neighborhoods within the community.

Policy 1.11: Work with state and local agencies for the preservation of existing low-income housing developments.

Goal 2: The City will work to provide opportunities for new housing units to meet the housing needs of all economic segments of the City of Whittier.

Policy 2.1: Encourage the development of housing to meet the City of Whittier's responsibilities for the regional housing needs.

Policy 2.2: Encourage and increase the variety and supply of housing available at costs affordable to the various income levels of the population.

Policy 2.3: Encourage a variety of housing arrangements and densities, each appropriately located with reference to topography, traffic circulation, community facilities, and aesthetic considerations.

Policy 2.4: Encourage a balance of housing in a variety of types which provides a range of housing affordable to households at all economic levels. The balance of housing promoted would include townhouses, cluster developments, condominiums, apartments, single-family dwellings, manufactured homes, and second units.

Policy 2.5: Promote development density in the City and planning area that is consistent with environmentally sound development and does not disrupt the fragile natural topography.

Policy 2.6: Encourage continued and new investment in the established communities of Whittier.

Policy 2.7: Encourage and promote, where the land use plan permits higher density, the assemblage and consolidation of small parcels to promote a more efficient use of space, while allowing for aesthetic amenities and greater use of open space.

Policy 2.8: Encourage the consolidation of multiple land ownership by private or public means into single ownership. This will facilitate the use of contemporary planning techniques in providing multiple-family residences with greater amenities and will enhance the quality of life for the citizens of Whittier.

Policy 2.9: Examine the feasibility of under-utilized commercial and industrial sites which may be suitable for rezoning to residential uses.

Policy 2.11: Use density and open space bonuses to encourage the assemblage of large parcels for higher density developments.

Goal 3: Work to maintain a balanced housing stock with a range of housing available to all economic segments of Whittier and make an effort to meet the housing assistance needs of Whittier residents to the maximum extent possible.

Policy 3.1: Work toward the provision of the City of Whittier’s fair share of regional housing needs assessment, as identified in the Regional Housing Needs Assessment (RHNA), prepared by the Southern California Association of Governments (SCAG).

Policy 3.2: Encourage housing which is affordable to the various income levels of the population.

4.14.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to population and housing if it would:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.14.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to population growth, housing displacement, and physical displacement of the site, which could result from the implementation of the GPU and , if necessary, includes mitigation measures as needed to reduce significant impacts.

Population Growth

Impact POP-1 – Would the GPU induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Analysis of Impacts

The 2021 GPU will change land uses in the City over time by substantially increasing the amount of residential uses and housing units over those projected in the 1993 General Plan. Conversely, the GPU represents substantially less growth in non-residential uses (e.g., commercial, office, light industrial) and employment in the future compared to that projected in the 1993 General Plan. These changes in anticipated growth are a result of the City’s increased Regional Housing Needs Assessment (RHNA) housing allocation from SCAG, which is based on the state’s desire¹ to encourage more housing throughout the state. The GPU will change land uses, housing, and growth projections for the City consistent with SCAG’s RHNA directives.

¹ At a press conference on September 19, 2020, the Governor stated that over the past decade, California has averaged less than 100,000 new homes per year, significantly slower than that of most other states. Gov. Newsom then set a goal of 3.5 million new housing units to be built by 2025 or about 500,000 units per year. He outlined a suite of proposals he hoped would make it easier for builders to build such as altering the state’s oft-abused environmental-impact law (CEQA) to allow more housing, revamping how local governments get their tax dollars and clamping down on cities that obstruct new construction [Sacramento Bee, September 20, 2020].

4.14 – Population and Housing

The 2020-2045 RTP/SCS was based on the land uses and growth projections of the current General Plan. The current General Plan growth projections were prepared in 1993 and have become outdated as local and regional conditions have changed considerably in the intervening 28 years. Once the City has adopted the GPU, it will transmit its new growth numbers to SCAG and those estimates will be incorporated into the next revisions to the RHNA and RTP. Any further action by the City will not resolve the regional impact of conflicting RHNA and RTP goals and is infeasible because only SCAG can resolve this policy and program conflict.

The City cannot feasibly resolve this inconsistency in adopted plans at this time, but it can accommodate this future growth at the local level with adherence to the goals and policies of the existing General Plan Land Use and Housing Elements. Therefore, potential population, housing, and employment changes from future development under the GPU are considered to be less than significant impacts and no mitigation is required.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Housing Displacement

Impact POP-2 – Would the GPU displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Analysis of Impacts

As discussed in Impact POP-1 above, the 2021 GPU will substantially increase the number of housing units and the population projected in the City over those projected in the 1993 General Plan. This change in anticipated growth is a result of the City's increased RHNA housing allocation from SCAG, which is in turn based on the State's desire to encourage more housing throughout the state.

Future development under the GPU may result in some older housing being eliminated and new housing being constructed on those sites. However, it is overly speculative at this time in this programmatic document to try to estimate the specific amount of existing housing that might be removed in the future as a result of the GPU. Future project-level analyses would identify any actual existing housing that was being eliminated by the proposed development and any necessary steps would be taken at that time consistent with General Plan goals and policies.

Future development under the GPU will introduce an estimated 6,819 additional residential units within the City and 675 units within the SOI by 2040 over the existing housing stock. This amount of additional housing will provide a variety of opportunities for existing residents to find new housing within the City or SOI if they so desire.

The GPU will change land uses, housing, and growth projections for the City. While these changes are consistent with SCAG's RHNA directives, they conflict with SCAG's RTP/SCS projections that are based on the 1993 City General Plan land uses. The goals and policies of the existing General Plan Land Use and Housing Elements will help ensure that future development within the Planning Area under the GPU will not result in the displacement of substantial numbers of existing people or housing.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact POP-3 – Would the GPU cause substantial adverse cumulative impacts with respect to population and housing?

Analysis of Impacts

As discussed in **Impact POP-1 and Impact POP-2** above, the 2021 GPU will substantially increase the number of housing units and the population projected in the City over those projected in the 1993 General Plan. This change in anticipated growth is a result of the City's increased RHNA housing allocation from SCAG, which is in turn based on the state's desire to encourage more housing throughout the state. However, the state housing goal conflicts with its desire to reduce vehicle miles traveled (VMT) in an effort to reduce vehicular air pollution and greenhouse gas emissions.

The Housing Element of the existing General Plan and proposed GPU both contain a number of goals and policies to accommodate anticipated population and housing growth and prevent displacement of residents while providing more housing opportunities in the future. The surrounding jurisdictions in the region have similar goals and policies to be consistent with state planning and housing laws.

While the proposed GPU has cumulative implications for SCAG's regional plans, the City itself cannot solve the inherent conflict between the goals and directives of the RHNA and the RTP as well as the RTP growth projections. Once the City has adopted the GPU, it will transmit its new growth numbers to SCAG and those estimates will be incorporated into the next revisions to the RHNA and RTP. Any further action by the City will not resolve the regional impact of conflicting RHNA and RTP goals and is infeasible because only SCAG can resolve this policy and program conflict. The GPU will change land uses that will induce substantial housing and population growth within the Planning Area. However, this level of growth can be accommodated at the local level by the City of Whittier so the GPU does not represent a substantial adverse cumulative impacts with respect to population and housing.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.14.5 REFERENCES

California Department of Finance. DOF 2020a. *New Demographic Report Shows California Nearing 40 Million Mark with Growth of 309,000 in 2017*. Web: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-1/documents/E-1_2020PressRelease.pdf. [Accessed July 2020].

4.14 – Population and Housing

California Department of Finance. DOF 2020b. *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2011-2018, with 2010 Benchmark, April*. Web: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>. [Accessed July 2020].

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

Southern California Association of Governments. *The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*. September 3, 2020.

Southern California Association of Governments, 2020. *2020-2045 RTP/SCS Final Growth Forecast by Jurisdiction*. Table 14, Jurisdiction-Level Growth Forecasts, Demographics and Growth Forecast Technical Study. September 3, 2020.

Southern California Association of Governments, 2012. *5th Cycle Regional Housing Needs Assessment Final Allocation Plan, 1/1/2014 – 10/1/2021*, August 29. Web: <http://www.scaq.ca.gov/Documents/5thCyclePFinalRHNAplan.pdf>. [Accessed July 2020].

4.15 – Public Services

This EIR chapter addresses public services impacts associated with the proposed General Plan Update (GPU). Issues of interest are public services impacts identified by the CEQA Guidelines: whether the GPU will result in substantial adverse physical impacts associated with the provision of public services and public service facilities which could cause significant environmental impacts.

4.15.1 – ENVIRONMENTAL SETTING

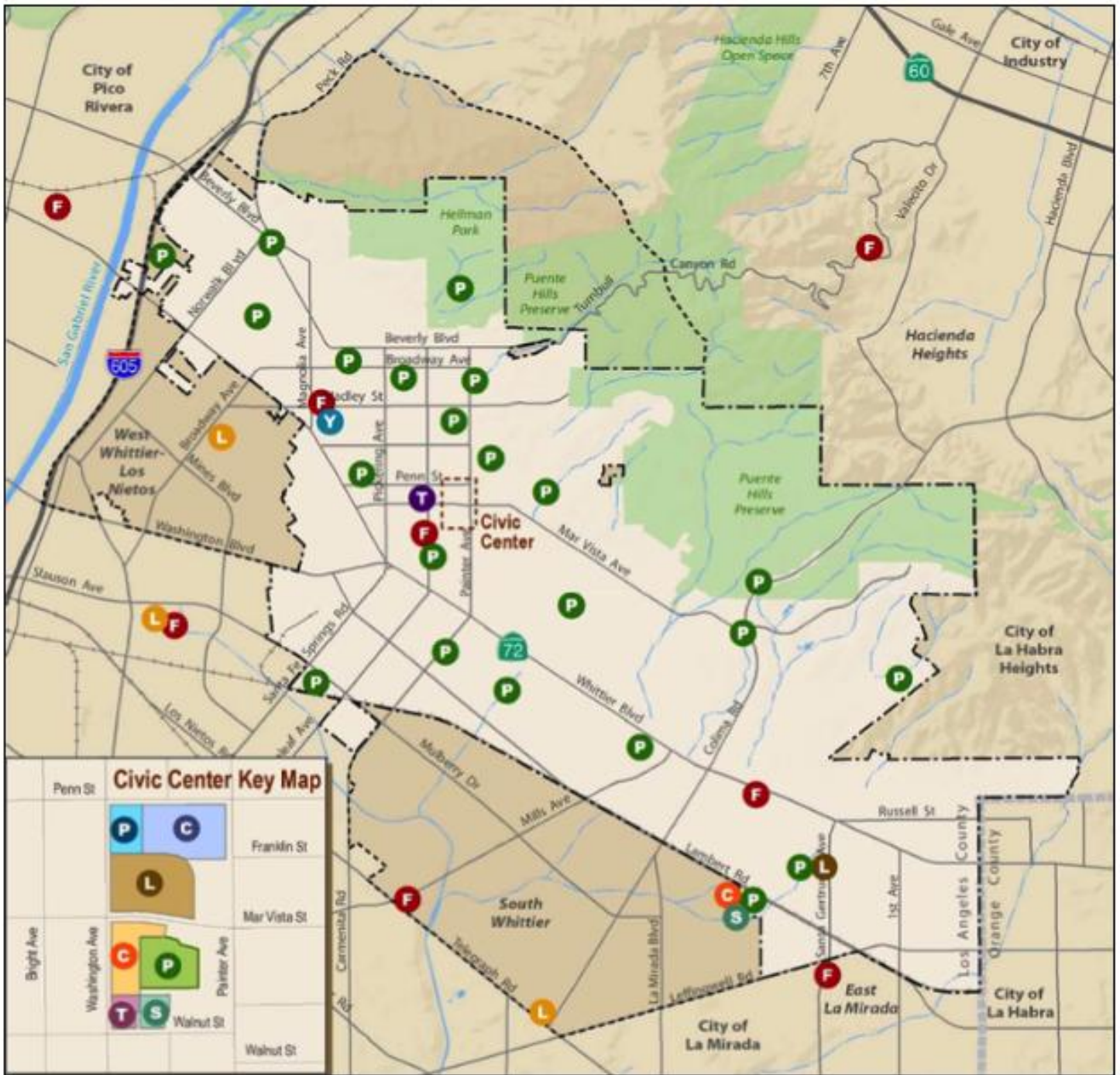
City-provided public services and facilities contribute to the high quality of life enjoyed by residents of Whittier. Exhibit 4.15-1 (Community Facilities) of the *Envision Whittier Existing Conditions Atlas* shows the community facilities within the Planning Area. As the City continues its efforts to further enhance Whittier's livability, the City is moving to invest nearly \$16 million in bond funds for the Uptown business district and Whittier Boulevard infrastructure improvements (Whittier,2017).

Fire Protection

The City contracts with the Los Angeles County Fire Department (LACFD) for Emergency Medical Services (EMS), fire and rescue services, and safe haven services. The LACFD operates four fire stations within the Planning Area. A fifth fire station designated by LACFD as a Whittier fire station lies just outside the Planning Area in East La Mirada. Nearby LACFD fire stations in Pico Rivera also provide fire protection services to Whittier neighborhoods, with emergency response available by Santa Fe Springs Fire Department (Whittier, 2017). Exhibit 4.15-2 (Fire Stations) shows the locations of the stations that serve the Planning Area as well as their service area distances. LA County Fire Station #15 is located at 11460 Santa Gertrudes Avenue just outside the southeastern portion of the Planning Area in East La Mirada. Station #15 is staffed with a four-person quint consisting of one fire captain, one fire fighter specialist (engineer), and two fire fighters.

LA County Fire Station #17 is located 12006 Hadley Street just northwest of Uptown. Station #17 is staffed daily with a four-person engine company consisting of one fire captain, one fire fighter specialist (engineer), and two fire fighters (Centeno, pers. Comm. 2020). LA County Fire Station #28 is located at 7733 Greenleaf Avenue in the southern part of Uptown. Station #28 is staffed daily with an engine company, quint, squad, and battalion, consisting of two fire captains, two fire fighter specialists (engineers), two fire fighters, and three paramedics. LA County Fire Station #59 is located at 10021 Scott Avenue in the southeastern portion of the Planning Area. Station #59 has a four-person engine company staffed with one fire captain, one fire fighter specialist (engineer/paramedic), and two fire fighters, and an unmanned patrol consisting of one captain and one fire fighter specialist (engineer). The unmanned patrol is tasked with responding to brushfires in the hillsides. LA County Fire Station #96 is located at 10630 Mills Avenue in the southern portion of the Planning Area. Station #96 is staffed with a three-person engine company consisting of one fire captain, one fire fighter specialist (engineer), and one fire fighter. Based on communication with staff at each of station, average response times range from three to six minutes depending on time of day and distance from a given fire station to the location of emergency calls within the Planning Area.

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Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

City of Whittier

- C City Hall
- P Whittier Police Department
- C Community Center
- P Whittier Parks
- T Community Theater
- S Senior Center
- L Whittier Library
- Y Corporate Yard
- T Transportation Depot

Los Angeles County

- F Los Angeles County Fire Station
- L Los Angeles County Library



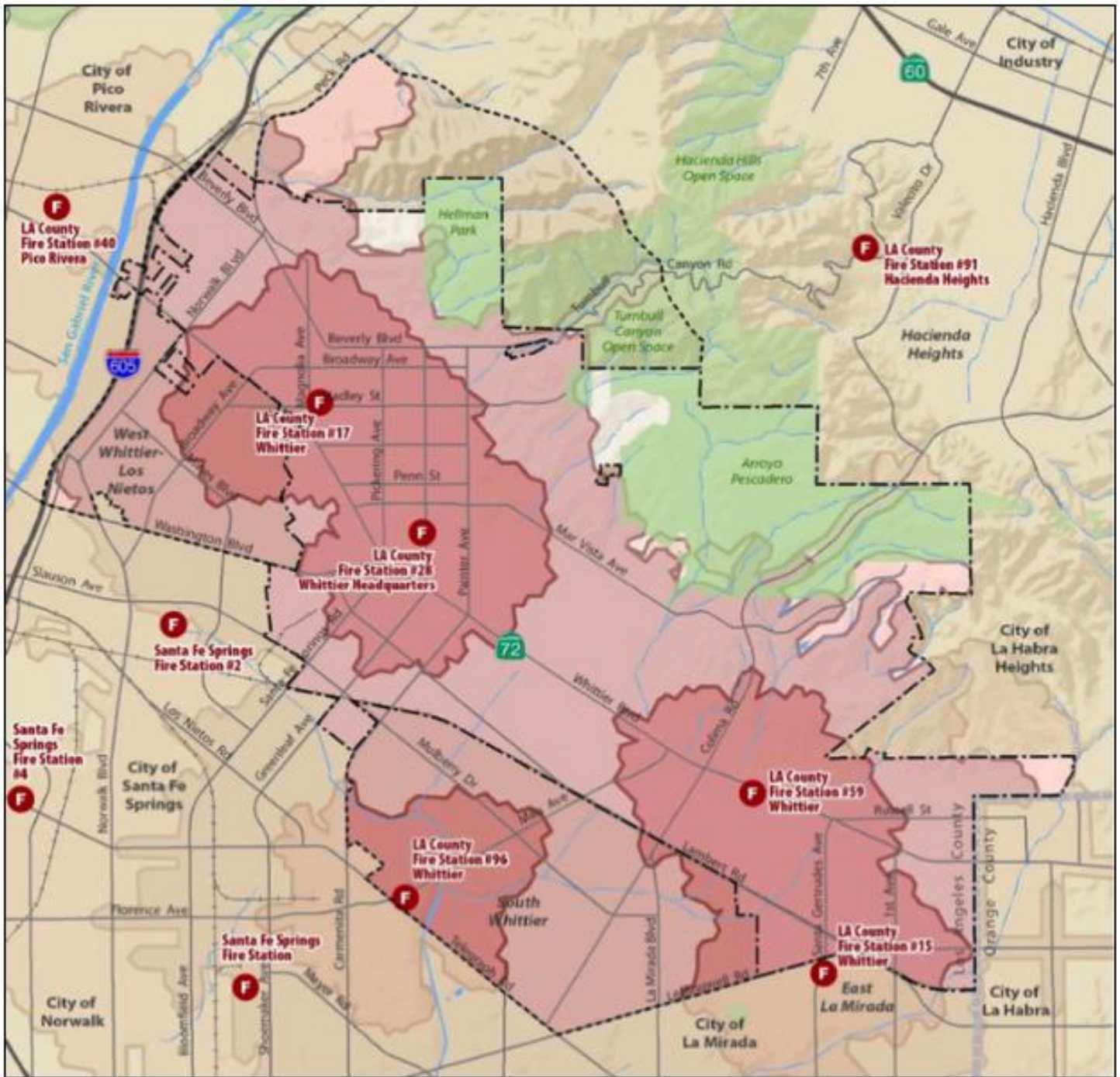
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Exhibit 4.15-1 Community Facilities

Whittier General Plan Update
Whittier, California

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Los Angeles County Fire Stations

F Fire Stations

Service Areas

- One-Mile Service Area Distance
- Two-Mile Service Area Distance
- Three-Mile Service Area Distance

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas



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Exhibit 4.15-2 Fire Stations
Whittier General Plan Update
 Whittier, California

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Police Protection

Law enforcement services in the Planning Area are provided by the City of Whittier Police Department (WPD), which operates out of its headquarters adjacent to City Hall at 13200 Penn Street. This state-of-the-art police station opened in 2010. WPD also serves residents and adjacent Santa Fe Springs. WPD has 121 sworn officers and 54 civilian staff. Given an overall population of 105,981 in Whittier and Santa Fe Springs in 2017 it was estimated in the *Envision Whittier Existing Conditions Atlas* that approximately 1.7 law enforcement employees (officers and civilians) per 1,000 residents are provided. This was estimated to be 52.8 percent less than the California average of 3.6 officers per 1,000 residents and 48.5 percent less than the national average of 3.3 officers per 1,000 residents. The WPD is organized into four divisions: Patrol, Investigations, Support Services, and Administrative. The Patrol Division with 70 officers assigned to patrol city streets, is the largest detail in the Department. Although the Whittier Police department operates out of a single central headquarters located in the Civic Center, teams of officers are assigned to operate in four distinct areas of the Planning Area. Under this geographic policing structure, officers can develop distinct familiarity with the community safety issues in the areas to which they are assigned. Each of the geographic areas receives “24/7” service, with at least one member of every geographical team always working in that area (Whittier, 2017). The Department’s general fund budget for fiscal year (FY) 2019/2020 is \$17,940,040. There are 175 budgeted full-time employees of the Police Department, of which 120 are sworn officers (1 Chief, 2 Captains, 6 Lieutenants, 13 Sergeants, and 98 Police Officers). At the time of this writing, the department does not have plans to expand facilities, staff, or equipment. Staff increases may occur to fill vacancies. In the Planning Area, the average response time for Priority One Calls is 5 minutes and 12 seconds. Priority One calls include robbery, assault with a deadly weapon, traffic collisions with injuries, etc. The average response time for all other calls is 24 minutes and 13 seconds (Lo/Ruiz, 2020).

Schools

The Planning Area is served by two high school (grades 9-12) districts and five elementary/middle school (grades K-8) districts. These seven districts operate a total of 48 schools with over 36,000 enrolled students although their boundaries are not coterminous with those of the Planning Area. Only 33 of the schools are located within the Planning Area. The other 15 schools are located outside the Planning Area but still provide services to residents from neighborhoods within the Planning Area. One out of every five residents in the Planning Area is within the ages of 5 through 17 which results in a school-age population of approximately 30,000 children (Whittier, 2017). Table 4.15-1 (Student Enrollment by School District) shows number of students per district in the Planning Area who were enrolled in each district in 2015-2016. Exhibit 4.15-3 (Districts and Schools) shows the school district boundaries and locations of schools within the Planning Area.

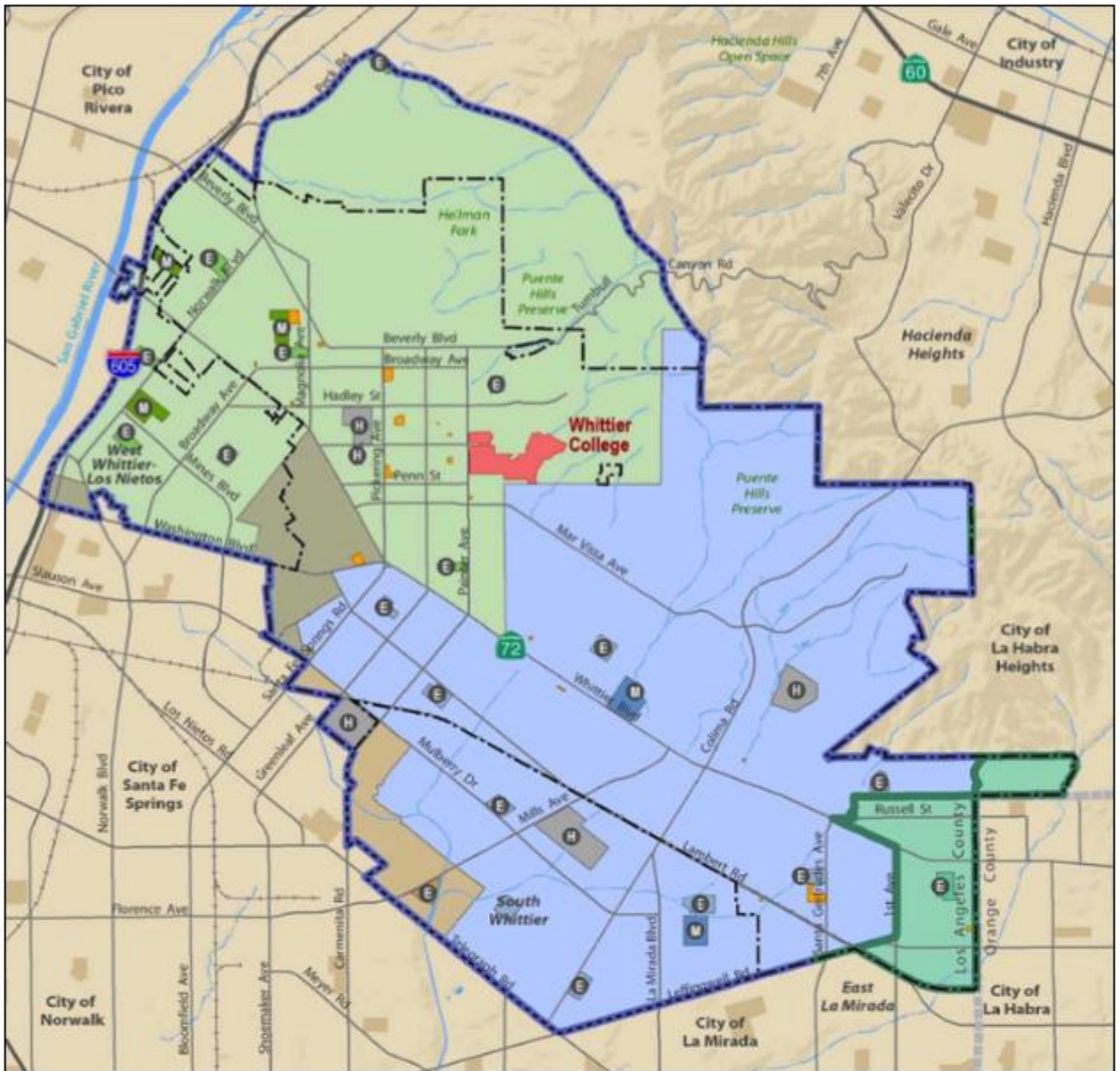
**Table 4.15-1
Student Enrollment by School District**

School District	No. of Schools Within the Planning Area	No. of Schools Outside the Planning Area Serving the Planning Area	Enrollment (2015-2016)
Elementary & Middle School Districts Serving Planning Area Residents			
East Whittier City School District	13	0	8,830
Los Nietos School District	0	4	2,100
Lowell Joint School District	3	3	3,159
South Whittier School District	1	6	3,094
Whittier City School District	11	0	6,300
Subtotal	28	13	23,483
High School District Serving Planning Area Residents			
Whittier Union High School District	5	1	12,456
Fullerton Union High School District	0	1	2,110
Subtotal	5	2	12,456
Total	33	15	38,409
Total (excluding Fullerton Union High School District)			35,939
Source: <i>Envision Whittier Existing Conditions Atlas</i> , 2017.			
Note: Enrollment includes both Whittier and non-Whittier residents. Enrollment at Fullerton Union High School includes some students from Whittier.			

The Whittier Union High School District has an enrollment of nearly 12,500 students - the district encompasses most of the Planning Area and five of its six high schools are located within the Planning Area. The Fullerton High School District serves a small portion of the southeastern Planning Area with a high school located in Fullerton (Fullerton Union High School). With an enrollment of 8,830 students in 13 schools, the East Whittier School District is the largest elementary/middle school district serving Whittier. The second largest elementary/middle school district, the Whittier City School District, operates eight elementary schools, two middle schools, and one K-8 school (Whittier, 2017).

The remaining three of the five elementary school districts serving the Planning Area are smaller in terms of enrollment and number of school facilities. Many of these school are located in nearby jurisdictions. Open enrollment allows residents in the Planning Area to attend any school operated by these districts even if it is located outside the Planning Area. In addition to the numerous public schools, 25 private schools in the Planning Area served 4,095 students as of 2017. Over 75% of these private schools are religiously affiliated, primarily Christian and Catholic (Whittier, 2017).

Whittier College, a private four-year liberal arts college with an undergraduate enrollment of 1,650 students, is located nearby the Uptown area. Half of the students live on campus and the other half live off campus in private housing around the college. Whittier College recently completed a major campus center, athletic facilities renovation, and the Science and Learning Center renovation. Whittier Law School, located in Costa Mesa, announced in 2017 that it would be closing and would no longer accept new student enrollments (Whittier, 2017).



School District Boundaries

Elementary School Districts

- East Whittier Elementary
- Los Nietos Elementary
- South Whittier Elementary
- Whittier City Elementary
- Lowell Joint Elementary (Fullerton)

High School Districts

- Whittier Union High School
- Fullerton Union High School

School Levels

- East Whittier Elementary Schools (9)
- East Whittier Middle Schools (2)
- South Whittier Elementary School (1)
- Whittier City Elementary Schools (8)
- Whittier City Middle Schools (3)
- Whittier Union High Schools (4)
- Lowell Joint Elementary School (1)

Other Schools

- Whittier College
- Private Schools

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies



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Exhibit 4.15-3 | Districts and Schools
Whittier General Plan Update
 Whittier, California

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Parks

The City of Whittier park system has 23 parks and the 4.5-mile Whittier Greenway Trail. In addition to City parks, a State-owned park and three Los Angeles County parks provide easily accessible open space to residents within the Planning Area. The City plans to extend the Whittier Greenway Trail eastward 2.8 miles to Orange County. Residents of the Planning Area also have access to an extensive trail system that is part of the Puente Hills Preserve which lies along the northern border of the Planning Area (Whittier, 2017).

As shown in Table 4.15-2 (Park Types Summary) of the Envision Whittier Existing Conditions Atlas, City-owned and operated parks constitute 443.5 acres of parkland. With a population of 87,690 residents, the City provides 5.06 acres of parkland per 1,000 residents. Los Angeles County and State parks provide an additional 32.4 acres of parkland, for an overall total of 475.8 acres. Factoring in the additional 55,500 residents within Whittier’s Sphere of Influence, there are 3.32 acres of parkland per 1,000 residents in the Planning Area (Whittier, 2017).

**Table 4.15-2
Park Types Summary**

Park Types – City of Whittier	Size	Number of Parks	Total Park Acres
Mini Parks	0.25 to 1 acre	2	2.8
Neighborhood Parks	1 to 7 acres	10	33.5
Community Parks	7 to 30 acres	4	34.2
Natural Parks	50+ acres	2	327.0
Specialty Parks	N/A	5	11.2
Whittier Greenway Trail	N/A	1	34.7
City of Whittier Total		23	443.46
Park Types – Other Jurisdictions		Number of Parks	Total Park Acres
Pio Pico State Historic Park		1	5.7
LA County Parks (Planning Area)		3	26.7
Other Jurisdictions Total Acres		4	32.4
Whittier + Other Jurisdictions Total		28	475.8

Source: Envision Whittier Existing Conditions Atlas, 2017.

Libraries

The City of Whittier Library was established in 1900. Currently, the Planning Area has two library facilities: the Central Library built in 1956 as part of the City’s Civic Center; and the Whittwood Branch Library built in 1968 and located on South Gertrudes Avenue. Most residential neighborhoods within the Planning Area are within a one-mile walking distance to either of the two libraries. Three Los Angeles County public libraries are also in or near the Planning Area: Sorenson Library in West Whittier-Los Nietos; Los Nietos Library on Slauson Avenue; and South Whittier Library. The Whittier Public Library collection includes over 230,000 items, annually circulates 450,000 items, and receives 750,000 hits on its website and electronic databases. Both branches offer internet access and free Wi-Fi. The Whittier Public Library also offers a wide range of programs for children, teens, adults, and seniors (Whittier, 2017).

4.15.2 – REGULATORY FRAMEWORK

Federal

Standardized Emergency Management System and National Incident Management System (SEMS)

According to the State's SEMS, local agencies have primary authority regarding rescue and treatment of casualties and making decisions regarding protective actions for the community. When a major incident occurs, the first few moments are critical in terms of reducing loss of life and property. First responders must be sufficiently trained to understand the nature and the gravity of the event to minimize the confusion that inevitably follows catastrophic situations. This on-scene authority rests with the local emergency services organization and the incident commander. Additional information regarding the City's SEMS program can be found in Section 4.9 Hazards and Hazardous Waste.

State

California Building Code

The 2019 California Building Code (CBC) became effective January 1, 2020, including Part 9 of Title 24, the California Fire Code. Section 701A.3.2 of the CBC requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, comply with all sections of the chapter.

California Health and Safety Code (Sections 13000 et seq.)

This code establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Fire Code

The City of Whittier has adopted the 2019 California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. Specifications for exterior materials and construction methods for structures located in the wildland-urban interface (WUI). These regulations pertain to any new building located within a Local Agency 'Very High Fire Hazard Severity Zone' or within a State Responsible 'Moderate', 'High', or 'Very High Fire Hazard Severity Zone'.

Regional

Los Angeles County Fire Department

The City contracts with the Los Angeles County Fire Department (LACFD) for fire protection and rescue services and emergency medical services. The LACFD also has mutual aid agreements with surrounding jurisdictions for assistance when needed during major fire events. The LACFD establishes incident command centers and emergency operation centers as necessary depending on the involved event.

Los Angeles County Office of Emergency Management (OEM)

The OEM has the responsibility of comprehensively planning for, responding to and recovering from large-scale emergencies and disasters that impact Los Angeles County. OEM's work is accomplished in partnership and collaboration with first response agencies, as well as non-profit, private sector and government partners.

Education Code Section 17620

The Code allows school districts to assess fees on new residential and commercial construction within their respective boundaries. These fees can be collected without special city or county approval, to fund the construction of new school facilities necessitated by the impact of residential and commercial development activity. In addition, these fees can also be used to fund the reconstruction of school facilities or reopening schools to accommodate development-related enrollment growth. Fees are collected immediately prior to the time of the issuance of a building permit by the City or the County.

Leroy F. Green School Facilities Act (1998)

California Government Code Section 65995 sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the District.

Quimby Act (1975)

The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland. With the anticipated population growth, the City will use impact fees from development projects to fund park construction. The City has adopted an ordinance implementing the provisions of the Quimby Act (City Municipal Code Section 17.16.040 - Formula for dedication of land).

LocalCity of Whittier General Plan

The Public Safety and Land Use Elements of the 1993 Whittier General Plan includes policies and programs to minimize potential damage and hazards to public services including, but not limited to, the following:

*Public Safety Element**Issue: Fire*

Goal 1.0: Promote an environment that is reasonably safe from hazards so that Whittier residents may conduct their daily lives free from fear and apprehension.

Policy 1.1: Continue to work for the highest quality of fire, police, and health protection possible for all Whittier residents.

Goal 3.0: Maintain and enhance safety and emergency services in the City.

Policy 3.5: Provide adequate fire and police services for new developments in the planning area.

Issue: Police

Goal 1.0: Promote an environment that is reasonably safe from hazards so that Whittier residents may conduct their daily lives free from fear and apprehension.

Policy 1.1: Continue to work for the highest quality of fire, police, and health protection possible for all Whittier residents.

Issue: Safety Services

Goal 3.0: Maintain and enhance safety and emergency services in the City.

Policy 3.5: Provide adequate fire and police services for new developments in the planning area.

Policy 3.9: Consider the capacity of existing infrastructure and the potential demand for public services in future planning and review of new development.

Issue: Crime and Violence

Goal 5.0: Reduce crime and violence in the City.

Policy 5.1 Regularly review police services to determine the adequacy and quality of service.

Policy 5.2 Continue to provide programs that deter crime and violence in Whittier and the surrounding area.

Policy 5.3 Encourage neighborhood groups to assist the police in crime prevention and law enforcement.

Policy 5.4 Develop programs for discouraging crime and gang violence in the city.

Policy 5.5 Work with other agencies and jurisdictions to promote safe driving to minimize traffic accidents.

Environmental Resource Management Element

Goal 4 Preservation of open space land for resource retention and recreational use will be a priority in future planning.

Policy 4.1 The City should encourage the dedication of open space land for public use whenever possible.

Policy 4.2 Retain existing open space in public ownership, wherever possible, including surplus land within the City limits offered for sale by other public agencies.

Policy 4.3 Encourage the retention of privately-owned outdoor recreation uses and consider the public acquisition of such land when the open space uses located, thereon, may be discontinued by the owners.

Policy 4.4 Actively pursue acquisition of open space areas not only to provide areas for traditional recreation activities, but also to preserve ecological features which are valuable for their scientific, educational, scenic, and cultural values.

Policy 4.5 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, with the consent of the owners and other appropriate agencies.

Policy 4.6 Make every effort to locate possible sources of funds for the acquisition of open space, including, but not limited to, Federal funds, State funds, County funds, Proposition A (Safe Neighborhoods & Parks Act of 1992), and funds from private sources.

Policy 4.7 Work toward the acquisition and dedication of open space land in the unincorporated county areas for purposes of expanding the Hellman Wilderness Park.

Goal 5 Provide a sufficient range of recreation opportunities to meet the needs of residents of all ages and interests in the community.

Policy 5.1 Identify the needs and possible locations for special use facilities such as trails, swimming pools, multi-use sports fields, walking trails, bicycle and equestrian trails in the City.

Policy 5.2 Encourage cooperation between all user groups and agencies involved with parks and recreation, with special emphasis on the coordination of parks and school programs and facilities.

Policy 5.3 Integrate recreation planning efforts to consider conservation, open space, and scenic highway areas and programs designed to conserve these resources.

Policy 5.4 Identify all land under public and private ownership used for recreation within the Whittier planning area in order to determine the availability of such lands for park and recreation purposes

Policy 5.5 Develop a system of continuous cross town bicycle, equestrian, and hiking trails which will encourage the use and enjoyment of public open space in the City and the surrounding area.

Policy 5.6 Cooperate with the County of Los Angeles in the establishment and acquisition of open space and park land, including but not limited to, greenbelts, trails, and wilderness-type reservations.

Policy 5.7 Update the survey of parks and recreational facilities in the City to assess the current effectiveness of parks and recreation programs, as well as the needs and interests of Whittier residents, and update the City's Master Plan for Parks and Recreational Facilities.

Policy 5.8 Translate recreational needs into space requirements in order to determine optimum standards for park development.

Policy 5.9 Promote access to the physically challenged within existing and future parks.

Policy 5.10 Coordinate the use of parkland with other community concerns, such as air quality, traffic circulation, and safety.

Policy 5.11 Encourage the use of parks by promoting a wide range of uses and activities for equestrians, hikers, children, joggers, cyclists, etc.

Policy 5.12 Encourage joint use/maintenance agreements with school districts to provide athletic fields and gymnasiums for the use of all persons in the community.

Policy 5.13 Encourage the landscaping of railroad rights-of-way and major arterials to serve as buffers from adjacent uses.

Policy 5.14 Wherever feasible, provide recreational improvements in conjunction with existing facilities that have other primary purposes, such as flood control or abandoned railroad rights-of-way.

Policy 5.15 Encourage the preservation of privately-owned residential open space (e.g. common areas within residential projects).

Policy 5.16 Support the implementation of the Whittier Hills Park Plan.

Land Use Element

Goal 5.0: Provide a wide range of safe, attractive and accessible recreational opportunities to meet the needs of individuals of all ages, families, community groups, and the physically challenged who live in the City.

Policy 5.1: Develop and retain parks and recreation areas throughout the City to serve the greatest number of residents.

Policy 5.3: Develop parks and recreational facilities to complement and support other community facilities.

Policy 5.4: Develop park facilities in areas where there are identified deficiencies.

Policy 5.5: Avoid the destruction of an existing park, unless another park of larger size is created in the immediate vicinity.

Goal 6.0: Encourage the retention and development of parkways, median strips, green belts, bike trails, and other open landscape areas, which provide scenic variety and aesthetic improvement.

Policy 6.1: Promote the retention and development of landscaped buffer zones along major thoroughfares, streets, and railroad lines.

Policy 6.2: Promote the maintenance and development of sidewalks and planted parkways along Whittier's streets and promote the planting and maintenance of parkway trees.

Policy 6.3 Promote the conversion of both active and abandoned railroad right-of-way to multi-use trails, greenbelts, and other recreation open space uses, where appropriate.

Policy 6.4 Promote the preservation of important ecological resources within the planning area through a variety of means, including setting aside areas for open space, trails, and recreational uses.

Policy 6.5 Work with property owners and government agencies to promote the preservation of as much of the Puente Hills as possible, for both passive and active recreation.

4.15.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to public services if it would:

- a) 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 public services:
 - I. Fire protection;
 - II. Police protection;
 - III. Schools;
 - IV. Parks;

V. Other public facilities.

4.15.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to the provision of public services; which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

New or Altered Government Services

Impact PS-1 – Would the GPU 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 public services:

I. Fire ProtectionAnalysis of Impacts

The 2040 planning horizon for the General Plan Update is estimated to result in increases of approximately 472 single family dwellings, 7,023 multifamily dwellings, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year.

2021 General Plan Update. The Public Safety, Noise, and Health Element of the GPU contains goals and policies regarding fire protection. Provided below are the applicable goals and policies in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 3: Reduced risk of fire and minimized consequences from fire events.

Policies

PSHN-3.1: Prevent fires by conducting routine inspections, incorporating fire safety features in new development, and educating the public to take proactive action to minimize fire risks.

PSHN-3.2: Ensure that the City has adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

PSHN-3.3: Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.

PSHN-3.4: Require new development projects to have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

PSHN-3.5: Maintain code enforcement programs that require private and public property owners to minimize fire risks by maintaining buildings and properties to prevent blighted conditions, removing excessive or overgrown vegetation (e.g., trees, shrubs, weeds), and removing litter, rubbish, and illegally dumped items from properties.

General Plan Analysis. The increase in City residents and land use intensity in the Planning Area would result in an incremental increase in demand for fire services and existing fire protection resources within the City. However, with continued payment of fees for Fire Protection services from Los Angeles County Fire Department, future projects developed within the Planning Area would not have a significant effect on service demands. Annual fees for fire protection services are based on staffing levels in the City plus overhead cost shares established at the time the annual contracts are approved by the City Council. These fees are updated annually based on salary and employee benefits and overhead as agreed by the Fire District and the City. In the event that additional fire protection facilities and/or resources are needed in the Planning Area, property tax growth would provide the City with the funding to meet new growth needs. Additionally, development within the proposed Planning Area would be subject to current Los Angeles County Fire Department requirements for fire sprinkler systems, fire alarm systems, fire flow, and equipment and firefighter access, as well as fire code requirements. Compliance with these standards would be ensured through the plan check process prior to the issuance of building permits and would reduce the potential for fire emergencies at future project sites. Finally, based on the proximity of the Planning Area to the Fire Stations in the City, it is expected that the response times would be within the national standard of five minutes or less for fires and basic life support, and eight minutes or less for advanced life support.

Summary and Conclusions. For these reasons, the construction or expansion of existing fire facilities would not be required as a result of adoption of the GPU. Therefore, the GPU would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

II. Police Protection

Analysis of Impacts

The 2040 planning horizon for the General Plan Update is estimated to result in increases of approximately 472 single family dwellings, 7,023 multifamily dwellings, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year.

2021 General Plan Update. The Public Safety, Noise, and Health Element of the GPU contains a goals and policies regarding police protection: Provided below are the applicable goals and policies from the GPU relative to police protection - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 2: Superior law enforcement and public safety services.

Policies

PSHN-2.1: Provide the highest possible quality of fire, police, and health protection for all Whittier residents.

PSHN-2.2: Work with the Police Department and Los Angeles County Fire Department to determine and meet community needs for services.

PSHN-2.3: Ensure that adequate safety lighting is provided at all City facilities and places the public uses frequently, including but not limited to parks, recreational facilities, City Hall, sidewalks/streets, plazas, paseos, and alleys.

PSHN-2.4: Require elements of crime prevention through building design (CPTED) to be integrated into new construction and building modernization projects.

PSHN-2.5: Involve public safety officials in the review of development plans.

PSHN-2.6: Encourage multi-family building owners to provide active or onsite building management to promote and encourage adherence to the roles and regulations that govern the occupancy of multifamily buildings.

PSHN-2.7 Enhance vehicular, pedestrian, and bicyclist traffic flow and safety, especially near sensitive sites such as schools to fulfill Safe Routes to School Plan and other mobility and safety plans.

PSHN-2.8: Coordinate with residents, businesses, school districts, and community and neighborhood organizations to develop and expand partnerships to prevent crime, build public trust, and proactively address public safety issues.

PSHN-2.9: Maintain Police Department programs that support residents and businesses in community efforts to prevent crime and improve neighborhood safety.

PSHN-2.10: Coordinate with school districts to provide services that help at-risk youth avoid making poor choices or facing adverse life conditions, with services including onsite counseling, crisis intervention services, emergency hotlines, case management services, job and internship opportunities, and recreation programs.

PSHN-2.11: Maintain and implement programs that address property maintenance conditions that foster crime or the fear of crime, such as blight, litter, graffiti, illegal dumping, and abandoned vehicles

General Pan Analysis. In the Planning Area, the average response time for Priority One Calls is 5 minutes and 12 seconds. Priority One calls include robbery, assault with a deadly weapon, traffic collisions with injuries, etc. The average response time for all other calls is 24 minutes and 13 seconds (Lo/Ruiz, 2020). The increased land use intensity in the Planning Area could increase the frequency of emergency and non-emergency calls to the Whittier Police Department, as compared with existing conditions. However, the GPU is not anticipated to increase demand for police protection to the extent that new facilities would be required. While new development would increase incremental demand on police protection services, such demand would be offset by increased property tax revenues which can then be used for the maintenance and/or expansion of police protection facilities. The City does not anticipate needing to expand existing or build new police facilities as a result of potential population and land use intensity increases from the GPU.

Summary and Conclusions. The proposed GPU would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities. Impacts resulting from the proposed GPU would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

III. Schools

Analysis of Impacts

The 2040 planning horizon for the General Plan Update is estimated to result in increases of approximately 472 single family dwellings, 7,023 multi-family dwellings, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year. While the proposed GPU would result in increased residential and non-residential building area and a higher population in the Planning Area, trends in declining student-per-dwelling rates are estimated to result in a decrease in the number of students in the Planning Area of approximately 1,733 students. The Planning Area is served by two high school (grades 9-12) districts and five elementary/middle school (grades K-8) districts. These seven districts operate a total of 48 schools with over 36,000 enrolled students although their boundaries are not coterminous with those of the Planning Area. Only 33 of the schools are located within the Planning Area. The other 15 schools are located outside the Planning Area but still provide services to residents from neighborhoods within the Planning Area. One out of every five residents in the Planning Area is within the ages of 5 through 17 which results in a school-age population of approximately 30,000 children (Whittier, 2017).

Projects within the Planning Area would be required to pay school fees to the districts that serve their location. Development Impact Fees finance the construction and/or reconstruction of school facilities needed to accommodate students coming from new development. Development Impact Fees may be levied for both residential and commercial construction, pursuant to Education Code Section 17620 and California Government Code Section 65995. As stated in California Government Code Section 65996, payment of school impact fees in accordance with California Government Code Section 65995 and/or Education Code Section 17620 is deemed to constitute full and complete mitigation for potential impacts to schools caused by development. Because implementation of the General Plan Update would result in a decrease in the number of students in the Planning Area, and because new development in the Planning Area will be required to pay Development Impact Fees, impacts related to the need for new school facilities as a result of the proposed GPU would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

IV. Parks

Analysis of Impacts

The residents, employees, and visitors of the Planning Area could use nearby parks and recreation facilities. As shown in Table 4.16-1, City-owned and operated parks constitute 443.46 acres of parkland. With a population of 87,690 residents, the City currently provides 5.05 acres of parkland per 1,000 residents. Los Angeles County and State parks provide an additional 32.36 acres of parkland, for an overall total of 475.82 acres. Factoring in the additional 55,500 residents within Whittier’s Sphere of Influence, there are 3.33 acres of parkland per 1,000 residents in the Planning Area. This ratio meets the National Park and Recreation Association’s guideline of 2.5–4.0 acres of parkland for every 1,000 residents (NRPA, 2021).

2021 General Plan Update. The Public Safety, Noise, and Health and Resource Management Elements of the proposed GPU contains goals and policies that would ensure sufficient access to parks and recreation facilities. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 9: Residential neighborhoods not burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles.

Policies

PSHN-9.13: Assess existing parks and gathering spaces around Uptown and within Disadvantaged Communities to ensure parks amenities are tailored to meet the evolving needs of the community, as well being responsive to unique cultural, historic, social, and demographic needs.

PSHN-9.14: Expand park and recreation opportunities in all neighborhoods, especially within Disadvantaged Communities, and ensure that opportunities are offered within comfortable walking distance of homes, schools, and businesses to encourage more physically and socially active lifestyles.

PSHN-9.15: Deter criminal activity in neighborhoods, streets, and public areas through the design and monitoring of play areas, parks, greenway trails, plazas, and urban pocket parks.

PSHN-9.17: Expand the potential of community garden and urban farm sites on public properties, including parks, public easements, rights-of-way, and schoolyards.

PSHN-9.31: Encourage the provision of recreational activities for all people, consistent with the changing demographic composition of Whittier.

PSHN-9.32: Expand health and exercise stations within parks, trails, public right-of-way, and other public spaces.

PSHN-9.33: Partner with community organizations and local businesses to pursue funding opportunities to expand recreational facilities and programming to increase physical activity.

PSHN-9.34: Consider unique neighborhood needs in developing facilities and programs for indoor and outdoor activities within Disadvantaged Communities.

Resources Management Element

Goal 9: Create a superior system of parks, recreation facilities, amenities, green spaces, and open spaces accessible to all Whittier residents.

Policies

RM-9.1: Provide a system of park, recreation facilities, and green spaces that allows any resident to access those facilities via an easy 10-minute walk or bike ride.

RM-9.2: Provide pedestrian, bicycle, and transit connections to new and existing parks and recreation facilities to enhance use and access.

RM-9.3: Use creative or nontraditional methods to create additional park, recreation, and green spaces.

RM-9.4: Promote preservation of open spaces that provide native habitats that support wildlife diversity.

RM-9.5: Collaborate with the County of Los Angeles, Southern California Association of Governments, Puente Hills Habitat Conservation Authority, neighboring cities and communities, and wildlife agencies to improve open space planning and implementation of the resource management policies and promote wildlife conservation within the City and its sphere of influence.

RM-9.6: Partner with wildlife and conservation agencies, including the Puente Hills Habitat Preservation Authority, to identify funding sources and areas within the Puente Hills for: (1) preservation of open space to support wildlife in perpetuity, (2) innovative conservation projects that allow for preservation of open space balanced with recreational land uses, and (3) promoting sustainable design and land development.

RM-9.7: Support implementation of the Whittier Hills Park Plan.

RM-9.8: Dedicate as much of the planning area as feasible between Workman Mill Road and La Habra Heights within the Puente Hills to preservation as permanent open space.

Goal 10: Provide residents of all ages, cultures, and incomes with a range of recreation opportunities to meet multigenerational, environmental, and recreation interests.

Policies

RM-10.1: Improve existing and build new park spaces and recreation facilities responding to the community's changing demographics and needs.

RM-10.2: Enhance park aesthetics, lighting, and design to provide safe and environmentally responsible park and recreation spaces.

RM-10.3: Provide distinctive parks and recreation facilities that support places for social interaction, neighborhood/community identity, beauty, and livability through unique cultural, historic, and environmental features such as artwork, historic buildings, heritage trees, etc.

RM-10.4: Acquire properties for open space that will provide values that support scientific, educational, scenic, and cultural values while also maintaining wildlife habitat and ecosystem services.

RM-10.5: Support the efforts of Los Angeles County entities to procure unincorporated lands adjacent to Hellman Park for open space expansion of the park and for preservation purposes in partnership with the Puente Hills Habitat Conservation Authority.

As shown in Table 4.15-2 (Park Types Summary) of the Envision Whittier Existing Conditions Atlas, City-owned and operated parks constitute 444.6 acres of parkland. With a population of 87,690 residents, the City provides 5.07 acres of parkland per 1,000 residents. Los Angeles

County and State parks provide an additional 32.36 acres of parkland, for an overall total of 475.82 acres. Factoring in the additional 55,500 residents within Whittier’s Sphere of Influence, there are 3.33 acres of parkland per 1,000 residents in the Planning Area (Whittier, 2017). The acreage goal identified for local parks in the Whittier Municipal Code is four and eight-tenths (4.8) acres per 1,000 residents. The proposed GPU has a projected build-out population of 161,291 persons (an increase of approximately 20,190 persons over existing conditions) which corresponds to a greater demand for recreational facilities in the Planning Area. Using the acreage goals for local parks and regional park facilities, implementation of the proposed GPU would generate a new overall acreage target of 541 acres (an increase of 96 acres over existing conditions). Implementation of the proposed General Plan Update would not significantly decrease the existing park ratio of 3.33 acres per thousand residents. All new dwelling units developed under the proposed GPU would be subject to Development Impact Fees (DIF) fees and the City’s Quimby Ordinance, requiring dedication or in-lieu fees equivalent to three acres of parkland per 1,000 persons. These parks funding mechanisms will offset the incremental increase in demand for park facilities from implementation of the GPU. All future developments within the Planning Area would be required to pay DIF and/or Quimby fees. For the above reasons, impacts to existing recreational facilities would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

V. Other Public Facilities

Analysis of Impacts

Other public facilities and services provided within the Planning Area include library services and City administrative services. The City of Whittier Library was established in 1900. Currently, the Planning Area has two library facilities: the Whittier Central Library built in 1956 as part of the City’s Civic Center; and the Whittwood Branch Library built in 1968 and located on South Gertrude’s Avenue. Most residential neighborhoods within the Planning Area are within a one-mile walking distance to either of the two libraries. Three Los Angeles County public libraries are also in or near the Planning Area: Sorenson Library in West Whittier-Los Nietos; Los Nietos Library on Slauson Avenue; and South Whittier Library.

2021 General Plan Update. Both the Public Safety, Noise, and Health Element and Resource Management Element of the proposed GPU contain goals and policies that would ensure sufficient access to libraries and other public facilities. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 9: Residential neighborhoods not burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles.

Policies

PSHN-9.13: Assess existing parks and gathering spaces around Uptown and within Disadvantaged Communities to ensure parks amenities are tailored to meet the evolving needs

of the community, as well being responsive to unique cultural, historic, social, and demographic needs.

PSHN-9.14: Expand park and recreation opportunities in all neighborhoods, especially within Disadvantaged Communities, and ensure that opportunities are offered within comfortable walking distance of homes, schools, and businesses to encourage more physically and socially active lifestyles.

PSHN-9.17: Expand the potential of community garden and urban farm sites on public properties, including parks, public easements, rights-of-way, and schoolyards.

PSHN-9.34: Consider unique neighborhood needs in developing facilities and programs for indoor and outdoor activities within Disadvantaged Communities.

Resources Management Element

Goal 9: Create a superior system of parks, recreation facilities, amenities, green spaces, and open spaces accessible to all Whittier residents.

Policies

RM-9.3: Use creative or nontraditional methods to create additional park, recreation, and green spaces.

Goal 10: Provide residents of all ages, cultures, and incomes with a range of recreation opportunities to meet multigenerational, environmental, and recreation interests.

General Plan Analysis. The limited size and aging condition of the Whittier Central Library building of the Whittier Library makes it difficult to satisfy rising demand for services and the need to modernize and keep pace with 21st century information technologies. The Whittwood Branch Library was upgraded in 2012 at a cost of \$5.8 million. The City is in the process of remodeling the Whittier Central Library to a state-of-the-art facility and add 5,211 square feet to the current 36,586-square foot building. (Whittier, 2017). The residents, employees, and customers of the Planning Area could use the City's library services, but the increase in use would not be significant relative to citywide demand.

Summary and Conclusions. It is anticipated that existing library and City administrative services would accommodate any negligible increase in demand due to implementation of the proposed GPU. As such, impacts to other public facilities in the area would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact PS-2 – Would the GPU cause substantial adverse cumulative impacts with respect to public services?

Analysis of Impacts

The General Plan Update does not include specific development projects. Development projects in the Planning Area would generally increase the land use intensities in the service areas for the Los Angeles County Fire Department and the Whittier Police Department, potentially causing incremental and cumulative increases in the number of calls for fire and/or police protection services. Development of residential projects within the boundaries of the school districts that serve the Planning Area would lead to incremental increases in the number of students served by the districts. Development of residential projects in the Planning Area would also lead to increases in the number of people who use the City’s park and library facilities. The GPU would result in increased capacity to support an increase of approximately 20,190 residents in the Planning Area.

The increase in demand for public services in the City attributable to the GPU would be incremental as growth occurred and would be offset by DIF and CFD assessments. Projects constructed within the Planning Area over the life of the Plan would also be required to be developed in accordance with applicable fire codes and emergency access requirements. Compliance with these requirements would help prevent and/or ameliorate fire emergencies (automatic sprinkler systems and fire alarms) and would help facilitate more expedient emergency response (adequate fire flows, turning radii, width of emergency accesses). Similarly, the GPU has been designed to improve public safety through design practices, enhanced lighting, and updated wayfinding signage. These design practices and operational practices would lessen the demand for police protection services within the Planning Area. The Los Angeles County Fire Department reviews fire station placement and fire services through its annual budget process, and resources are expanded or reassigned as necessary to meet increases in service demands. Similarly, the Whittier Police Department annually evaluates its service needs. Payment of Development Impact Fees and/or special Community Facilities District taxes by future projects in the service areas of the Los Angeles County Fire Department and the Whittier Police Department would offset the costs of increased service needs as necessary and would ensure that performance objectives for fire and police services are not substantially affected by incremental increases in land use intensity within service areas. The need for new facilities as a result of these development projects has not been identified by either department.

Regarding school services, the contribution of future projects within the Planning Area to increased demand for such services would be minor. The districts that serve the Planning Area have verified their ability to accommodate increases in students resulting from development projects through the collection of development impact fees. As such, the increases in student enrollment resulting from future projects that fall within the service area of the school districts that serve the Planning Area would be accommodated within the district’s existing facilities, and no new facilities would be required. The General Plan Update in combination with other projects in the area would not result in the need for new school facilities.

Potential cumulative impacts with respect to incremental increases in demand for parks would be offset by required DIF fees including special Community Facilities District (CFD) taxes and Quimby ordinance dedications/fees.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.15.5 REFERENCES

- Fire Captain Centeno. Request for Fire Department Service Information for the Proposed Whittier General Plan Update. Telephone correspondence between Cameron Hile, Senior Analyst, MIG, Inc. and Jason Centeno, Fire Captain, Station #17 (Los Angeles County Fire Department). August 3, 2020.
- Fire Captain Manley. Request for Fire Department Service Information for the Proposed Whittier General Plan Update. Telephone correspondence between Cameron Hile, Senior Analyst, MIG, Inc. and Josh Manley, Fire Captain, Station #28 (Los Angeles County Fire Department). August 3, 2020.
- Fire Captain Schute. Request for Fire Department Service Information for the Proposed Whittier General Plan Update. Telephone correspondence between Cameron Hile, Senior Analyst, MIG, Inc. and Mr. Schute, Fire Captain, Station #28 (Los Angeles County Fire Department). August 3, 2020.
- Fire Captain Esparza. Request for Fire Department Service Information for the Proposed Whittier General Plan Update. Telephone correspondence between Cameron Hile, Senior Analyst, MIG, Inc. and Dave Esparza, Fire Captain, Station #59 (Los Angeles County Fire Department). August 3, 2020.
- Fire Captain Espiritu. Request for Fire Department Service Information for the Proposed Whittier General Plan Update. Telephone correspondence between Cameron Hile, Senior Analyst, MIG, Inc. and Mr. Espiritu, Fire Captain, Station #96 (Los Angeles County Fire Department). August 3, 2020.
- Marcia Velasquez. Los Angeles County Fire Department: Planning Division. Email Correspondence between Cameron Hile, Senior Analyst, MIG, Inc. and Marcia Velasquez, Administrative Assistant. June 1, 2021 and June 2, 2021.
- Office of Public School Construction. 2020. State of California Enrollment Certification/Projection – School Facility Program. Revised May 2020.
- Police Captain Ruiz and Director Lo. Request for Police Department Service Information for the Proposed Whittier General Plan Update. Email Correspondence between Cameron Hile, Senior Analyst, MIG, Inc., Ms. Monica Lo, Director of Administrative Services, and Police Captain Aaron Ruiz (Whittier Police Department). August 7, 2020.
- City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

4.16 – Recreation

This EIR chapter addresses recreation impacts associated with the proposed General Plan Update (GPU). Issues of interest are recreation impacts identified by the CEQA Guidelines and whether the GPU will: increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and whether the GPU will include recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.16.1 – ENVIRONMENTAL SETTING

The City of Whittier park system has 24 parks, which includes the 4.5-mile Whittier Greenway Trail. In addition to City parks, a State-owned park and three Los Angeles County parks provide easily accessible open space to residents within the Planning Area. The City plans to extend the Whittier Greenway Trail eastward 2.8 miles to Orange County. Residents of the Planning Area also have access to an extensive trail system within the Puente Hills Preserve-that lies along the northern border of the Planning Area (Whittier, 2017). As shown in Table 4.16-1 (Park Types Summary) of the Envision Whittier Existing Conditions Atlas, city-owned and operated parks constitute 443.5 acres of parkland. With a population of 87,690 residents, the City provides 5.05 acres of parkland per 1,000 residents. Los Angeles County and State parks provide an additional 32.4 acres of parkland, for an overall total of 475.82 acres. Factoring in the additional 55,500 residents within Whittier’s Sphere of Influence, there are 3.32 acres of parkland per 1,000 residents in the Planning Area (Whittier, 2017).

**Table 4.16-1
Park Types Summary**

Park Types – City of Whittier	Size	Number of Parks	Total Park Acres
Mini Parks	0.25 to 1 acre	2	2.8
Neighborhood Parks	1 to 7 acres	10	33.5
Community Parks	7 to 30 acres	4	34.2
Natural Parks	50+ acres	2	327.0
Specialty Parks	N/A	5	11.2
Greenway Trail	N/A	(1)	34.7
City of Whittier Total		23	443.46
Park Types – Other Jurisdictions		Number of Parks	Total Park Acres
Pio Pico State Historic Park		1	5.7
LA County Parks (Planning Area)		3	26.7
Other Jurisdictions Total Acres		4	32.4
Whittier + Other Jurisdictions Total		28	475.8

Source: Envision Whittier Existing Conditions Atlas, 2017.

According to the National Recreation and Park Association, the level of service for park and recreation agencies serving between 50,000 and 99,999 residents ranges between 4.5 and 15.2 acres of parkland for every thousand residents. Nearly two thirds of Whittier’s 23 parks are located within the northwestern portion of the Planning Area. As a result, most residents in neighborhoods stretching from Michigan Park to Orange Grove live within one-half mile walking distance of a park, the distance most people are willing to walk or bike to a park. In contrast, southeastern neighborhoods such as Friendly Hills, Sun Gold, and Whittwood are not within walking distance of a park. Similarly, the unincorporated communities of South Whittier, portions

of West Whittier-Los Nietos, and adjacent to Peck Road also lack easy access to nearby parks (Whittier, 2017).

Community Recreation Facilities

The City of Whittier operates two community centers, one in Uptown and the second at Parnell Park. The City also has two senior centers, located adjacent to or within the community centers. Natural parks make up more than 70% of Whittier’s park acreage. To increase the number of park and sport facilities available to residents, the City has established joint-use agreements with two school districts: East Whittier City District and Whittier Union High School District. A significant need exists for additional sports facilities including baseball/softball, football, soccer, and an aquatic center in the eastern half of the Planning Area (Whittier, 2017). Exhibit 4.16-1 (Recreation Facilities and Access) illustrates the location of park and recreation facilities within the Planning Area. Tables 4.16-2 (Parks and Recreation Facilities) and 4.16-3 (Recreation Buildings and Major Facilities) list the parks and recreation facilities within the Planning Area along with their amenities and size, if applicable.

**Table 4.16-2
Parks and Recreation Facilities**

Park Name ¹	Amenities	Park Type	Management	Acres
Anaconda Park 14575 Anaconda Street (1)	Play Equipment, Restrooms, Basketball Half Courts, Fitness Stations, Jogging Trail	Neighborhood Park	City of Whittier	2.71
Arroyo Pescadero Trailhead 7531 Colima Road (2)	Trailhead, Wilderness Trails	Specialty Park	City of Whittier	0.52
Bailey Ranch House 13421 Camilla Street (3)	Museum, Historic Depot	Specialty Park	City of Whittier	0.38
Broadway Park 12816 Broadway Avenue (4)	Lighted Tennis Courts, Play Equipment, Restrooms, Horseshoe Pit	Neighborhood Park	City of Whittier	1.95
Central Park 6532 Friends Avenue (5)	Play Equipment, Restrooms, Gazebo, Fish Pond	Neighborhood Park	City of Whittier	1.70
Founders Memorial Park 6031 Citrus Avenue (6)	Passive Turf Areas	Neighborhood Park	City of Whittier	5.93
Guirado Park 5760 Pioneer Boulevard (7)	Small Banquet Facility, Play Equipment, Restrooms, Handball Courts, Basketball Half Court, Softball Field	Neighborhood Park	City of Whittier	4.74
Hellman Park 5700 Greenleaf Avenue (8)	Trailhead, Wilderness Trails	Natural Park	City of Whittier	279.00
Hoover Fountain 10839 Beverly Boulevard (9)	Fountain	Mini Park	City of Whittier	0.62
J.G. Whittier Park 7227 Whittier Avenue (10)	Play Equipment, Restrooms, Spray Pool, Softball Field	Neighborhood Park	City of Whittier	1.87
Joe Miller Park 7630 Washington Avenue (11)	Skate Park, Softball Field, Restrooms	Specialty Park	City of Whittier	2.03
Kennedy Park 8530 Painter Avenue (12)	Play Equipment, Outdoor Classroom, Restrooms	Neighborhood Park	City of Whittier	1.54
Laurel Park 8825 Jacmar Avenue (13)	Play Equipment, Restrooms	Neighborhood Park	City of Whittier	0.84
Lee Owens Park 7930 Greenleaf Avenue (14)	Play Equipment, Basketball Court, Restrooms	Neighborhood Park	City of Whittier	1.53
Leffingwell Park 15740 Starbuck Street (15)	Play Equipment, Lighted Tennis Courts, Restrooms	Neighborhood Park	City of Whittier	2.18
Mar Vista Fountain Mar Vista St./Colima Rd (16)	Fountain	Mini Park	City of Whittier	0.44

Michigan Park 8228 Michigan Avenue (17)	Play Equipment, Softball Field, Fitness Stations, restrooms	Community Park	City of Whittier	10.00
Murphy Ranch Park 16200 Las Cumbres Dr. (18)	Wilderness Trails	Natural Park	City of Whittier	48.00
Palm Park 5703 Palm Avenue (19)	Banquet Room, Swimming Pool, Play Equipment, Softball Field, Basketball Court, Lighted Tennis Courts, Fitness Stations, Restrooms, Horseshoe Pit, Sinks and Stoves, Tennis Center	Community Park	City of Whittier	12.66
Parnell Park 10711 Scott Avenue (20)	Banquet Rooms, Play Equipment, Basketball Court, Softball Field, Restrooms, Senior and Community Building, Zoo	Community Park	City of Whittier	11.59
Penn Park 13950 Penn Street (21)	Play Equipment, Restrooms, Waterfall, Streams, Pond	Community Park	City of Whittier	8.00
Whittier Depot Park 7333 Greenleaf Avenue (22)	Banquet Room, Meeting Room, Restrooms	Specialty Park	City of Whittier	1.34
Whittier Greenway Trail	Multi-use community trail	Trail	City of Whittier	NA
York Field 9110 Santa Fe Springs Rd. (23)	Baseball and Softball Fields, Play Equipment, Restrooms	Specialty Park	City of Whittier	9.17
Pio Pico State Historic Park 6003 Pioneer Boulevard (24)	Museum	Specialty Park	State of California	5.71
Adventure Park 10130 Gunn Avenue (25)	Children's Play Area, Gymnasium, Sports Fields, Tennis Courts, Walking Path, Community Buildings	Community Park	County of Los Angeles	14.60
McNees Park 11590 Hadley Blvd (26)	Passive Turf Area	Mini Park	County of Los Angeles	0.61
Sorenson Park 11419 Rose Hedge Drive (27)	Library, Sports Fields, Basketball Courts, Children's Play Area	Community Park	County of Los Angeles	11.44
Dorland Park 10713 Whittier Blvd (28)	Passive grass area	Mini Park	City of Whittier	1.16

Source: *Envision Whittier Existing Conditions Atlas, 2017.*

¹ (#) - see Exhibit 4.16-1

**Table 4.16-3
Recreation Buildings and Major Facilities**

Facility Name	Address	Programs	Management
Whittier Community Center	7630 Washington Ave.	Fitness Classes, Open Sports Play, Room Rental	City of Whittier
Whittier Center Theatre	7630 Washington Ave.	Theatre Classes/ Productions, Theatre Rental	City of Whittier
Whittier Depot	7333 Greenleaf Avenue	Room Rental	City of Whittier
Palm Park Aquatic Center	5703 Palm Avenue	Aquatic Center, Swim Classes and Recreation Swim, Diving Classes, Pool Rental	City of Whittier
Parnell Park Community and Senior Center	15390 Lambert Road	Health Screenings, Fitness Classes, Senior Classes/ Events/ Support Services, Room Rental	City of Whittier
Uptown Senior Center	13225 Walnut Street	Health Screenings, Fitness Classes, Senior Classes/ Events/ Support Services, Room Rental	City of Whittier
Whittwood Branch Library	10537 Santa Gertrudes Avenue	Room Rental	City of Whittier
Whittier Central Public Library	7344 Washington Ave.	Room Rental	City of Whittier

Guirado Park	5760 Pioneer Boulevard	Room Rental	City of Whittier
Source: <i>Envision Whittier Existing Conditions Atlas</i> , 2017.			

Trails, Greenways, and Open Space

Trails, greenways, and open space within the Planning Area are illustrated in Exhibit 4.16-2 (Trails, Greenways, and Open Space). The Whittier Greenway Trail, developed through the transformation of an abandoned railroad right-of-way, is a 4.5-mile greenbelt for walking and biking. The trail begins on the City’s western boundary near the San Gabriel River Trail and terminates at Mills Avenue. The City plans to extend the trail an additional 2.8 miles to the Orange County line. Neighborhoods where residents live within a one-half mile walking distance of the existing Greenway Trail include Orange Grove, Palm Park, Uptown, and Anaconda Park, as well as portions of South Whittier, North West Whittier, and Rideout Heights. The planned extension will provide access to parks from South Whittier and Whittwood neighborhoods (Whittier, 2017). The Scharbarum Trail, within the Puente Hills Preserve, is located on a ridge and forms the spine for numerous other trails within the Preserve. This extensive trail network is accessed from multiple trailheads within the Planning Area. As shown in Table 4.16-4, a parks survey conducted in 2016 revealed that the trail’s access points are well used by Whittier residents and people from nearby communities. Finally, the Puente Hills Preserve is a large open space in the Planning Area that provides recreation opportunities to residents of Whittier and nearby communities (Whittier, 2017).

**Table 4.16-4
Recreation Use – All Trailheads Over Three Days**

Trailhead	Number of Visitors
Hacienda Hills	1,239
Hellman Park	3,262
Powder Canyon	912
Sycamore Canyon	330
Turnbull Canyon	1,425
Total	7,168
Source: <i>Envision Whittier Existing Conditions Atlas</i> , 2017.	

4.16.2 – REGULATORY FRAMEWORK

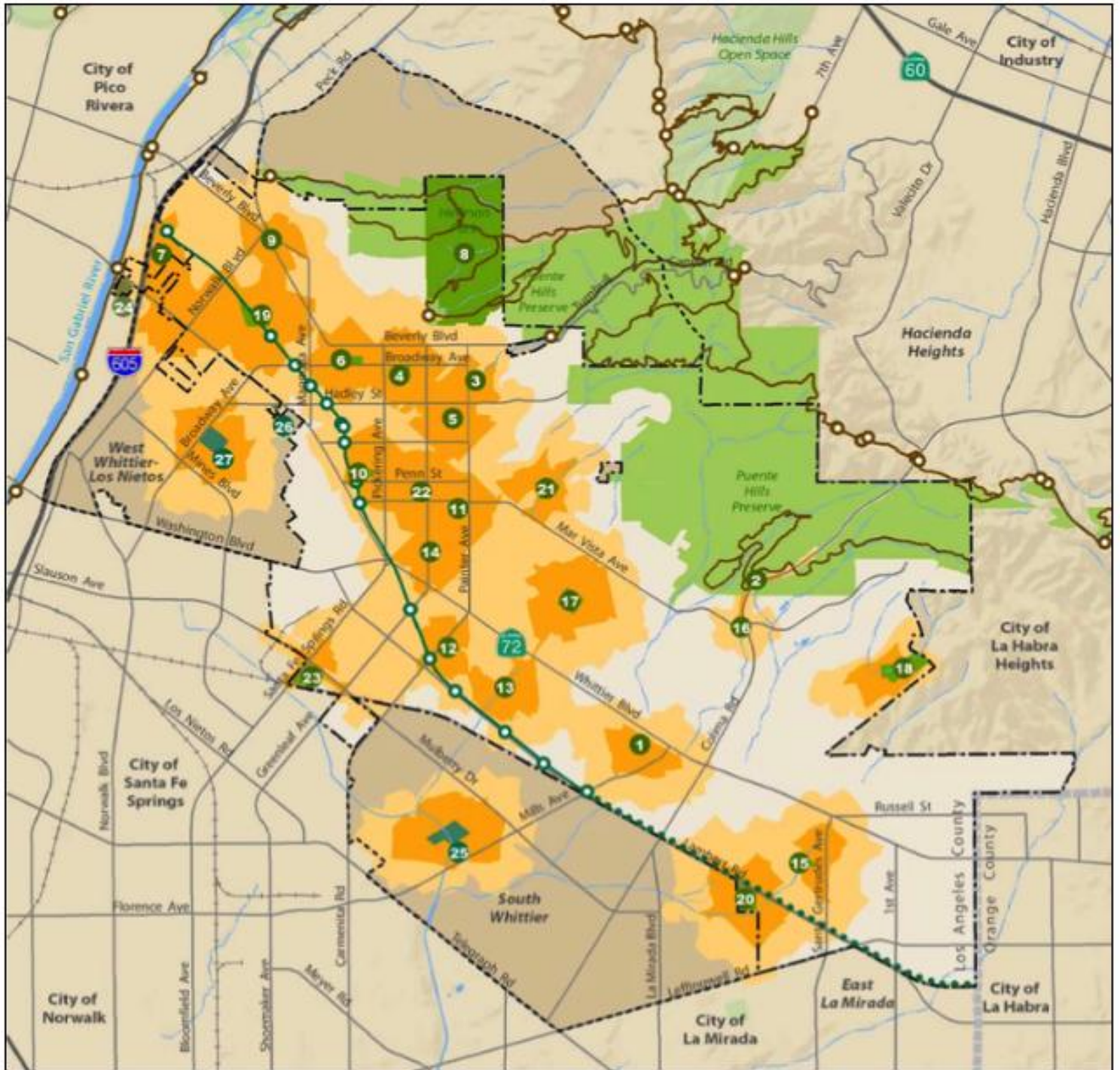
State

Quimby Act (1975)

The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay fees towards parkland. With the anticipated population growth, the City will use impact fees from development projects to fund park construction. The City has adopted an ordinance implementing the provisions of the Quimby Act (Whittier Municipal Code 17.16.040 - Formula for dedication of land).

State Public Park Preservation Act (California Public Resource Code Section 5400 – 5409)

The State Public Park Preservation Act is the primary instrument for protecting and preserving parkland in California. Under the Act, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This ensures a no-net-loss of parkland and facilities.



Parks and Recreation Facilities

- Whittier Parks
- Los Angeles County Parks
- Pico Pico State Historic Park

Park Service Areas to Neighborhoods

- Within 1/4-Mile Walking Distance
- Within 1/2-Mile Walking Distance

Open Space

- Puente Hills Habitat Authority
- Open Space/Natural Areas

Trails

- Greenway Trail
- Greenway Trail Extension
- Greenway Trail Access Points
- Other Trails
- Other Trail Access Points/Trailheads



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies

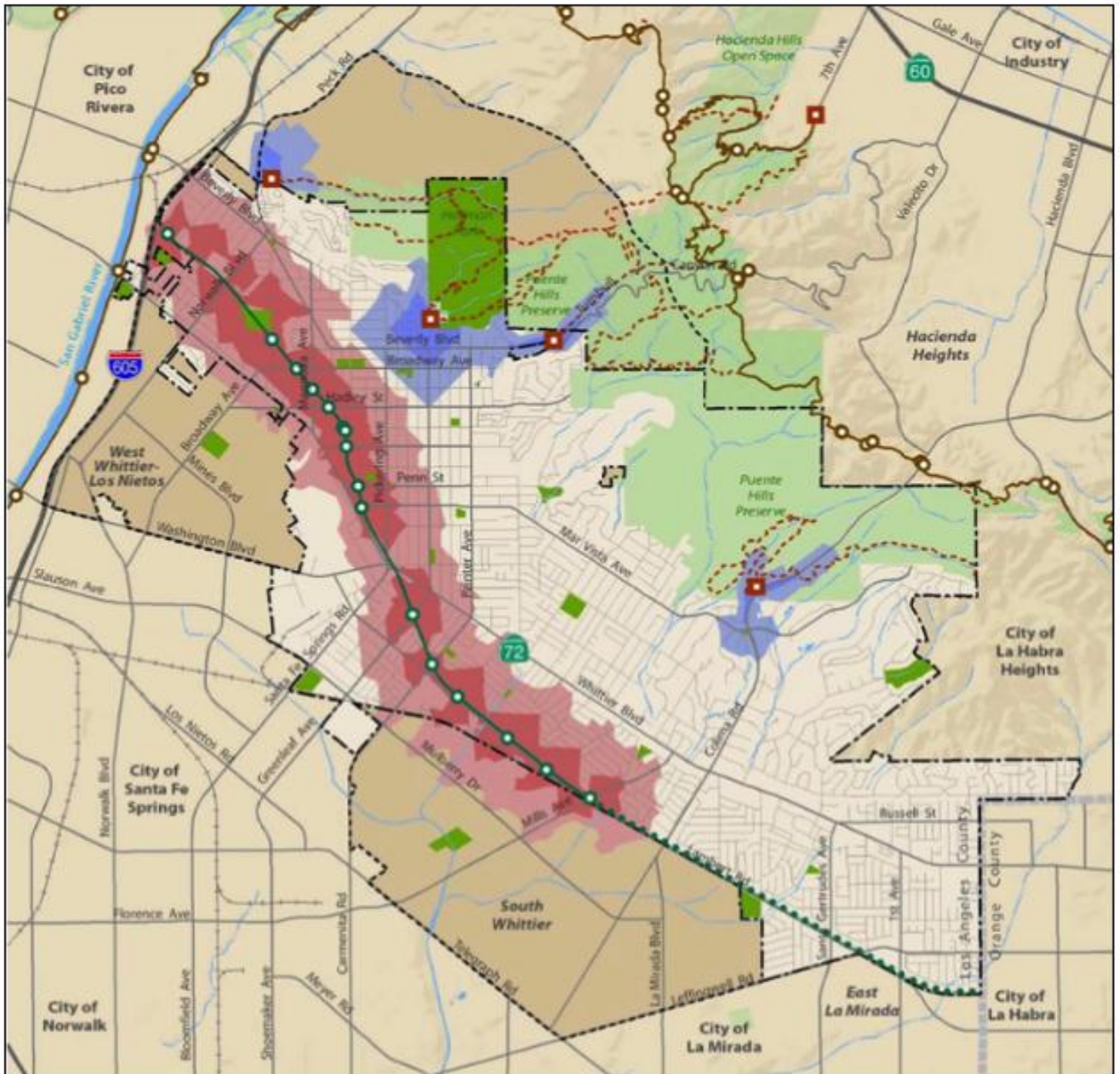
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Exhibit 4.16-1 Recreational Facilities and Access

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Whittier, California

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Trails

- Greenway Trail
- Greenway Trail Extension
- Greenway Trail Access Points
- Other Trails
- Trailheads
- County Trails
- County Trail Access Points

Greenway Trail Service Areas

- Within 1/4-Mile Walking Distance
- Within 1/2-Mile Walking Distance

Trailhead Service Areas

- Within 1/4-Mile Walking Distance
- Within 1/2-Mile Walking Distance

Parks and Open Space

- Whittier Parks
- Open Space/Natural Areas



Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies

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Exhibit 4.16-2 Trails, Greenways, & Open Space

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Whittier, California



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Local

City of Whittier General Plan

The Whittier 1993 General Plan includes the following goals and policies regarding parks and recreation:

Land Use Element

Goal 5 Provide a wide range of safe, attractive and accessible recreational opportunities to meet the needs of individuals of all ages, families, community groups, and the physically challenged who live in the City.

Policy 5.1 Develop and retain parks and recreation areas throughout the City to serve the greatest number of residents.

Policy 5.2 Acquire appropriate sites for recreational activities and land for urban or wilderness parks when possible.

Policy 5.3 Develop parks and recreational facilities to complement and support other community facilities.

Policy 5.4 Develop park facilities in areas where there are identified deficiencies.

Policy 5.5 Avoid the destruction of an existing park, unless another park of larger size is created in the immediate vicinity.

Goal 6 Encourage the retention and development of parkways, median strips, green belts, bike trails, and other open landscape areas, which provide scenic variety and aesthetic improvement.

Policy 6.1 Promote the retention and development of landscaped buffer zones along major thoroughfares, streets, and railroad lines.

Policy 6.2 Promote the maintenance and development of sidewalks and planted parkways along Whittier's streets and promote the planting and maintenance of parkway trees.

Policy 6.3 Promote the conversion of both active and abandoned railroad right-of-way to multi-use trails, greenbelts, and other recreation open space uses, where appropriate.

Policy 6.4 Promote the preservation of important ecological resources within the planning area through a variety of means, including setting aside areas for open space, trails, and recreational uses.

Policy 6.5 Work with property owners and government agencies to promote the preservation of as much of the Puente Hills as possible, for both passive and active recreation.

Transportation Element

Goal 4 Encourage the creation of a multi-use trails network in the City.

Policy 4.1 Pursue the acquisition of linear park space along existing railroad rights-of-way for use as bicycle paths, walking paths, and equestrian trails.

Environmental Resource Management Element

Goal 4 Preservation of open space land for resource retention and recreational use will be a priority in future planning.

4.16 – Recreation

Policy 4.1 The City should encourage the dedication of open space land for public use whenever possible.

Policy 4.2 Retain existing open space in public ownership, wherever possible, including surplus land within the City limits offered for sale by other public agencies.

Policy 4.3 Encourage the retention of privately-owned outdoor recreation uses and consider the public acquisition of such land when the open space uses located, thereon, may be discontinued by the owners.

Policy 4.4 Actively pursue acquisition of open space areas not only to provide areas for traditional recreation activities, but also to preserve ecological features which are valuable for their scientific, educational, scenic, and cultural values.

Policy 4.5 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, with the consent of the owners and other appropriate agencies.

Policy 4.6 Make every effort to locate possible sources of funds for the acquisition of open space, including, but not limited to, Federal funds, State funds, County funds, Proposition A (Safe Neighborhoods & Parks Act of 1992), and funds from private sources.

Policy 4.7 Work toward the acquisition and dedication of open space land in the unincorporated county areas for purposes of expanding the Hellman Wilderness Park.

Goal 5 Provide a sufficient range of recreation opportunities to meet the needs of residents of all ages and interests in the community.

Policy 5.1 Identify the needs and possible locations for special use facilities such as trails, swimming pools, multi-use sports fields, walking trails, bicycle and equestrian trails in the City.

Policy 5.2 Encourage cooperation between all user groups and agencies involved with parks and recreation, with special emphasis on the coordination of parks and school programs and facilities.

Policy 5.3 Integrate recreation planning efforts to consider conservation, open space, and scenic highway areas and programs designed to conserve these resources.

Policy 5.4 Identify all land under public and private ownership used for recreation within the Whittier planning area in order to determine the availability of such lands for park and recreation purposes

Policy 5.5 Develop a system of continuous cross town bicycle, equestrian, and hiking trails which will encourage the use and enjoyment of public open space in the City and the surrounding area.

Policy 5.6 Cooperate with the County of Los Angeles in the establishment and acquisition of open space and park land, including but not limited to, greenbelts, trails, and wilderness-type reservations.

Policy 5.7 Update the survey of parks and recreational facilities in the City to assess the current effectiveness of parks and recreation programs, as well as the needs and interests of Whittier residents, and update the City's Master Plan for Parks and Recreational Facilities.

Policy 5.8 Translate recreational needs into space requirements in order to determine optimum standards for park development.

Policy 5.9 Promote access to the physically challenged within existing and future parks.

Policy 5.10 Coordinate the use of parkland with other community concerns, such as air quality, traffic circulation, and safety.

Policy 5.11 Encourage the use of parks by promoting a wide range of uses and activities for equestrians, hikers, children, joggers, cyclists, etc.

Policy 5.12 Encourage joint use/maintenance agreements with school districts to provide athletic fields and gymnasiums for the use of all persons in the community.

Policy 5.13 Encourage the landscaping of railroad rights-of-way and major arterials to serve as buffers from adjacent uses.

Policy 5.14 Wherever feasible, provide recreational improvements in conjunction with existing facilities that have other primary purposes, such as flood control or abandoned railroad rights-of-way.

Policy 5.15 Encourage the preservation of privately-owned residential open space (e.g. common areas within residential projects).

Policy 5.16 Support the implementation of the Whittier Hills Park Plan.

Local School Districts

The City maintains agreements with local school districts for certain recreation uses and facilities within Whittier. This arrangement expands the supply of specialized park space and benefits local youth. The City is committed to the joint agreement involving maintenance, scheduling, safety and liability. The Planning Area is served by five elementary school districts and two high school districts.

4.16.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to recreation if it would:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

4.16.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to increases in the use of existing recreational facilities and the potential impacts from construction of recreational facilities.

Local and Regional Recreational Facilities

Impact REC-1 – Would the GPU increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Analysis of Impacts

The residents, employees, and visitors of the Planning Area will use nearby parks and recreation facilities. As shown in Table 4.16-1, city-owned and operated parks constitute 443.5

acres of parkland. With a population of 87,690 residents, the City provides 5.05 acres of parkland per 1,000 residents. Los Angeles County and State parks provide an additional 32.4 acres of parkland, for an overall total of 475.82 acres. Factoring in the additional 55,500 residents within Whittier's Sphere of Influence, there are 3.32 acres of parkland per 1,000 residents in the Planning Area. The acreage goal identified for local parks in the Whittier Municipal Code is 4.8 acres per 1,000 residents. The proposed GPU has a projected build-out population of 161,291 persons (an increase of approximately 20,190 persons over existing conditions) which corresponds to a greater demand for recreational facilities in the Planning Area. Using the acreage goals for local parks and regional park facilities, implementation of the proposed GPU would generate a new overall acreage target of 541 acres (an increase of 96 acres over existing conditions).

2021 General Plan Update. Both the Public Safety, Noise, and Health Element and Resource Management Element of the proposed GPU contain goals and policies that would ensure sufficient access to parks and recreation facilities. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 9: Residential neighborhoods not burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles.

Policies

PSHN-9.13: Assess existing parks and gathering spaces around Uptown and within Disadvantaged Communities to ensure parks amenities are tailored to meet the evolving needs of the community, as well being responsive to unique cultural, historic, social, and demographic needs.

PSHN-9.14: Expand park and recreation opportunities in all neighborhoods, especially within Disadvantaged Communities, and ensure that opportunities are offered within comfortable walking distance of homes, schools, and businesses to encourage more physically and socially active lifestyles.

PSHN-9.15: Deter criminal activity in neighborhoods, streets, and public areas through the design and monitoring of play areas, parks, greenway trails, plazas, and urban pocket parks.

PSHN-9.17: Expand the potential of community garden and urban farm sites on public properties, including parks, public easements, rights-of-way, and schoolyards.

PSHN-9.31: Encourage the provision of recreational activities for all people, consistent with the changing demographic composition of Whittier.

PSHN-9.32: Expand health and exercise stations within parks, trails, public right-of-way, and other public spaces.

PSHN-9.33: Partner with community organizations and local businesses to pursue funding opportunities to expand recreational facilities and programming to increase physical activity.

PSHN-9.34: Consider unique neighborhood needs in developing facilities and programs for indoor and outdoor activities within Disadvantaged Communities.

Resources Management Element

Goal 9: Create a superior system of parks, recreation facilities, amenities, green spaces, and open spaces accessible to all Whittier residents.

Policies

RM-9.1: Provide a system of park, recreation facilities, and green spaces that allows any resident to access those facilities via an easy 10-minute walk or bike ride.

RM-9.2: Provide pedestrian, bicycle, and transit connections to new and existing parks and recreation facilities to enhance use and access.

RM-9.3: Use creative or nontraditional methods to create additional park, recreation, and green spaces.

RM-9.4: Promote preservation of open spaces that provide native habitats that support wildlife diversity.

RM-9.5: Collaborate with the County of Los Angeles, Southern California Association of Governments, Puente Hills Habitat Conservation Authority, neighboring cities and communities, and wildlife agencies to improve open space planning and implementation of the resource management policies and promote wildlife conservation within the City and its sphere of influence.

RM-9.6: Partner with wildlife and conservation agencies, including the Puente Hills Habitat Preservation Authority, to identify funding sources and areas within the Puente Hills for: (1) preservation of open space to support wildlife in perpetuity, (2) innovative conservation projects that allow for preservation of open space balanced with recreational land uses, and (3) promoting sustainable design and land development.

RM-9.7: Support implementation of the Whittier Hills Park Plan.

RM-9.8: Dedicate as much of the planning area as feasible between Workman Mill Road and La Habra Heights within the Puente Hills to preservation as permanent open space.

Goal 10: Provide residents of all ages, cultures, and incomes with a range of recreation opportunities to meet multigenerational, environmental, and recreation interests.

Policies

RM-10.1: Improve existing and build new park spaces and recreation facilities responding to the community's changing demographics and needs.

RM-10.2: Enhance park aesthetics, lighting, and design to provide safe and environmentally responsible park and recreation spaces.

RM-10.3: Provide distinctive parks and recreation facilities that support places for social interaction, neighborhood/community identity, beauty, and livability through unique cultural, historic, and environmental features such as artwork, historic buildings, heritage trees, etc.

RM-10.4: Acquire properties for open space that will provide values that support scientific, educational, scenic, and cultural values while also maintaining wildlife habitat and ecosystem services.

RM-10.5: Support the efforts of Los Angeles County entities to procure unincorporated lands adjacent to Hellman Park for open space expansion of the park and for preservation purposes in partnership with the Puente Hills Habitat Conservation Authority.

Implementation of the proposed General Plan Update would not significantly decrease the existing park ratio of 3.32 acres per thousand residents. All new dwelling units developed under the proposed GPU would be subject to Development Impact Fees (DIF) fees and the City's Quimby Ordinance, requiring dedication of in-lieu fees equivalent to 4 and eight-tenths acres of parkland per 1,000 persons. These parks and recreation funding mechanisms will offset the incremental increase in demand for park facilities from implementation of the GPU. All future developments within the Planning Area would be required to pay DIF and/or Quimby fees. For the above reasons, impacts to existing recreational facilities would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Expansion of Recreational Facilities

Impact REC-2 – Does the GPU include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Analysis of Impacts

Both the Public Safety, Noise, and Health Element and Resource Management Element of the proposed GPU contain goals and policies that would address new recreational facilities and potential impacts from their construction. Provided below are the applicable goals and policies of the GPU relative to expansion of park facilities - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 9: Residential neighborhoods not burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles.

Policies

PSHN-9.13: Assess existing parks and gathering spaces around Uptown and within Disadvantaged Communities to ensure parks amenities are tailored to meet the evolving needs of the community, as well being responsive to unique cultural, historic, social, and demographic needs.

PSHN-9.14: Expand park and recreation opportunities in all neighborhoods, especially within Disadvantaged Communities, and ensure that opportunities are offered within comfortable walking distance of homes, schools, and businesses to encourage more physically and socially active lifestyles.

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PSHN-9.31: Encourage the provision of recreational activities for all people, consistent with the changing demographic composition of Whittier.

PSHN-9.32: Expand health and exercise stations within parks, trails, public right-of-way, and other public spaces.

PSHN-9.33: Partner with community organizations and local businesses to pursue funding opportunities to expand recreational facilities and programming to increase physical activity.

PSHN-9.34: Consider unique neighborhood needs in developing facilities and programs for indoor and outdoor activities within Disadvantaged Communities

Resources Management Element

Goal 9: Create a superior system of parks, recreation facilities, amenities, green spaces, and open spaces accessible to all Whittier residents.

Policies

RM-9.1: Provide a system of park, recreation facilities, and green spaces that allows any resident to access those facilities via an easy 10-minute walk or bike ride.

RM-9.2: Provide pedestrian, bicycle, and transit connections to new and existing parks and recreation facilities to enhance use and access.

RM-9.3: Use creative or nontraditional methods to create additional park, recreation, and green spaces.

RM-9.4: Promote preservation of open spaces that provide native habitats that support wildlife diversity.

RM-9.5: Collaborate with the County of Los Angeles, Southern California Association of Governments, Puente Hills Habitat Conservation Authority, neighboring cities and communities, and wildlife agencies to improve open space planning and implementation of the resource management policies and promote wildlife conservation within the City and its sphere of influence.

RM-9.6: Partner with wildlife and conservation agencies, including the Puente Hills Habitat Preservation Authority, to identify funding sources and areas within the Puente Hills for: (1) preservation of open space to support wildlife in perpetuity, (2) innovative conservation projects that allow for preservation of open space balanced with recreational land uses, and (3) promoting sustainable design and land development.

RM-9.7: Support implementation of the Whittier Hills Park Plan.

RM-9.8: Dedicate as much of the planning area as feasible between Workman Mill Road and La Habra Heights within the Puente Hills to preservation as permanent open space.

Goal 10: Provide residents of all ages, cultures, and incomes with a range of recreation opportunities to meet multigenerational, environmental, and recreation interests.

Policies

RM-10.1: Improve existing and build new park spaces and recreation facilities responding to the community's changing demographics and needs.

RM-10.2: Enhance park aesthetics, lighting, and design to provide safe and environmentally responsible park and recreation spaces.

RM-10.3: Provide distinctive parks and recreation facilities that support places for social interaction, neighborhood/community identity, beauty, and livability through unique cultural, historic, and environmental features such as artwork, historic buildings, heritage trees, etc.

RM-10.4: Acquire properties for open space that will provide values that support scientific, educational, scenic, and cultural values while also maintaining wildlife habitat and ecosystem services.

RM-10.5: Support the efforts of Los Angeles County entities to procure unincorporated lands adjacent to Hellman Park for open space expansion of the park and for preservation purposes in partnership with the Puente Hills Habitat Conservation Authority.

Goal 10: Provide residents of all ages, cultures, and incomes with a range of recreation opportunities to meet multi-generational, environmental, and recreation interests.

Policies

RM-10.1: Improve existing and build new park spaces and recreation facilities responding to the community's changing demographics and needs.

RM-10.2: Enhance park aesthetics, lighting, and design to provide safe and environmentally responsible park and recreation spaces.

RM-10.3: Provide distinctive parks and recreation facilities that support places for social interaction, neighborhood/community identity, beauty, and livability through unique cultural, historic, and environmental features.

The proposed GPU includes goals and policies intended to maximize open space. These goals and policies will enhance open space and recreation elements within the Planning Area, but will not have an adverse physical effect on the environment since nearly all of the Planning Area is already developed and within an urbanized area. The Puente Hills Preserve, which is the predominant open space and recreation resource in the Planning Area, would not be physically changed as a result of the proposed GPU and the proposed GPU does not include construction of recreational facilities. All open space/recreation improvements would take place on already developed property and would create little or no additional impacts within other issue areas (e.g., noise, air quality, traffic, etc.).

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact REC-3 – Would the GPU cause substantial adverse cumulative impacts with respect to Recreation?

Analysis of Impacts

Development of residential projects within the Planning Area would generally increase the usage of parks and recreational facilities in the City and surrounding area, potentially causing the need for additional parks and recreational facilities due to related population increases. However, such new development would be subject to DIF fees and the City's Quimby Ordinance. These parks and recreation funding mechanisms will offset the incremental and

cumulative increase in demand for park facilities from implementation of the GPU as well as other residential developments in the vicinity of the Planning Area.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.16.5 REFERENCES

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

National Recreation and Park Association (NRPA, 2021). NRPA Park Metrics. Web: <https://www.nrpa.org/publications-research/ParkMetrics/>.

4.17 – Transportation

This EIR chapter addresses transportation and traffic impacts associated with the proposed General Plan Update (GPU) including whether the GPU will conflict with a program plan, ordinance or policy addressing the circulation system, or whether the GPU will conflict with or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b) regarding VMT¹. In addition, this section will examine whether the GPU will substantially increase hazards due to a geometric design feature or incompatible uses, or whether the GPU will result in inadequate emergency access.

4.17.1 – ENVIRONMENTAL SETTING

The Planning Area includes a mix of residential, commercial, industrial, institutional, and open space uses, and is surrounded by well-established neighborhoods on three sides and the Puente Hills on the fourth. The roadway network within the Planning Area consists of Whittier Boulevard (California State Route 72), minor arterials, collector streets, and local streets. The street network in the Planning Area generally follows a north-south grid pattern in and around the Uptown area. The grid pattern changes to a northwest-southeast orientation in other parts of the Planning Area shaped in part by the Puente Hills. Some neighborhoods in the Planning Area depart from the grid pattern and use a loop and lollipop roadway pattern. Interstate 605 (I-605) traverses the northwestern edge of the Planning Area. Below is a discussion of the existing roadway network in the Planning Area, current transportation planning efforts in the City, and the local public transportation system.

Roadway Network

Arterials and Streets

Major arterials are designed to move large volumes of traffic through the community to other major arterial roadways or freeways. Whittier Boulevard is the only major arterial in the Planning Area and runs northwest to southeast through the middle of the City. Whittier Boulevard provides access to I-605 on the west and connects with the adjacent cities of Montebello, Pico Rivera, and La Habra. Whittier Boulevard provides two travel lanes in each direction with limited street parking. Whittier Boulevard's posted speed limit is 35 to 45 miles per hour. Minor arterials are designed to move traffic from major arterials to secondary streets (Whittier, 2017). Table 4.17-1 (Primary Street Descriptions) describes the primary streets within the Planning Area. Exhibit 4.17-1 (Street Classifications) displays the street classifications and illustrates the roadway pattern in the Planning Area.

Secondary Streets

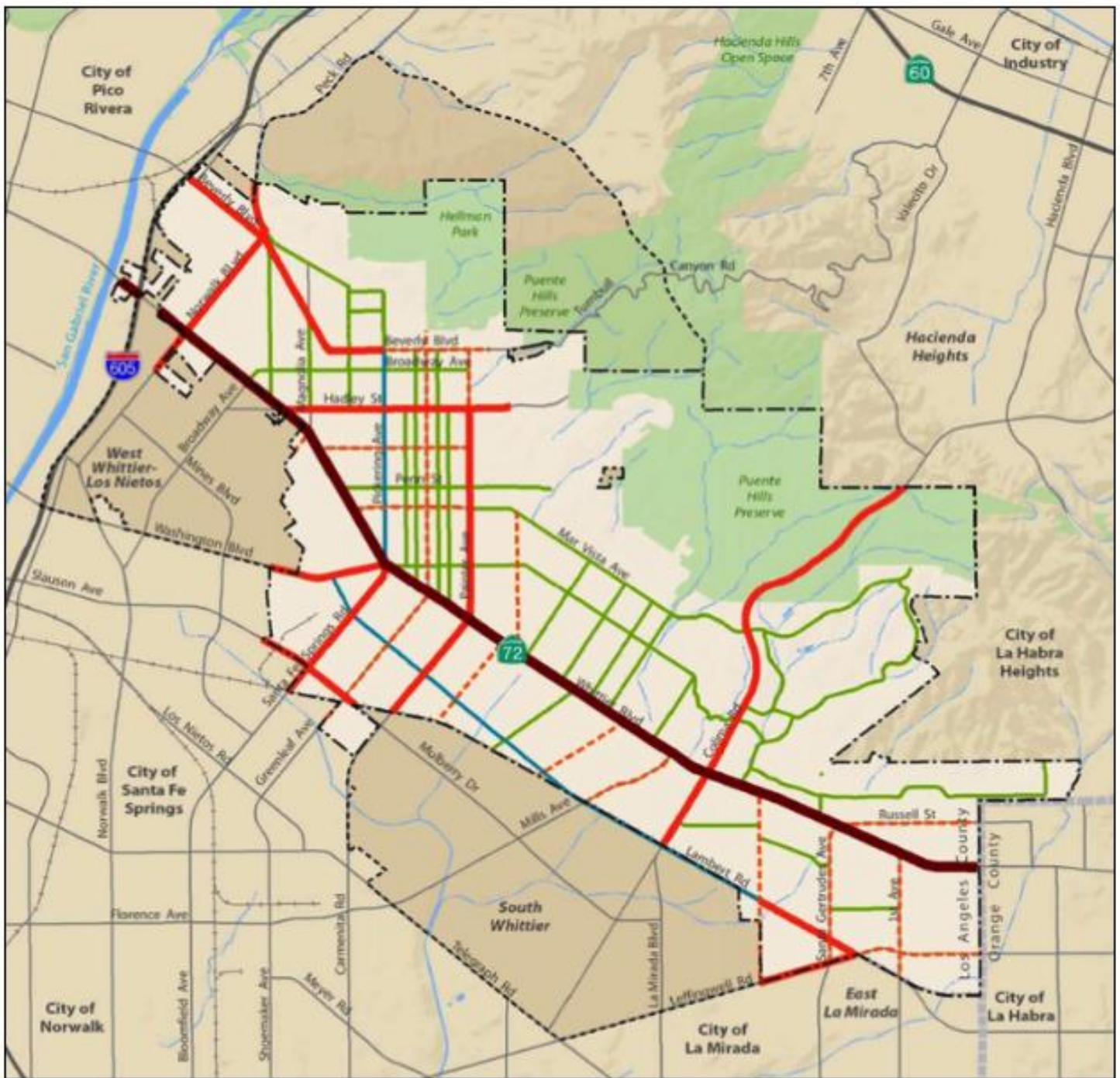
Secondary streets are designed to collect and distribute traffic from major highways and arterials to community destinations. Greenleaf Avenue, Santa Gertrudes Avenue, and Mar Vista Street are secondary streets. Table 4.17-2 (Secondary Street Descriptions) describes the secondary streets within the Planning Area.

¹ VMT = Vehicle Miles Traveled as opposed to the historical Level of Service (LOS) methodology

**Table 4.17-1
Primary Street Descriptions**

Street Name	Connections/Description	Classification, Number of Lanes, Bike Facility	Parking	Speed
Beverly Boulevard/ Turnbull Canyon Road	Northwest of Hoover Avenue, Beverly Boulevard runs roughly parallel to Whittier Boulevard, provides access to I-605 and Pico Rivera to the northwest. East of Hoover Avenue, Beverly Boulevard runs east-west and eventually turns into Turnbull Canyon Road.	Minor arterial; secondary street east of Pickering Avenue. Two travel lanes in each direction.	On-street parking permitted in some situations.	30-40 mph
Norwalk Boulevard	Runs southwest-northeast and intersects both Whittier Boulevard and Beverly Boulevard. After its intersection with Beverly Boulevard, Norwalk Boulevard becomes Workman Mill Road and exits the Planning Area. Southwest of the Planning Area, Norwalk Boulevard connects with the industrial area of Santa Fe Springs.	Minor arterial. Two travel lanes in each direction.	On-street parking permitted on some segments.	40 mph
Santa Fe Springs Road	Runs southwest-northeast, parallel to Norwalk Boulevard, and intersects Whittier Boulevard at the Five Points intersection. Connects Planning Area to the industrial area of Santa Fe Springs. After Five Points intersection, Santa Fe Springs Road extends north as Pickering Avenue.	Minor arterial. Two travel lanes. Class II bicycle lane in each direction.	On-street parking on both sides of the street.	40 mph
Painter Avenue (south of Hadley Street)	Eastern edge of Uptown Whittier. South of Whittier, Painter Avenue is called Carmenita Road. South of Whittier Boulevard, Painter Avenue runs southwest-northeast, parallel to Santa Fe Springs Road and Norwalk Boulevard. North of Whittier Boulevard, Painter Avenue becomes a north-south arterial.	Minor arterial. Two travel lanes in each direction.	On-street parking in residential areas.	40 mph south of Whittier Boulevard. 35 mph north of Whittier Boulevard
Painter Avenue (north of Hadley Street)	Painter Avenue runs north-south and dead ends in the Puente Hills.	Minor arterial. One travel lane in each direction.	On-street parking in residential areas.	25 mph
Colima Avenue	Runs southwest-northeast. Colima Avenue extends from Whittier into Hacienda Heights. Colima Avenue is one of the few connections that cross the Puente Hills.	Minor arterial. Two travel lanes in each direction. Class II bicycle lane in each direction.	On-street parking on both sides of the street.	40-50 mph
Lambert Road	Runs southeast-northwest, parallel to Whittier Boulevard. Lambert Road begins at Washington Boulevard and extends along the southern border of the Planning Area into La Habra.	Minor arterial. Two travel lanes in each direction. Center two-way left-turn lane between Santa Fe Springs Road and Laurel Avenue and again between Calmada Avenue and Mills Avenue for limited segments.	On-street parking on the east side of the street between Washington Boulevard and Hydro Drive.	40-45 mph

Source: Envision Whittier Existing Conditions Atlas, 2017.



Street Classification

- Major Arterial
- Minor Arterial
- Secondary Street
- Secondary Street - Augmented
- Collector Street

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Open Space/Natural Areas



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**Table 4.17-2
Secondary Street Descriptions**

Street Name	Connections/Description	Lanes	Bicycle Lanes	Parking
Greenleaf Avenue	Runs southwest-northeast south of Whittier Boulevard. Becomes a north-south road north of Whittier Boulevard.	One lane of travel in each direction. Center two-way left-turn lane south of Penn Street and Between Hadley Street and Beverly Boulevard.	Class II bicycle lane in each direction south of Penn Street and between Hadley Street and Orange Drive.	Parallel on-street parking on both sides of the street, except between Mar Vista Street and Hadley Street. In Uptown, on-street parking is diagonal.
Santa Gertrudes Avenue	North-south street. Enters the Planning Area from La Mirada and terminates at Whittier Boulevard adjacent to the Whittwood Town Center.	Two travel lanes in each direction.	Class II bicycle lanes in each direction between Lambert Road and Starbuck Street.	On-street parking is permitted on a few segments of the street, where there are no bicycle lanes.
Mar Vista Avenue	West of Painter Avenue, Mar Vista Street is a secondary street. Mar Vista is a collector east of Painter Avenue. Mar Vista Street runs east-west from Whittier Boulevard to College Avenue. At College Avenue, Mar Vista Street runs northwest-southeast, until San Lucas Drive, where it again runs east-west. Mar Vista Street terminates in the Friendly Hills Neighborhood. Planted medians surrounded by stamped and painted pavement (traffic calming) are between La Sierra Avenue and York Avenue.	Where Mar Vista Street is a secondary street, two travel lanes in each direction with a center two-way left turn lane. Where Mar Vista Street is a collector street, one travel lane in each direction.	Class II bicycle lanes in each direction between Whittier Boulevard and Painter Avenue, and again between Colima Road and Cerquita Drive.	On-street parking is provided for a limited segment between Painter Avenue and Valley View Avenue, and between Vale Drive and Catalina Avenue.

Source: Envision Whittier Existing Conditions Atlas, 2017.

Collector Streets

Collector streets are designed to move traffic from local streets to secondary major arterials. Janine Drive, La Cuarta Street, and Washington Street are classified as collector streets.

Local Streets

Local streets provide access to individual parcels and generally provide one travel lane in each direction, with on-street parking permitted on both sides of the street.

Planned Roadway Network Improvements

Table 4.17-3 (Planned Transportation Improvements) describes planned transportation improvements including signals, sidewalks, Americans with Disabilities Act (ADA) compliant ramps, bike lanes, sharrow² paving, and guard rails.

² Sharrows are white pavement markings showing a bicycle symbol with two chevrons on top (MUTCD). Some mistake these lanes for dedicated bicycle lanes, but a bicycle lane is marked with a bicycle symbol and sometimes an additional diamond symbol. The diamond symbol indicates that it is a reserved lane.

**Table 4.17-3
Planned Transportation Improvements**

Improvement	Location	Source
Install LED countdown pedestrian heads, accessible Pedestrian signals with ADA-compliant push buttons.	40 Signalized Intersections	Highway Safety Improvement Program Cycle 8 – Caltrans Local Assistance.
Construct new sidewalks and ADA-compliant wheelchair access ramps. Install new centerline striping, Class II bike lanes, raised pavement marking, and signing.	La Serna Drive between Whittier Boulevard and Youngwood Drive adjacent to La Serna High School.	Highway Safety Improvement Program Cycle 8 – Caltrans Local Assistance.
Upgrade guard rails.	22 locations	Highway Safety Improvement Program Cycle 8 – Caltrans Local Assistance.
Traffic Safety Improvements	Beverly Boulevard	Federal Aid Program
Construction of Class I Bike and Pedestrian Trail	Union Pacific Railroad Right-of-Way adjacent to Lambert Road from Mills Avenue to eastern limits of the Planning Area.	Federal Aid Program
Recommendation from Director of Public Works/ City Council to implement a Complete Streets Program.	Citywide	Complete Streets Agenda Report

Source: Envision Whittier Existing Conditions Atlas, 2017.

Traffic Study Results

The comprehensive update of the Whittier General Plan and Housing Element serves as the guide for the City's future growth and development. The General Plan and Housing Element contain goals, policies, and programs that will provide City staff and discretionary bodies with a foundation for decisions for long-range planning related to physical development and public services. Between now and the 2040 planning horizon for the City of Whittier, the Planning Area is estimated to see increases of approximately 423 single family dwellings, 6,447 multi-family dwellings, 656,513 square feet of office space, 145,517 square feet of industrial space, and a reduction of 443,480 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year. This additional development would generate an increase in VMT of 146,067 vehicle miles³ from baseline to cumulative 2040 conditions (see VMT analysis below).

Vehicle Miles Travelled (VMT)

As part of the GPU, a transportation impact analysis was conducted by Fehr & Peers (F&P 2021) to meet the latest CEQA Guidelines requirements for determining traffic impacts. In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018, which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (Section 15064.3). Effective July 1, 2020, the previous CEQA metric of level of service (LOS), typically measured in terms of automobile delay, roadway capacity and congestion, will no longer constitute a significant environmental impact. VMT provides a better alignment between

³ 5,885,614 VMT under cumulative 2040 conditions minus 5,739,547 VMT for baseline conditions (per Table 1, F&P 2021)

transportation impacts under CEQA with State goals to encourage infill development, promote active transportation, and reduce greenhouse gases (GHGs).

In response to SB 743, the City of Whittier is in the process of adopting new transportation impact thresholds to adhere to CEQA requirements and provided guidance on conducting transportation studies in the City. The City has determined that a dual analysis process will be applied for identifying and evaluating potential transportation impacts and necessary roadway improvements associated with new land development and infrastructure projects located within the City. The first analysis will consist of an approach using the metric of vehicle miles traveled (VMT) to identify potential transportation impacts by applying CEQA designated methodologies and thresholds. The second analysis will be a localized approach for non-CEQA analysis conducted primarily to identify potential safety and operational issues when applied against criteria the City has established. Given these evolving changes to practice, the transportation impact analysis for Whittier's General Plan has been analyzed using both VMT and LOS.

Current Transportation Planning Efforts

There are currently four plans in effect within the Planning Area that identify transportation improvements. These plans include the Whittier Boulevard Specific Plan (WBSP), the Whittwood Town Center Specific Plan (WTCSP), the Uptown Whittier Specific Plan (UWSP), and the City of Whittier Bicycle Transportation Plan (Whittier, 2017).

Whittier Boulevard Specific Plan (WBSP)

The WBSP, most recently updated in 2015, aims to revitalize Whittier Boulevard (State Route 72) which is a Caltrans roadway. This corridor is characterized by auto-oriented retail and commercial development and provides an entrance point into the Planning Area at the interchange with I-605. Through implementation of the WBSP, the City seeks to increase transit options along Whittier Boulevard. The Specific Plan explores a multi-modal transit station at the Five Points intersection and/or the Whittier Boulevard/Painter intersection to coordinate access between services offered by the City of Whittier, the Metropolitan Transit Authority (MTA), and Montebello bus lines. It also explores the establishment of a commuter shuttle from activity points in the Planning Area and on the corridor to the Metrolink station at Norwalk Center.

Whittwood Town Center Specific Plan (WTCSP)

The WTCSP, most recently amended in 2012, outlines strategies for the redevelopment of the large retail area on Whittier Boulevard between Scott Avenue and Santa Gertrudes Avenue, called the Whittwood Town Center. The WTCSP works with the Whittier Boulevard Specific Plan to improve the Whittier Boulevard corridor. A key goal of the WTCSP is to create a pedestrian-oriented environment with a mix of uses through design guidelines and development standards. The WTCSP's Circulation Plan describes signage, streetscape landscaping, and internal and external circulation for vehicles and pedestrians.

Uptown Whittier Specific Plan (UWSP)

The UWSP includes a 185-acre area comprised of 35 city blocks. The UWSP centers around a retail and service core. The UWSP's goal is to cultivate this district as a healthy and livable town center with enhanced retail through shared parking, placemaking, design standards (form-based code), improvements to the public realm, and affordable housing. A key principle is pedestrian-orientation through mixed-use, improved pedestrian connectivity, and a park-once strategy.

City of Whittier Bicycle Transportation Plan

The Bicycle Transportation Plan builds on previous planning efforts that spurred development of the Whittier Greenway Trail, a Class I bikeway and pedestrian path. The Bicycle Transportation Plan prioritizes upgrading and creating additional bike facilities connecting on-street bike lanes to the Greenway Trail. Another goal is connecting the northern terminus of the Greenway Trail to another Class I bikeway north of Whittier, the San Gabriel River Trail. The Plan also addresses bicycle parking, safety, and education.

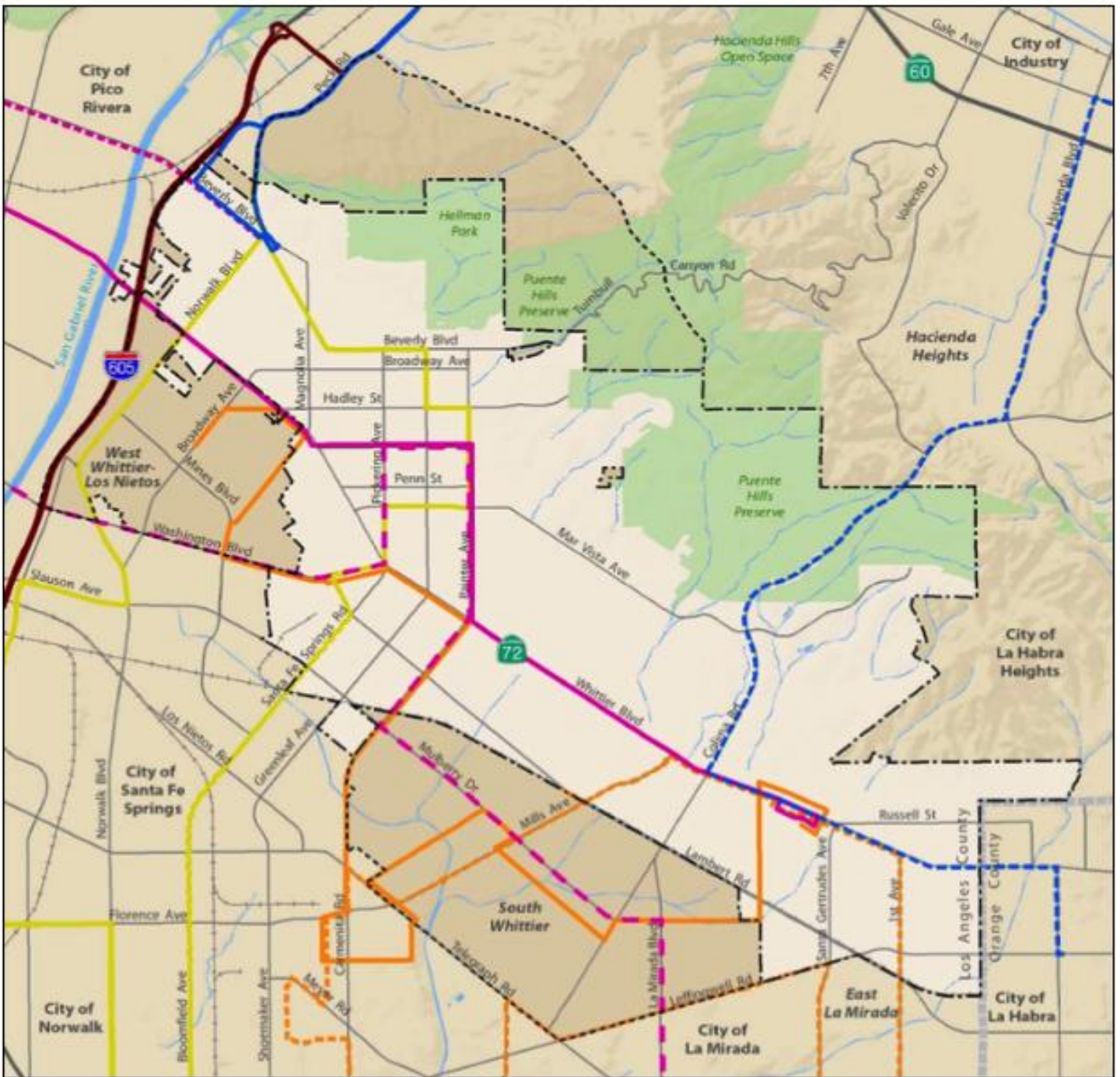
Local Public Transportation System

Bus and Light Rail

Whittier is served by several transit providers: Metro, Norwalk Transit, Foothill Transit, Sunshine Shuttle, and Montebello Bus. Metro and Montebello Bus provide regional connections to Los Angeles International Airport (LAX) and to East Los Angeles and downtown Los Angeles, respectively. Norwalk Transit provides north-south connection between El Monte in the north to Norwalk in the south. Norwalk Transit Route 7 stops at El Monte Station, which is a transfer point for the Metro Silver Line, Foothill Transit, El Monte Transit, and Greyhound Bus. Foothill Transit provides more localized service, with connections from Whittier to Baldwin Park and the City of Industry. Sunshine Shuttle, operated by the Los Angeles County Department of Public Works, provide local service with routes that connect centers within Whittier and Santa Fe Springs. Table 4.17-4 (Bus Transit Lines in the Planning Area) displays operational information for these lines, and the routes are shown in Exhibit 4.17-2 (Transit Routes).

**Table 4.17-4
Bus Transit Lines in the Planning Area**

Line(s)	Origin	Destination	Frequency (min.)
Metro 120	LAX	Whittwood Town Center	40-50 (peak), 60 (off-peak)
Norwalk Transit - Route 1	Rio Hondo College	Bellflower	30 (peak and off-peak)
Norwalk Transit - Route 7	El Monte Station	Norwalk Green Line Station	40-60 (peak and off-peak)
Foothill Transit - 274	Baldwin Park Metro Link	Beverly Blvd./Norwalk Blvd., Whittier	30-60 (peak), 60 (off-peak)
Foothill Transit - 285	Puente Hills Mall, City of Industry	Beach Blvd./La Habra Blvd., La Habra	30 (peak and off-peak)
Sunshine shuttle - Route A	Sorenson Park	Whittwood Town Center	60 (peak and off-peak)
Sunshine Shuttle - Route B	Whittwood Town Center	Whittwood Town Center	60 (peak and off-peak)
Montebello Bus - 10	East LA College, Monterey Park	Whittwood Town Center	10-15 (peak), 15-25 (off-peak)
Montebello Bus - 40	Beverly Blvd./Norwalk Blvd., Whittier	Downtown Los Angeles	10-15 (peak), 15-25 (off-peak)
Montebello Bus - 90	Beverly Blvd./Norwalk Blvd.	Downtown Los Angeles	20-25 (peak only)
Montebello Bus - 50	La Mirada	Downtown Los Angeles	25-35 (peak and off-peak)
Source: Envision Whittier Existing Conditions Atlas, 2017.			



Bus Routes

- Foothill Transit - 274
- - - Foothill Transit - 285
- LA Metro - 120
- Montebello - 10
- - - Montebello - 40 and 9C
- - - Montebello - 50
- Norwalk Transit - 1
- - - Norwalk Transit - 7
- Sunshine Shuttle - A
- - - Sunshine Shuttle - B

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Open Space/Natural Areas



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Exhibit 4.17-2 Transit Routes
Whittier General Plan Update
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In the future, Metro service may extend to Whittier and provide the City with additional transit options. The East Transit Corridor Phase 2 Light Rail Extension (also known as the L-Line/Gold Line Eastside Extension) includes an alternative that would extend the L-Line/Gold Line from its current terminus in East Los Angeles along Washington Boulevard to Whittier. The other alternative is to extend service along State Route 60 (SR-60) to the City of South El Monte. The 2014 Draft Environmental Impact Study/Report included these two alternatives. After the comment period, Metro submitted staff recommendations to Metro's Planning/Programming Committee and the Metro Board of Directors. These bodies approved a motion to undertake a technical study to refine the two alternatives (Whittier, 2017). In February 2020, the Metro Board withdrew the SR-60 and Combined Alternatives from consideration in the environmental process. The Board also directed that a separate feasibility study be completed along the SR-60 corridor, in the San Gabriel Valley, to identify potential mobility solutions and options in the short and long-term. Two stops in the Planning Area average daily ridership over 200: the stops for the Montebello Bus at Norwalk Boulevard/ Beverly Boulevard and the Montebello Bus at the Whittwood Town Center. Other areas with high ridership are Philadelphia Street in Uptown Whittier, PIH Health, Norwalk Boulevard/ Whittier Boulevard, and Painter Avenue/ Mulberry Drive in the Planning Area (Whittier, 2017).

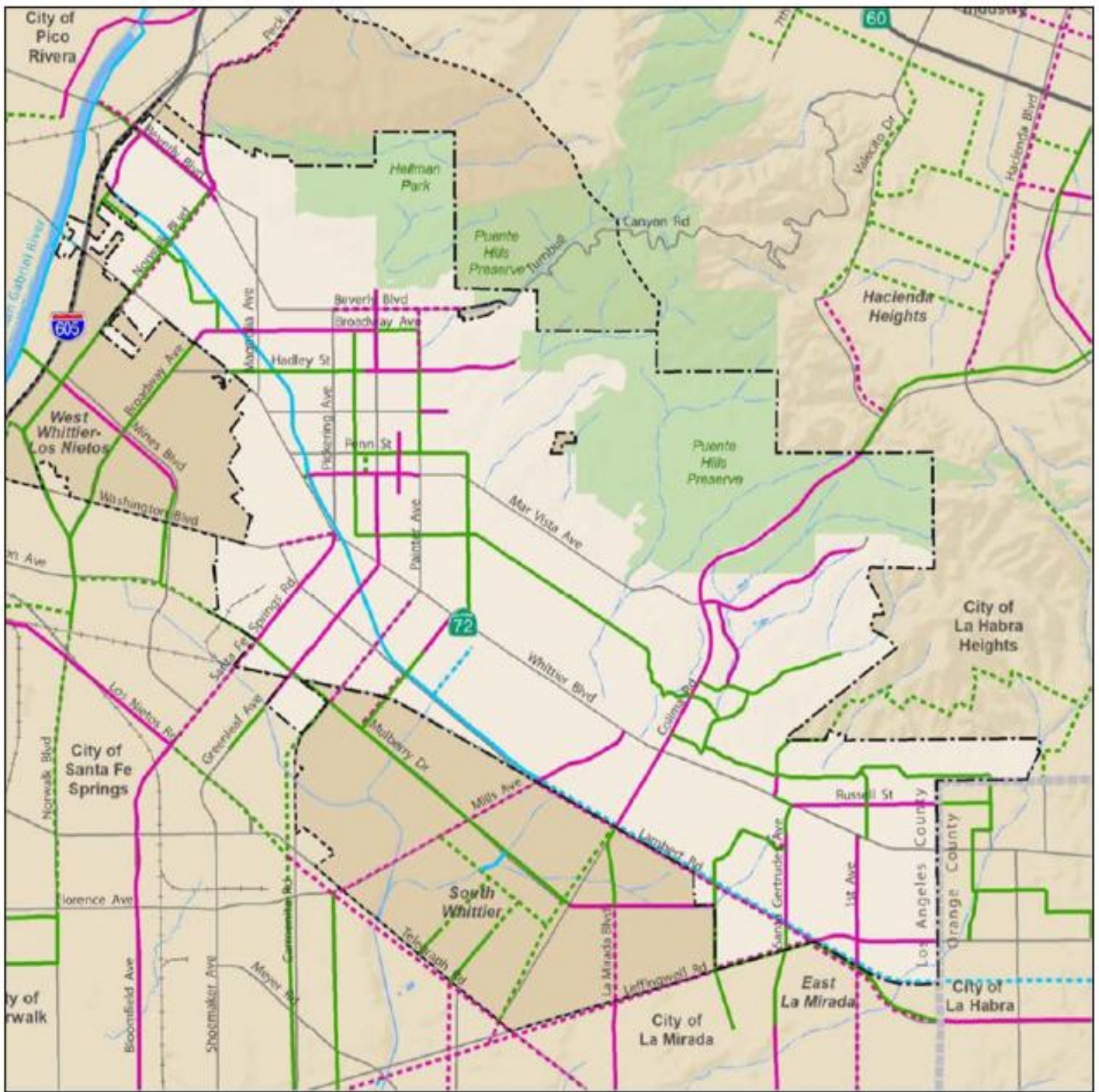
Bicycle System

There is an incomplete bicycle network in the Planning Area with the Whittier Greenway Trail, a Class I Bikeway trail dedicated exclusively for the use of bicyclists as a major backbone of the network. The Trail begins near I-605 and extends 4.5 miles southward to Mills Avenue along an abandoned rail right-of-way. In 2013, the City acquired a 2.8-mile easement along the rail active right-of-way to extend the Trail from Mills Avenue to the eastern limits of the Planning Area. The goal is to link the Whittier Greenway Trail with other regional trails, particularly the Santa Ana River Trail. The Whittier Greenway Trail includes connections to transit, sculptures, and interpretive signs, making it an asset for commuters and recreational cyclists. In the western portion of the Planning Area, another Class I Bikeway, the San Gabriel River Trail, extends from Seal Beach to San Gabriel Canyon Road. In addition to the Whittier Greenway Trail, the Planning Area has approximately 32 miles of Class II bike lanes (on-street lanes dedicated to cyclists) and Class III bike routes (roads designated as shared roadways). These routes connect to the Whittier Greenway Trail and extend outward throughout the Planning Area and include destinations such as Uptown, Whittwood Town Center, La Serna High School, and Friendly Hills Country Club (Whittier, 2017).

Pedestrian Facilities

Pedestrian circulation and access are primarily provided by sidewalks throughout the Planning Area, except in a few neighborhoods. Pedestrian crosswalks are provided at signalized intersections and some unsignalized intersections. The Whittier Greenway Trail, in addition to being a Class I Bikeway, contains a separate pedestrian path, providing another way for pedestrians to travel across the Planning Area (Whittier, 2017). Exhibit 4.17-3 (Bicycle Routes) shows the existing and proposed network of bicycle lanes (Class I, II, and III) within the City and connections to other surrounding jurisdictions.

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Base Map Features

- Whittier City Boundary
- - - Whittier Sphere of Influence
- ||||| County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Open Space/Natural Areas

Bicycle Facilities

- Existing Class I Bike Path
- Existing Class II Bike Path
- Existing Class III Bike Path
- - - Proposed Class I Bike Path
- - - Proposed Class II Bike Path
- - - Proposed Class III Bike Path

Source: Fehr & Peers; 2017 and City of Whittier; 2017.

Prepared by Fehr & Peers, September 2017.



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Exhibit 4.17-3 Bicycle Routes

Whittier General Plan Update

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NOP Comments

A letter from the **California Department of Transportation (Caltrans)** was received on May 14, 2021 that provided information about the issues that should be addressed in the General Plan EIR regarding freeway traffic, vehicle miles traveled, and the relationship between parking and transit. The following sections evaluate the relevant issues as requested by Caltrans. In their letter, Caltrans stated it “does not expect project approval to result in a direct adverse impact to the existing State transportation facilities. However, to accommodate the additional housing units and not induce demand for excessive Vehicle Miles Travelled (VMT), Caltrans recommends significantly reducing or eliminating car parking requirements. Research looking at the relationship between land-use, parking, and transportation indicates that car parking prioritizes driving above all other travel modes and undermines a community’s ability to choose public transit and active modes of transportation. For any community or city to better support all modes of transportation and reduce vehicle miles traveled, we recommend the implementation of an updated TDM ordinance, as an alternative to requiring car parking.”

4.17.2 – REGULATORY FRAMEWORK

Federal

No federal agencies or regulations directly apply to the Project transportation impacts.

State

State of California Department of Transportation (Caltrans)

The State of California Department of Transportation (Caltrans) implements State planning priorities in all plans, programs, and activities. Caltrans has the responsibility to coordinate and consult with local jurisdictions when proposed local land use planning and development may impact State highway facilities. Pursuant to Public Resources Code § 21092.4, for projects of statewide, regional, or area-wide significance, the lead agency must consult with transportation planning agencies and public agencies that have transportation facilities which could be affected by a project.

Senate Bill (SB) 743. On September 27, 2013, Governor Brown signed SB 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under the California Environmental Quality Act (CEQA) process for several categories of development projects including the development of infill projects in transit priority areas and to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. SB 743 adds Chapter 2.7: Modernization of Transportation Analysis for Transit Oriented Infill Projects to the CEQA Statute (Section 21099). Among other things, SB 743 mandates that alternative metric(s) for determining impacts relative to transportation shall be developed to replace the use of LOS in CEQA documents. Currently, environmental review of transportation impacts focuses on the delay that vehicles experience at intersections and on roadway segments, which is often measured using LOS. Pursuant to SB743, the focus of transportation analysis changes from vehicle delay to vehicle miles traveled (VMT). OPR released two rounds of draft proposals for updating the CEQA Guidelines related to evaluating transportation impacts and, after further study and consideration of public comment, submitted a final set of revisions to the Natural Resources Agency in November 2017. This was followed by a rulemaking process that would implement the requirements of the legislation. The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. Under CEQA Guidelines Section 15064.3, statewide application of the new VMT metric was required beginning on July 1, 2020.

Regional

Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) leads the development of the Regional Transportation Plan (RTP), which presents the vision for transportation throughout most of Southern California. Senate Bill 375 (SB 375) was passed to reduce greenhouse gas emissions from both automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Under SB 375, SCAG is tasked with developing a Sustainable Communities Strategy (SCS). The SCS, as a component of the RTP, provides a plan for meeting emissions reduction targets set forth by the California Air Resources Board. The 2016 RTP/SCS identifies priorities for transportation planning within the Southern California region, sets goals and policies, and identifies performance measures for transportation improvements to ensure that future projects are consistent with other planning goals for the region. The Regional Transportation Improvement Plan (RTIP), also prepared by SCAG based on the RTP, lists all of the regional, funded/programmed improvements within the next seven years. In order to qualify for CEQA streamlining benefits under SB 375, a project must be consistent with the RTP/SCS.

Long Range Transportation Plan (LRTP)

The Long-Range Transportation Plan (LRTP), prepared by Metro, is the long range plan that responds to emerging environmental challenges through the provision of new initiatives and recommendations that include driving alternatives, mobility improvements, enhanced public transit, expanded rail, and the development of major corridor projects in Los Angeles County.

Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), prepared by the Southern California Association of Governments (SCAG), has numerous goals to increase mobility for the region's residents and visitors, and an emphasis on sustainability and integrated planning to collectively improve the region's mobility, economy, and sustainability. The RTP/SCS must be approved by Federal agencies in order to receive Federal transportation funds. Only projects and programs included in the RTP are eligible for Federal funding. SCAG adopted the 2016-2040 RTP/SCS in April 2016.

SCAG Regional Comprehensive Plan

The Regional Mobility Plan (RMP) is part of an overall regional planning process that is linked directly to SCAG's Growth Management Plan, the Housing Allocation Process, and the South Coast Air Quality Management District's Air Quality Management Plan. The last RCP was adopted by SCAG in 2008 and includes elements on Land Use and Housing, Open Space and Habitat, Water, Energy, Air Quality, Solid Waste, Transportation, and Security and Emergency Preparedness.

Highway Performance Monitoring System (HPMS)

The Highway Performance Monitoring System (HPMS) is a Federally mandated inventory system and planning tool designed to assess the nation's highway system. HPMS is used as a management tool by the Federal and State governments and local agencies to analyze the system's condition and performance. The HPMS data are used for allocation of Federal funds, identification of travel trends and future forecasts, Environmental Protection Agency air quality conformity tracking, and biennial reports to the United States Congress on the state of the

nation's highways. The HPMS is administered by Caltrans, with technical data provided by local agencies.

Foothill Transit

Foothill Transit, created in 1988, provides bus service to the San Gabriel and Pomona Valleys. The agency contracts out all services – from administration to bus driving and maintenance. The agency is governed by a five-person Executive Board.

Access Services

Access Services is a State-mandated local governmental agency created by Los Angeles County's public transit agencies to administer and manage the delivery of regional American with Disabilities Act (ADA) paratransit service. Access Services was established by 44 public fixed route transit operators in Los Angeles County. It is governed by a nine-member board appointed by the Los Angeles County municipal fixed route operators, the City of Los Angeles, the County of Los Angeles, the Transportation Corridor Representatives of the Los Angeles branch of the League of Cities, the Los Angeles County Commission on Disabilities, and the Coalition of Independent Living Centers.

Local

City of Whittier General Plan

The Transportation Element of the existing 1993 General Plan is a comprehensive plan for vehicular and non-vehicular circulation and transportation within the City and the Planning Area. The Circulation Element (for Whittier, it is the Transportation Element) of the General Plan is required by Government Code Section No. 65302(b), which dictates that: ...the General Plan shall have a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other public local utilities and facilities, all correlated with the land use element of the General Plan. The City's Transportation Elements' Master Plan of Arterial Highways (MPAH) identifies the necessity of providing added capacity on several existing major roadways in Whittier. According to the MPAH, the expansion of Whittier Boulevard from a four-lane to six-lane major arterial road is the only planned project in the Planning Area.

Transportation Element

Goal 1: Provide a comprehensive transportation system for the movement of persons and goods with maximum efficiency and convenience, and with a minimum of danger, delay, and cost.

Policy 1.1: Eliminate or reduce congestion at critical locations within the City.

Policy 1.2: Emphasize traffic solutions that are both innovative and creative, without involving road widening projects if possible.

Goal 2: Provide a public road system which will move private automobiles within the City safely, efficiently, and with minimum impact on residential neighborhoods.

Policy 2.1: Encourage the routing of through traffic to designated arterial streets and (discourage through traffic in residential neighborhoods by employment of traffic engineering practices that are sensitive to adjacent land uses.

Policy 2.2: Designate through truck routes for the use of commercial and industrial traffic.

Policy 2.3: Provide adequate, clean, safe, and accessible off-street parking areas throughout the City.

Policy 2.4: Review current on-street parking requirements to ensure they are sensitive to safety, air quality planning, and other issues.

Policy 2.5: Establish right-of-way easements for future street widening, only where absolutely required, to improve traffic flow and to support existing and future land uses, keeping in mind other policies that focus on non-engineering solutions.

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 2.7: Investigate methods to reduce traffic speed and volume on residential streets.

Policy 2.8: The Uptown Specific Plan will continue to be implemented, as it relates to circulation and parking in the Uptown area.

Goal 3: Encourage the development of a comprehensive public transportation system and alternative modes of transit.

Policy 3.1: Encourage the utilization of Dial-a-Ride, light rail transit, carpools, Whittier Transit, RTD buses, park-and-ride, and other mass transit systems through publicity programs and cost subsidies.

Policy 3.2: Promote the use of alternative forms of transportation (other than single passenger cars) to reduce congestion, traffic, noise, and air quality impacts.

Policy 3.3: Promote the use of carpools, whenever possible.

Policy 3.4: Provide pollution-free and congestion-reducing bicycle, jogging, walking, handicapped-accessible pathways, and lanes which link major destination centers within the City. (Link homes, stores, parks, schools in a network).

Policy 3.5: Promote bicycle use by establishing secure and adequate areas for the parking and storage of bicycles, showers, lockers, and other facilities.

Policy 3.6: Encourage and support the development of a rail transit system through the City which may utilize existing railroad rights-of-way and the Whittier Depot as a transportation center.

Policy 3.7: Continue the local bus system to provide rapid, convenient transportation within the City and connections with the regional bus system.

Goal 6: Consider environmental and socio-economic impacts, along with the circulation benefits, of street extensions and widening projects.

Policy 6.2: Road widening and extension projects shall be evaluated for the disturbance to existing developments, the potential loss of affordable housing and the displacement of residents, and the economic impacts on abutting businesses and land uses.

4.17.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the Duke realty warehouse project would have a significant impact related to transportation and traffic if it would:

- a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Would the project conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- d) Result in inadequate emergency access; or

4.17.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to transportation and traffic, which could result from the implementation of the GPU and recommends mitigation measures if needed to reduce significant impacts.

Existing Circulation System Plans, Ordinances, or Policies

Impact TRANS-1 – Would the project conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Analysis of Impacts

The CEQA thresholds of significance for transportation and traffic impacts have shifted in recent years. In the past the analysis focused on the Level of Service (LOS) which measured congestion at local intersections and roadway segments. The emphasis of these past studies was to assure the street grid network functioned well and allowed for efficient movement of vehicles. The current focus is to encourage active transportation (e.g., pedestrians, bicyclists, etc.) and transit, and to limit increases in Vehicle Miles Travelled (VMT, see also Impact TRANS-2 below). An important part of this analysis is to determine if a proposed project or programmatic action is consistent with the Transportation Element of the General Plan.

Goal 3 of the existing General Plan Transportation Element states “Encourage the development of a comprehensive public transportation system and alternative modes of transit.” Emphasizing non-vehicular transportation are also key elements of SB 375 and SCAG’s Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). Non-vehicular transportation includes pedestrians (sidewalks, trails), bicycles (on-road lanes or off-road paths), bus transit, and train transit.

Pedestrian (sidewalks and trails). Sidewalks are generally available on all major roadways within the City, especially within the downtown area and connecting to commercial areas. The General Plan envisions sidewalks will eventually be provided on all roadways where they are not presently exist as development of new uses or redevelopment of existing uses occurs. The Whittier Greenway Trail, in addition to being a Class I Bikeway, contains a separate pedestrian path, providing another way for pedestrians to travel across the Planning Area. The Whittier Greenway Trail is located adjacent to Lambert Road near the southwestern City boundary then generally follows the eastern boundary of the City.

Bicycles. Bicycle lanes are classified as follows:

Class I – separate off-road bikeway or path dedicated exclusively for bicycles and pedestrians;

Class II – on-road lane or route within the right-of-way with a painted lines and signage; and

Class III – on-road preferred routes for bicycles that are not marked and the roadway with cars.

The City has a number of existing bicycle lanes on City streets and eventually plans to add on- and off-street bicycle lanes to allow for efficient bicycle movement throughout the City, as shown in the previous Exhibit 4.17-3. The Whittier Greenway Trail, in addition to being a Class I Bikeway, contains a separate pedestrian path, providing another way for pedestrians to travel across the Planning Area. The Whittier Greenway Trail is located adjacent to Lambert Road near the southwestern City boundary then generally follows the eastern boundary of the City.

Transit. The proposed update of the City General Plan Elements including the Mobility and Infrastructure Element (formerly called the Transportation Element). At present there are a number of transit organizations that provide services to the City along major roads and to major destinations within the City, as shown in the previous Exhibit 4.17-2, including Metro, Norwalk Transit, Foothill Transit, Sunshine Shuttle, and Montebello Bus. A major goal of the City is for residents and employees of the City to be able to take advantage of these non-vehicular transportation options (i.e., sidewalks, bicycle lanes, or transit) as they so choose, although using them as a replacement for commuting will only be possible if residents and workers in the City live within a convenient distance to their places of employment, schools, commercial centers, entertainment, etc.

2021 General Plan Update. The Mobility and Infrastructure Element of the proposed GPU contains the following summarized goals and policies regarding transportation plan consistency – please see Appendix B for complete wording of each goal and policy:

Mobility and Infrastructure Element

Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all travel options.

MI-1.1: Establish Whittier’s transportation network as a Complete Streets system and maintain the system in excellent condition to ensure that motor vehicle drivers, cyclists, pedestrians, transit users, goods movement, and people using any other mobility mode can easily and safely reach their destinations in the City. [summarized, see Appendix B]

MI-1.2: Establish a citywide pedestrian network consisting of both on-street (sidewalks) and off-street (trails or paths) facilities to connect neighborhoods, schools, open space, and major destinations [summarized – see Appendix B]

MI-1.3: Develop and maintain a citywide bicycle network of off-street bike paths, on-street bike lanes, and bike streets. Including: o enhancing existing and proposed Class II bike lanes to protected bike lanes and bike routes to bike lanes or bike boulevards on streets such as Colima Road, Russel Street, Mills Avenue, Washington Boulevard, Broadway Avenue, and Norwalk Boulevard; [summarized, see Appendix B]

MI-1.4: Establish a Safe Routes to School Program [summarized – see Appendix B]

Goal 2: Easy access to regional and local transit service for all residents and people working in Whittier.

MI-2.1: Establish a local transit circulator system that connects residents and visitors to the City to shopping and employment districts, regional transit facilities, schools, and recreation destinations.

MI-2.2: Establish a transit hub near Metro’s planned L Line/Gold Line light rail station; connect local transit circulator services at the station.

MI-2.3: Promote the use of transit within the City as a means of reducing local traffic congestion, achieving greenhouse gases reduction targets, and connecting the community physically and socially. [summarized – see Appendix B]

MI-2.4 Establish Comprehensive Operational Analysis & Long-Range Transit Plans [summarized – see Appendix B]

Goal 3: Vehicle miles travelled (VMT) reduced by 15% to meet SB743 thresholds and to establish consistency with State-mandated performance metrics.

MI-3.1: Enhance first-last mile at transit stops, including improved access, local shuttle service, new transit-supportive infrastructure, and subsidized fares.

MI-3.2: Implement Transportation Demand Management measures including requiring new developments within one mile of the Whittier Greenway Trail to provide improved pedestrian and bicycle access to the trail.

Goal 4: A strategic roadmap to implement emerging sustainable transportation systems.

MI-4.1: Develop and support electrified modes of transportation, include strategies [summarized – see Appendix B]

MI-4.2: Develop citywide car and bike sharing programs for cars and bike to reduce traffic congestion and promote sustainable travel modes.

MI-4.3: Develop a framework for implementation of alternative fuel vehicle infrastructure by inventorying existing supply, evaluating levels of future demand, and identifying approaches to accommodate future demand for alternative fuel vehicle stations and other related infrastructure.

MI-4.4: Prioritize and identify Disadvantaged Community locations to develop sustainable mobility hubs that include car-sharing, bikesharing, and public EV charging infrastructure

Goal 5: Reduced traffic congestion and environmental impacts associated with goods movement.

MI-5.1: Focus truck traffic onto designated truck routes including retaining and strengthening ordinances restricting through truck movement in residential neighborhoods.

MI-5.2: Develop a curb management strategy to accommodate the loading needs of ondemand food and goods delivery services.

MI-5.3: Enhance infrastructure to accommodate last-mile delivery services.

Goal 6: Well-managed parking demand and supply citywide.

MI-6.1: Encourage and support joint-use and off-site parking where appropriate, including:

- o monitoring parking demand within Uptown and develop strategies to allow shared parking approaches and use of public parking facilities; and

o reviewing development proposals to ensure potential adverse parking impacts are minimized or avoided, and that pedestrian and bicycle circulation are not negatively impacted.

MI-6.2: Develop a strategy to address parking demand near trailheads to reduce parking intrusion into adjacent residential neighborhoods. The strategy could include parking restrictions for non-residents, creation of trailhead lots, and provision of remote parking with shuttle service.

MI-6.3: Examine the potential shift in parking demand in Whittier due to parking management and increased use of ride sharing services (and autonomous vehicles) in the future, this approach should include inventorying existing parking spaces and understand the adaptability of these spaces for future uses with dynamic pricing and multitudes of usage during different times of day.

MI-6.4: Research the possibility of providing overnight and midday storage areas for TNC drivers or areas for TNC drivers (autonomous vehicles in future) to park while not in use to help reduce congestion and VMT (outside of areas that should be prioritized for other land uses).

Goal 7: An effective Curbside Management Strategy.

MI-7.1: Assess existing assets and create a curbside management strategy [summarized – see Appendix B]

Goal 8: Right-sizing of roadways.

MI-8.1: Investigate opportunities to adjust travel lane widths and the number of lanes on specific collector and arterial streets to create additional space within rights-of-way for bike lanes, landscaping improvements, and useable public green space.

Goal 9: Facilitating Smart Mobility and Autonomous Vehicle (AV).

MI-9.1: Create a Smart Mobility and Autonomous Vehicle (AV) Master Readiness Plan [summarized – see Appendix B]

Summary and Conclusions. Based on the availability of non-vehicular transportation options for the community outlined in General Plan Mobility Goals 1-9 and their attendant policies (shown above), the proposed GPU will not conflict with any applicable program, plan, or ordinance on the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Conflicts with New VMT Thresholds

Impact TRANS-2 – Would the GPU conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)?

Analysis of Impacts

In the past, the CEQA analysis for traffic impacts focused on LOS which measures congestion at local intersections and roadway segments. The emphasis of these past studies was to assure the street grid network functioned well (i.e., were not congested past a certain point) and allowed for efficient movement of vehicles.

In the fall of 2013, Senate Bill 743 (SB 743) was passed by the legislature and signed into law by the governor. SB 743 requires that congestion or delay-based metrics such as roadway capacity and Level of Service (LOS) will no longer be the performance measures used for the determination of the transportation impacts of projects in studies conducted under CEQA. Instead, new performance measures such as Vehicle Miles Traveled (VMT) will be used.

For planning and engineering purposes, the GPU Traffic Study focuses on LOS to identify congestion changes at local intersections and on local roadways as a result of traffic generated by future development in the Planning Area under a number of time-based scenarios (e.g., existing conditions, existing conditions plus GPU, GP Buildout, etc.). However, as noted above the CEQA thresholds of significance for transportation and traffic impacts is to encourage non-vehicular or active transportation (e.g., pedestrians, bicyclists, etc.) and transit, and to limit the increase in VMT by City residents and workers.

VMT growth associated with land use and transportation projects is part of adopted regional transportation plans (RTPs), regional transportation plans/sustainable communities strategies (RTP/SCSs), and general plans. These plans typically consider the acceptability of VMT growth at a cumulative or programmatic level. Additional VMT reduction may be achieved at the project level especially through transportation demand management (TDM) strategies, which are not fully accounted for in regional level travel forecasting models.

Although VMT is focused on auto travel, the goal of a zero-or-less per capita VMT growth rate leads to an emphasis on the effects of development patterns (e.g., land use mix and density) together with pedestrian, bicycle, and transit infrastructure, given that all of these factors have an impact on the number and length of vehicle trips. Efforts to reduce VMT may include TDM strategies and improvements to pedestrian, bicycle, and transit infrastructure.

Transit Priority Areas. The City has determined the current Transit Priority Areas to be areas within one-half mile of where two or more 15-minute (during commute hours) bus routes intersect or within one-half mile of a corridor served by 15-minute (during commute hours) bus service. Whittier's current Transit Priority Areas are shown in Figure 4.17-4 (Existing Transit Priority Areas). LA Metro is evaluating the Eastside Transit Corridor Phase 2, an extension of the Metro L Line (Gold) further east. The project is currently undergoing environmental review and is planned to have two stations serving Whittier, one at Norwalk Boulevard/Washington Boulevard and one at Lambert Road/Washington Boulevard as the terminus. With the completion of the Eastside Transit Corridor Phase 2, the future boundary of Whittier's Transit Priority Areas would expand to include areas within ½ mile of the two stations mentioned above (see Figure 4.17-5, Future Transit Priority Areas).

VMT Methodology. A detailed analysis for the GPU was prepared by Fehr & Peers in May 2021 (F&P 2021). The methodology for determining VMT transportation impacts in the City of Whittier is contained in its Transportation Study Guidelines (TSG)(City 2021). The TSG outlines the following process for performing a VMT analysis:

1. Determine if VMT analysis is necessary by comparing project characteristics for each land use to the City's screening criteria.
2. If a project component does not meet any of the screening criteria, perform VMT analysis for the component(s) that do not meet the screening criteria to determine that component's VMT (using the appropriate metric based on land-use type).
3. Compare the project component VMT to the significance criteria to determine if there is VMT transportation impact.

4. If there is an impact, identify mitigation measures to reduce the project impact.

The Southern California Association of Government (SCAG) Regional Travel Demand Model (hereinafter, “*SCAG Model*”), to estimate a project’s VMT. VMT is presented in numerous different forms depending on the analysis being conducted. “Home-Based VMT” per capita is used for residential projects and “Home-Based Work VMT” per employee for office projects. For general plans, Total VMT per service population⁴ is used to determine potential impacts.

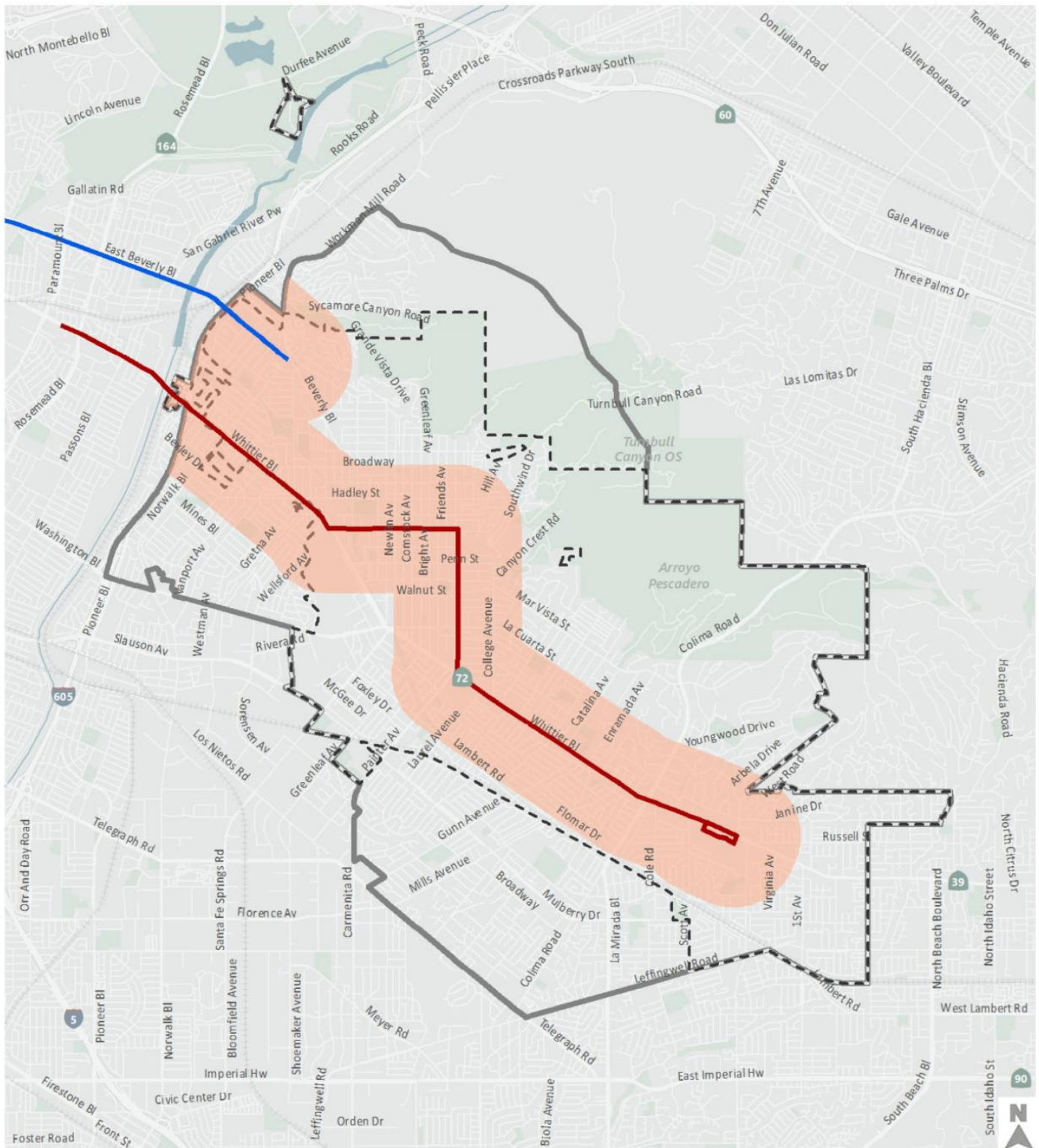
Pursuant to OPR and Whittier’s TSG, the F&P 2021 VMT analysis includes “project generated VMT” for the project TAZs and ‘project effect on VMT’ estimates under the following conditions:

- The Existing/Baseline 2019 Conditions (pre-Covid 19) represent the existing baseline conditions for the project based on the date that the Notice of Preparation for the EIR was released and conditions on the ground at the time the project was started;
- The Cumulative Base 2040 Conditions represent the 2016-2040 SCAG Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS); and
- The Cumulative Plus Project 2040 Conditions represent the updated General Plan scenario. The amended General Plan land use is represented in the assumed growth of the cumulative year socioeconomic input data in the model for the City’s planning area, and regional land uses and transportation improvements are consistent with the 2040 SCAG RTP/SCS.

Project-generated VMT were extracted from the SCAG Model by multiplying the origin-destination trip matrix by the final assignment skims under the Cumulative Plus Project 2040 Conditions. The summarized project generated VMT per service population is compared back to the thresholds of significance the City of Whittier has opted to use. Whittier’s TSG provides that “Home-Based VMT” per capita to be prepared for residential projects and “Home-Based Work VMT” per employee for office projects, therefore this section also presents these two metrics along with Total VMT per service population and Total VMT, which are summarized in Table 4.17-5.

Under Existing/Baseline Conditions, the service population of 174,518 (including residences and employees) in the City and Sphere of Influence generates 5,739,547 vehicle miles traveled (VMT), including autos and trucks. This results in 32.9 VMT per service population, 16.2 Home-Based VMT per capita for residential land uses, and 17.9 Home-Based Work VMT per employee for employment land uses.

⁴ Total number of residents and employees within the City



- Montebello Route 10
- Montebello Route 40
- Transit Priority Areas
- City of Whittier
- Sphere of Influence



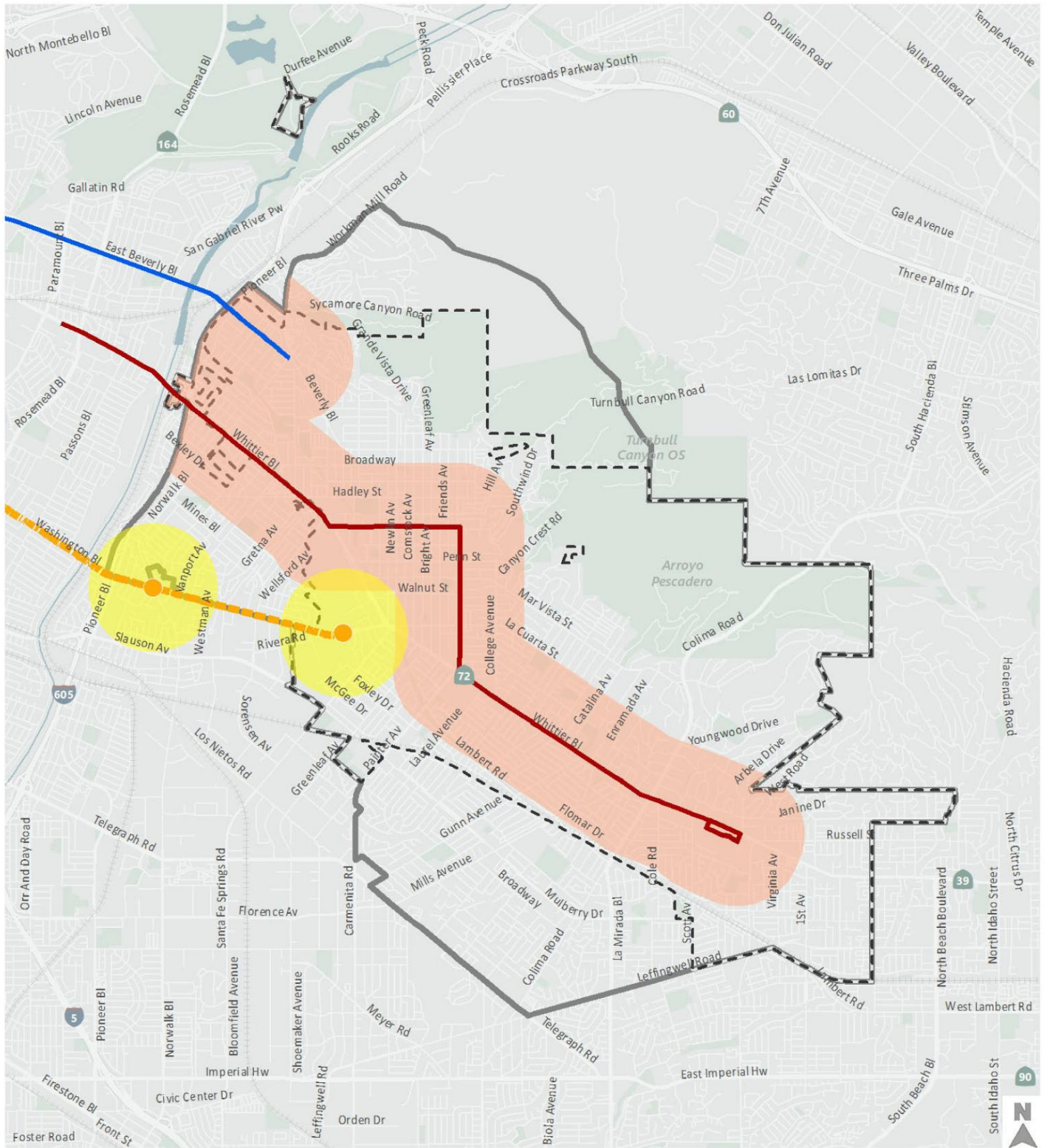
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Exhibit 4.17-4 Existing Transit Priority Areas

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- TPA Based on Bus Routes
- TPA Based on Metro L Line (Gold) Extension
- Metro L Line (Gold) Extension
- Metro Gold Line Stations
- Montebello Route 10
- Montebello Route 40
- City of Whittier
- Sphere of Influence

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Exhibit 4.17-5 Existing Future Transit Priority Areas

Whittier General Plan Update
Whittier, California



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Under Cumulative Base 2040 (without project) Conditions, the service population of 187,169 shows a total VMT of 5,520,899. This results for the 2040 condition in 29.5 VMT per service population, 14.7 VMT per resident for residential land uses, and 14.5 VMT per employee for employment land uses.

Under the Cumulative Plus Project 2040 Conditions, total VMT increases to reflect additional development in the City of Whittier. The service population of 196,453 generates 5,885,614 total VMT which results in 30.0 VMT per service population, 14.5 VMT per resident for residential land uses, and 14.7 VMT per employee for employment land uses (see Table 4.17-5).

**Table 4.17-5
VMT Summary by Trip Scenario**

SED / VMT Metrics	2019 Existing/Baseline Conditions	Cumulative Base 2040 Conditions	Cumulative Plus Project 2040 Conditions
Population	142,851	152,338	161,291
Employment	31,667	34,831	35,162
Service Population	174,518	187,169	196,453
Total VMT (Include Auto and Trucks)	5,739,547	5,520,899	5,885,614
Home-Based VMT (Production)	2,314,225	2,242,577	2,338,722
Home-Based Work VMT (Attraction)	567,120	506,193	515,187
Total VMT per Service Population	32.9	29.5	30.0
Home-Based VMT per Capita	16.2	14.7	14.5
Home-Based Work VMT per Employee	17.9	14.5	14.7
Source: Table 1, VMT Report, F&P 2021			

VMT Modeling. The SCAG Model is a 4-step, trip-based convergence model covering the entire SCAG 6-county region. The Model is structured geographically into approximately 4,100 tier 1 Transportation Analysis Zones (TAZs) and 11,267 tier 2 TAZs. Socioeconomic Data, Highway network, and Transit network are primary inputs to the SCAG Model to estimate trip generation and assign vehicle trips. The Project area is represented by 29 tier 1 TAZs and 79 tier 2 TAZs. For no project scenarios, base year (2016) model (hereinafter, “2016 Base Model”) and future base (2040) model (hereinafter, “2040 Base Model”) were used. Compared to the 2016 Base Model, the 2040 Base Model uses the same number of TAZs and boundaries, but SCAG has made different assumptions for socioeconomic and network inputs, as well as parameters such as Auto Operating Cost, TDM Factors, etc., that are consistent with the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS). These assumptions are independent from Whittier’s General Plan, which results in different estimates in vehicle trips, traffic volumes and VMT between no project scenarios.

In addition to the regional network assumptions in SCAG model, additional modifications were made to socioeconomic and transportation network inputs in the no project scenarios to match with local geographic boundaries and reflect local transportation improvements. Details are described in the following section.

VMT Impact Thresholds. The City has established the following significance threshold for VMT transportation impacts for each land use type in a project:

- For land use plans: Plans exceed 15 percent below City and Sphere of Influence (SOI) Baseline VMT for Total VMT per service population.
- For residential projects: Project exceeds 15% below City and Sphere of Influence (SOI) Baseline VMT for home-based VMT per capita.
- For office (commercial or light industrial) projects: Project exceed 15% below City and Sphere of Influence (SOI) Baseline VMT for home-based work VMT per employee.
- For regional retail projects: Project results in a net increase in total VMT in comparison to the City + SOI Baseline VMT
- For mixed-use projects: Evaluate each project land use component separately using the criteria above.

Project VMT Impact Analysis. In order to determine if the General Plan Update results in a project impact several steps are completed:

- Compare the proposed General Plan for consistency with the SCAG RTP/SCS;
- If consistent, that may support a finding of less than significant if the change from the existing baseline VMT to the project VMT baseline demonstrates a 15 percent reduction in per capita VMT for the Service Population; and
- For informational purposes, a comparison of 2040 no project and 2040 with project is also provided to help the public and stakeholders understand how the General Plan would affect travel patterns relative to the currently adopted plan.

Based on the three VMT metrics presented in Table 4.17-7 and compared to the impact thresholds shown in Table 4.17-6, the home-based work VMT per employee is estimated to be 15 percent or more below the cities Baseline VMT and would therefore not result in a significant impact. For the Total VMT per Service Population and Home Base VMT per Capita, Table 4.17-7 shows that the City's General plan is estimated to achieve a nine and 10 percent reduction, respectively.

Per State guidance and the City's impact thresholds, Table 4.17-8 shows the City will achieve double a 15 percent reduction for Total VMT per Service Population trips (30.0). However, Table 4.17-8 also shows that by 2040 the City will not quite achieve a 15 percent or more reduction for two of the major trip types expected in the City; Home-Based VMT per Capita (14.5) and Home-Based Work VMT per Employee (14.7). Although the total service population VMT achieves the 15 percent reduction, to err on the side of caution, this is still considered a potentially significant impact that requires mitigation.

Table 4.17-6
Baseline VMT and Thresholds

VMT Metrics	Average VMT (2019 Baseline)	Threshold (15% reduction)
Total VMT per Service Population	32.9	28.0
Home-Based VMT per Capita	16.2	13.8
Home-Based Work VMT per Employee	17.9	15.2

Source: Table 3, F&P 2021

Table 4.17-7
2040 Plus Project VMT Compared to Existing Baseline

VMT Metrics	Average VMT (2019 Baseline)	2040 Plus Project	Percent Difference
Total VMT per Service Population	32.9	30.0	-9%
Home-Based VMT per Capita	16.2	14.5	-10%
Home-Based Work VMT per Employee	17.9	14.7	-18%

Source: Table 4, F&P 2021

Table 4.17-8
2040 Plus Project VMT Compared to 2040 Baseline

VMT Metrics	2040 Base	2040 Plus Project	Percent Difference
Total VMT per Service Population	29.5	30.0	1.6%
Home-Based VMT per Capita	14.7	14.5	-1.5%
Home-Based Work VMT per Employee	14.5	14.7	0.8%

Source: Table 5, F&P 2021

Mitigation Considered. As shown in Table 4.17-7, all three VMT metrics perform better than the City's Baseline (9 percent to 18 percent better). However, the State's guidance and the City's adopted VMT approach require the VMT metrics to perform 15 percent better than the City's baseline average in order to not exceed the significant impact threshold. Therefore, mitigation strategies for Home-Based VMT per Capita and Total VMT per Service Population were analyzed as potential mitigation that could be achieved through the following strategies:

- **Expand Local Transit.** For VMT mitigation, the local transit network could be expanded by adding shuttle routes connecting several destinations such as Uptown Whittier, the Groves, the proposed Lambert Road/Washington Boulevard Station of the Eastside Transit Corridor Phase 2 (L Line, formerly Gold Line), the Quad, and Whittier College. Fehr & Peers examined local shuttle operations that would occur on weekdays during on-/off-peak hours, with 15-minute headways and a route and stops serving several areas and key destinations. The analysis incorporated the shuttle route, stops, and anticipated operational characteristics in the SCAG model to estimate reductions in trips and trip lengths that are factored into the VMT calculations for the mitigation scenario.
- **Bicycle Master Plan.** Early buildout of the bicycle and pedestrian facility network proposed in the City's Bicycle Master Plan and General Plan was examined as possible VMT mitigation. The City has already designed and secured funding for the completion

of the Whittier Greenway Trail to the eastern City limit, which will fill in a missing gap and significantly expand access, along with other proposed facilities, to Uptown Whittier, major destinations along Lambert Road and Whittier Boulevard (such as The Quad, Whittwood Town Center, and the Groves), and the future L Line Station at Washington Boulevard and Lambert Road. This strategy would help reduce Total VMT per service population as any trip, whether for employment, residential, or other trip purposes, that shifts to utilizing the bicycle or pedestrian network would lead to a reduction in VMT.

- **Telecommuting/Alternative Work Schedules.** Fehr & Peers examined the potential VMT reductions in trips and trip length that could arise from the encouragement of telecommuting and alternative work schedules, and the shift to telecommuting from Covid-19 and continuing advances in technology. This potential VMT mitigation was applied to selected employment categories such as professional employees (not applied to retail employees who would continue to work on-site), and also analyzed up to one day a week of telecommuting, which would reduce the number of commute trips and therefore the total and per capita VMT traveled by employees.

These three potential VMT mitigation strategies were applied using a combination of the SCAG model and trip adjustment factors. Fehr & Peers found that these strategies resulted in the Home-Based VMT per Capita and Home-Based Work VMT per Employee achieving a 17 and 21 percent reduction relative to Whittier’s baseline, respectively. However, Table 4.17-9 demonstrates that the City would only achieve a 13 percent reduction in total City-wide VMT per Service Population. According to the F&P analysis, the City cannot achieve a 15 percent or more reduction in VMT at this time even with implementation of all feasible mitigation strategies. The proposed GPU is not consistent with the State guidance and the City’s own VMT impact thresholds (see Goal 3 below). Therefore, Project VMT impacts are significant and unavoidable.

**Table 4.17-9
2040 Plus Project VMT With Mitigation**

VMT Metrics	2040 Plus Project	2040 Plus Project with Mitigation	Percent Difference
Total VMT per Service Population	30.0	28.6	-13%
Home-Based VMT per Capita	14.5	13.5	-17%
Home-Based Work VMT per Employee	14.7	14.2	-21%
Source: Table 7, F&P 2021			

It should be noted that F&P selected the three mitigation strategies because they appeared to have the greatest potential for VMT reductions toward the overall service population VMT value. While other strategies may be possible, they would not feasibly reduce VMT levels greater than those evaluated in the F&P analysis.

2021 General Plan Update. The Mobility and Infrastructure Element of the proposed GPU contains the following goal and its attendant policies regarding vehicle miles traveled (VMT) – please see Appendix B for complete wording of each goal and policy:

Mobility and Infrastructure Element

Goal 3: Vehicle miles travelled (VMT) reduced by 15% to meet SB743 thresholds and to establish consistency with State-mandated performance metrics.

MI-3.1: Enhance first-last mile at transit stops, including improved access, local shuttle service, new transit-supportive infrastructure, and subsidized fares.

MI-3.2: Implement Transportation Demand Management measures including requiring new developments within one mile of the Whittier Greenway Trail to provide improved pedestrian and bicycle access to the trail.

Summary and Conclusions. The proposed GPU does not quite meet the total service area VMT reduction goal of 15 percent established in the Mobility and Infrastructure Element, therefore its VMT impacts are significant and adverse even with implementation of all feasible mitigation. In addition, uncertainty about funding availability with respect to the timing of implementation and construction of the identified mitigation measures makes it, as a practical matter difficult to gauge the efficacy of these measure in advance of the 2040 time horizon for the GPU.

Level of Significance Before Mitigation

Significant.

Mitigation Measures

- VMT-1 Expand Local Transit.** The City shall seek ways to expand local transit services including but not limited to: (1) adding shuttle routes connecting several destinations such as Uptown Whittier, the Groves, the proposed Lambert Road/Washington Boulevard Station of the Eastside Transit Corridor Phase 2 (L Line, formerly Gold Line), the Quad, and Whittier College; and (2) expand local shuttle operations that would occur on weekdays during on-/off-peak hours, with 15-minute headways and a route and stops serving several areas and key destinations.
- VMT-2 Bicycle Master Plan.** The City shall investigate ways to achieve “early buildout” of the bicycle and pedestrian facility network proposed in the City’s Bicycle Master Plan and General Plan. These actions would be in addition to completion of the Whittier Greenway Trail to the eastern City limit for which the City has already designed and secured funding. Such actions would help reduce Total VMT per service population because any trip, whether for employment, residential, or other trip purposes, that shifts to utilizing the bicycle or pedestrian network would lead to a reduction in VMT.
- VMT-3 Telecommuting/Alternative Work Schedules.** The City will develop specific policies and incentives to encourage telecommuting and alternative work schedules (similar to the shift to telecommuting from Covid-19 and continuing advances in technology). These actions would be applied to selected employment categories such as professional employees and would not be applied to certain other employment categories (e.g., retail employees would still continue to work on-site). For example, the Fehr & Peers Study examined up to one day a week of telecommuting which would reduce the number of commute trips and therefore reduce the total and per capita VMT traveled by employees in that employment category.

Level of Significance After Mitigation

Significantly Adverse and Unavoidable.

Design Feature Hazards

Impact TRANS-3– Would the GPU substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Analysis of Impacts

A comprehensive traffic study was prepared to support preparation of the Mobility and Infrastructure Element of the GPU (F&P 2021). Provided below are the applicable goals and policies - please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all travel options.

MI-1.1: Establish Whittier’s transportation network as a Complete Streets system and maintain the system in excellent condition to ensure that motor vehicle drivers, cyclists, pedestrians, transit users, goods movement, and people using any other mobility mode can easily and safely reach their destinations in the City. [summarized, see Appendix B]

Goal 8: Right-sizing of roadways.

MI-8.1: Investigate opportunities to adjust travel lane widths and the number of lanes on specific collector and arterial streets to create additional space within rights-of-way for bike lanes, landscaping improvements, and useable public green space.

Summary and Conclusions. Therefore, the proposed GPU is by definition consistent with the goals and policies of the Mobility and Infrastructure Element related to minimizing roadway and intersection hazards due to geometric design or incompatible uses in the Planning Area. The City’s development review process will assure that future development under the GPU will be consistent with these policies and thus prevent a significant increase in traffic hazards.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Emergency Access

Impact TRANS-4 – Would the GPU result in inadequate emergency access?

Analysis of Impacts

A comprehensive traffic study was prepared to support preparation of the revised Transportation (i.e., Mobility and Infrastructure) Element for the GPU. Provided below are the applicable goals and policies from the proposed GPU related to emergency access - please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal 1: A connected, balanced, integrated, safe, and multi-modal transportation system that accommodates all travel options.

MI-1.1: Establish Whittier’s transportation network as a Complete Streets system and maintain the system in excellent condition to ensure that motor vehicle drivers, cyclists, pedestrians, transit users, goods movement, and people using any other mobility mode can easily and safely reach their destinations in the City. [summarized, see Appendix B]

Summary and Conclusions. Therefore, the proposed GPU is by definition consistent with the goals and policies of the Mobility and Infrastructure Element related to maintaining emergency access within the Planning Area. The City’s development review process will assure that future development under the GPU will be consistent with these policies and not hinder emergency access for individual sites.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact TRANS-5 – Would the GPU cause substantial adverse cumulative impacts with respect to transportation and traffic?

Analysis of Impacts

The GPU traffic study evaluated cumulative VMT impacts in 2040 and determined the City will achieve greater than a 15 percent reduction for cumulative Home-Based VMT per Capita trips (-17%) and Home-Based Work VMT per Employee trips (-21%) by 2040 with mitigation. However, it will not quite achieve 15 percent or greater reduction for Total VMT per Service Population trips (-13%) by 2040 even with mitigation (see previous Table 4.17-9). Therefore, the Project will make an incremental but significant contribution to cumulatively considerable regional VMT impacts even with all feasible mitigation.

The GPU traffic study also examined cumulative conditions in terms of traffic volumes against City Mobility and Infrastructure Element standards. The study examined the expected changes in traffic over existing conditions from ambient growth in existing traffic volumes due to the effects of overall regional growth and development outside the Planning Area. The annual change for the Planning Area intersections was forecasted at approximately a nine percent reduction. This negative growth factor between the existing base and future year no project scenario is attributable to future regional transportation network improvements and transportation demand management (TDM) factors that SCAG has assumed for 2040, consistent with the following planned and programmed regional projects and the SCAG RTP/SCS:

- LA Metro’s Eastside Transit Corridor Phase 2, an extension of the Metro L Line (Gold) further east, is planned to have two stations serving Whittier. This would result in a mode shift from autos to transit.
- SCAG’s RTP/SCS assumes the implementation of several TDM factors, such as increased auto ownership costs, shifts to telecommuting, and further implementation of

regional trip reduction strategies in the 2040 Base Model compared to the 2016 Base Model.

For 2040, the traffic study identified the following four intersections that were expected to operate at LOS E or F during their AM peak hour under Future Base Plus Project conditions (initial number is the intersection reference number as shown in Table 10, F&P 2021):

- 1) Norwalk Boulevard & Beverly Boulevard (LOS E in AM peak hour);
- 2) Pickering Avenue, Santa Fe Springs Road & Washington Boulevard, Whittier Boulevard (LOS E in AM and LOS F in PM peak hours);
- 9) Colima Road & Mar Vista Street (LOS E in AM peak hour); and
- 11) Colima Road & Lambert Road (LOS E in AM peak hour).

In addition, the proposed Project traffic volumes were added to the Cumulative traffic volumes to develop the Cumulative plus Project volumes for 2040. The Cumulative Base and Cumulative plus Project volumes were analyzed to determine change in V/C and LOS for the study intersections. As shown below, the following four intersections are expected to operate at LOS E or F during their AM peak hour or/and PM peak hour under Future Plus Project conditions (initial number is the intersection reference number as shown in Table 11, F&P 2021):

- 1) Norwalk Boulevard & Beverly Boulevard (LOS E in AM peak hour);
- 5) Pickering Avenue, Santa Fe Springs Road & Washington Boulevard, Whittier Boulevard (LOS E in AM and LOS F in PM peak hours);
- 9) Colima Road & Mar Vista Street (LOS E in AM peak hour); and
- 11) Colima Road & Lambert Road (LOS F in AM and LOS E in PM peak hour).

F&P 2021 Table 12 demonstrates that these four intersections are expected to operate at LOS E or F during their AM peak hour or/and PM peak hour under Future Plus Project conditions. This exceeds the LOS standard in the current General Plan but the proposed GPU no longer has an LOS standard but rather a VMT standard per state guidance. However, Impact TRA-2 above concluded the GPU would have a significant and unavoidable VMT impact even with recommended mitigation (see **Mitigation Measures VMT-1 through VMT-3**). Therefore, the GPU would also make an incremental but significant contribution to a regional (cumulative) VMT impact and would not be fully consistent with the General Plan (Mobility and Infrastructure Element) in that regard.

Level of Significance Before Mitigation

Significant (i.e., not consistent with the new VMT threshold of the State and City).

Mitigation Measures

See Mitigation Measures VMT-1 through VMT-3 in IMPACT TRANS-2.

Level of Significance After Mitigation

Significant and Unavoidable even with implementation of feasible mitigation

4.17.5 REFERENCES

City of Whittier. (City 2017). *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017.

_____. (City 2021). *Transportation Study Guidelines*. City of Whittier. January 2021.

Fehr & Peers (F&P 2021). *Transportation Impact Analysis (TIA) for the Whittier General Plan*. Fehr and Peers, May 25, 2021.

Metropolitan Transit Authority of Los Angeles County (Metro). 2020. *Eastside Transit Corridor Phase 2*. Web: https://www.metro.net/projects/eastside_phase2/. [Accessed January 2021].

4.18 – Tribal Cultural Resources

This section addresses potential impacts to Tribal Cultural Resources (TCR) associated with the General Plan Update (GPU). Issues of interest are potential impacts to Native American sites, features, places, cultural landscapes, sacred places, and objects with cultural value to Native American tribes that are identified within CEQA.

4.18.1 – ENVIRONMENTAL SETTING

Tribal Cultural Resources are the physical artifacts associated with the spiritual and religious lives of Native people that ties them together with their environment, each other, and their place in the universe. Prior to European contact, areas within present day Whittier were occupied by Native Americans, specifically the Gabrieleño/Tongva Indians. It should be noted that the European name “Gabrieleño” was applied to this tribal group because of their association with Mission San Gabriel which was founded in 1771. The Gabrieleño are considered one of the most distinctive tribes in all of California, occupying an area that was bordered by Topanga and Malibu, the San Fernando Valley, the greater Los Angeles Basin, the coastal strip down to Aliso Creek south of San Juan Capistrano, and the islands of Catalina, San Nicolas and San Clemente. They are credited with an extensive and elaborate material culture, their expert craftsmanship in quarrying and manufacturing soapstone, and constructing the plank canoe. Based on research in the Ballona Creek area of the Los Angeles Basin, the La Brea Tar Pits, and Malaga Cove, the general area was occupied for over 20,000 years. The Puente Hills are known to have archaeological resources that pre-date Spanish and Mexican land grants. These resources date back thousands of years and are reflective of Native American settlement patterns (Whittier, 2017). Given the long history of Native American settlement in the region, there is a high probability of finding archaeological resources in the Planning Area.

NOP Comments

A letter from the California Native American Heritage Commission (HAHC) was received on May 3, 2021 that provided historical information about the NAHC and its role in CEQA as well as the Native American Tribal Consultation process under SB 18 and AB 52. That information has been incorporated as appropriate into this section of the EIR.

4.18.2 – REGULATORY FRAMEWORK

State

California Assembly Bill 52

AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a notice of preparation or a notice of negative declaration filed or mitigated negative declaration on or after July 1, 2015. AB 52 amends

4.18 – Tribal Cultural Resources

Sections 5097.94 and adds Sections 21073, 21074, 2108.3.1., 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to the California Public Resources Code (PRC), relating to Native Americans.

Senate Bill (SB) 18

California Government Code, Section 65352.3 incorporates the protection of California traditional tribal cultural places into land use planning for cities, counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any general or specific plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation list within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a general or specific plan.

Local

City of Whittier General Plan

The Environmental Resource Management Element of the City's existing 1993 General Plan specifies the following goal and policies to help protect tribal cultural resources:

Goal 1.0: Determine the nature and extent of Whittier's physical and cultural heritage.

Policy 1.2: Require investigations for new development during the environmental review to evaluate the potential for archaeological and paleontological resources.

4.18.3 – SIGNIFICANCE THRESHOLDS

As identified in Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA) the General Plan Update could result in a significant impact if it causes a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.18.4 – IMPACTS AND MITIGATION MEASURES

Adverse Changes

Impact TRC-1 – Would the GPU cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size

and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

Analysis of Impacts

Prior to European contact, the Planning Area was inhabited by the Gabrieleño Indian Tribe for many thousands of years. Development began in the Whittier area in the late 1800's but the Puente Hills are known to contain archaeological resources that pre-date Spanish and Mexican land grants. Therefore, future development in the Planning Area, especially on vacant land in the Puente Hills, has a high probability of uncovering Native American archaeological resources. Based on currently available information, there are no indications the Planning Area contain any specific identified tribal cultural resources and there is no landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) within the Planning Area.

Under the requirements of SB 18, the City will consult with Gabrieleño Tribal representatives regarding future development under the proposed GPU to determine if any tribal cultural resources exist in the area and/or if any such resources could be impacted by the proposed development.

The Conservation Element of the current General Plan contains Goal 1.0 and its Policy 1.2 which encourage project-level investigation for archaeological/Native American resources.

2021 General Plan Update. The Historical Resources and Resource Conservation Elements of the proposed GPU contains the following goals and policies which will continue to identify, preserve, and protect archaeological and tribal cultural resources within the Planning Area:

Historical Resources Element

Goal 1: Historic Resources Identification: Identify historic, cultural, and archaeological resources.

Policies

HR-1.1: Evaluate potential historic resources and evaluate/provide required contextual statements for additional residential and commercial historic districts, as requested by the City Council or individual property owner.

HR-1.2: Consider documenting Whittier's post World War II residential neighborhoods. View Whittier's post-World War II neighborhoods holistically rather than building by building to gain an understanding of how they developed and what the context of their design and development means within the history of Whittier's residential enclaves.

HR-1.3: Evaluate the Uptown District to determine its appropriateness as a potential historic district.

HR-1.4: Ensure each of the four already-designated historic districts clearly identifies contributing and non-contributing resources within defined boundaries.

HR-1.5: Identify and map areas of archaeological sensitivity (includes tribal resources).

HR-1.6: Understand that areas along the San Gabriel River and in the Puente Hills have a high potential for archaeological/tribal resources.

Resource Management Element

Goal 12: Preservation and respect for tribal cultural resources.

Policy RM-12.1: Coordinate with local tribes in local land use decisions consistent with State law.

General Plan Analysis. The City's established development review procedures requires an assessment of archaeological resources for new development, especially in previously undisturbed areas such as the Puente Hills. The development review process also requires compliance with the established Native American consultation procedures of SB 18 and AB 52 (see Section 4.5) prior to approval of a CEQA document.

In addition, Section 7050.5 of the California Health and Safety Code requires that, if human remains are discovered during grading or earthmoving, work must be halted and the coroner contacted to determine the Most Likely Descendant (MLD). If the MLD is Native American, tribal representatives will be contacted to consult on the appropriate disposition of the remains. CEQA requires the City and any project developer, including the City if it is a public works project, to comply with state law if human remains are found during excavation. The presence of human remains of Native American origin on a particular development site may but does not automatically indicate the presence of important tribal resources.

Summary and Conclusions. With implementation of the General Plan goals and policies, as well as the City's established development review and Native American consultation processes, potential impacts to tribal cultural resources by resulting from implementation of the GPU would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Resource Impacts

Impact TRC-2 – Would the GPU cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Analysis of Impacts

Prior to European contact, the Planning Area was inhabited by the Gabrieleño Indian Tribe for many thousands of years. Development began in the Whittier area in the late 1800's but the Puente Hills are known to contain archaeological resources that pre-date Spanish and Mexican land grants. Therefore, future development in the Planning Area, especially on vacant land in

the Puente Hills, has a high probability of uncovering Native American archaeological and/or tribal cultural resources.

Subdivision (c) of Public Resources Code Section 5024.1 states that “a resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.”

If cultural resources are found on a development site, they must be evaluated by a qualified archaeologist according to these criteria. If a resource is found to be significant under these criteria, including a tribal cultural resource, the City as the lead agency under CEQA must demonstrate it has taken appropriate steps to protect such resources in cooperation with the private property owner if applicable which must be documented in the project-level CEQA process.

Under the requirements of SB 18 and AB 52, the City is participating in ongoing consultation with locally interested Tribes, and in particular will consult with Gabrieleño Tribal representatives regarding the proposed GPU and its potential impacts on tribal cultural resources. In addition, future development under the GPU would be subject to Native American Consultation requirements under SB 18 and/or AB 52 as appropriate (depending on the nature of the project).

The Conservation Element of the current General Plan contains Goal 1.0 and its Policy 1.2 which encourage investigation for archaeological/Native American resources.

2021 General Plan Update. The Historical Resources Element of the proposed GPU contains the following (summarized) goals and policies which will continue to identify, preserve, and protect archaeological and tribal cultural resources within the Planning Area:

Historical Resources Element

Goal 1: Historic Resources Identification: Identify historic, cultural, and archaeological resources.

Policies

HR-1.1: Evaluate potential historic resources and evaluate/provide required contextual statements for additional residential and commercial historic districts, as requested by the City Council or individual property owner.

HR-1.2: Consider documenting Whittier’s post World War II residential neighborhoods. View Whittier’s post-World War II neighborhoods holistically rather than building by building to gain an understanding of how they developed and what the context of their design and development means within the history of Whittier’s residential enclaves.

HR-1.3: Evaluate the Uptown District to determine its appropriateness as a potential historic district.

HR-1.4: Ensure each of the four already-designated historic districts clearly identifies contributing and non-contributing resources within defined boundaries.

HR-1.5: Identify and map areas of archaeological sensitivity (includes tribal resources).

HR-1.6: Understand that areas along the San Gabriel River and in the Puente Hills have a high potential for archaeological/tribal resources.

Goal 5: Promote historic, cultural, and archaeological resources as a source of community identity and pride.

Policies

HR-5.1: Encourage public knowledge, understanding, and appreciation of Whittier’s role in local and regional history.

HR-5.2: Foster civic and neighborhood pride and a sense of identity based on the recognition and use of historical and cultural resources.

General Plan Analysis. Historic Resources Element Goals 1 and 5 and their attendant policies will help protect archaeological and tribal resources if they are found during grading for new projects under the GPU. The City’s established development review procedures requires an assessment of archaeological resources for new development, or tribal resources if applicable, especially in previously undisturbed areas such as the Puente Hills. The development review process also requires compliance with the established Native American consultation procedures of SB 18 and AB 52 (see Section 4.5) prior to approval of a CEQA document.

Summary and Conclusions. With implementation of the General Plan goals and policies, as well as the City’s established development review and Native American consultation processes, potential impacts to tribal cultural resources resulting from implementation of the project would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact TRC-3 – Would the GPU cause substantial adverse cumulative impacts with respect to tribal cultural resources?

Analysis of Impacts

The Planning Area and surrounding area have been occupied by Native Americans for thousands of years, and the region has been inhabited by European settlers since the 1800’s. Therefore, it is possible that earthwork within the City or surrounding jurisdictions may disturb Native American tribal cultural or archaeological resources. State law requires local jurisdictions, including the City, to consult with local Native American tribal representatives when development or public works projects may affect tribal cultural resources (i.e., SB 18 and AB 52). This government-to-government consultation process is critical to identifying actions that

could have significant impacts on tribal cultural resources before any ground disturbance occurs in the surrounding region.

The Historical Resources Element of the proposed GPU contains goals and policies which will continue to identify, preserve, and protect archaeological and tribal cultural resources within the Planning Area. Consistent with federal and state laws, the General Plans of the surrounding jurisdictions have similar goals and policies to protect cultural resources within their boundaries as well. Finally, state law requires the City and surrounding jurisdictions to notify Native American representatives if tribal human remains are found.

In these ways, potential cumulative impacts to tribal cultural resources will be minimized, and future development in the City of Whittier under the GPU will not make a significant contribution to any cumulative regional impacts on tribal cultural resources.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.18.5 REFERENCES

City of Whittier. *Envision Whittier General Plan: Existing Conditions Atlas*. November 2017

4.19 – Utilities and Service Systems

This EIR chapter addresses utilities and service systems impacts associated with the proposed General Plan Update (GPU). Issues of interest are utilities and service systems impacts identified by the CEQA Guidelines: whether the Project will require or result in the relocation or construction of new or expanded water, wastewater treatment, or other facilities; whether the GPU will have sufficient water supplies; whether the GPU will result in a determination by the wastewater treatment provider that it has adequate capacity to serve the Project's demand in addition to existing commitments; whether the GPU will generate solid waste in excess of standards; and whether the Project will comply with regulations related to solid waste.

4.19.1 – ENVIRONMENTAL SETTING

Water Service

As shown in Exhibit 4.19-1(Water Districts), there are four water providers that serve the Planning Area. The City of Whittier Public Works Department Water Division operates and maintains a water pumping plant in Pico Rivera that produces 8,000,000 gallons of water per day that fill 11 reservoirs in Whittier. The Whittier Public Works Department provides water service to 48,000 customers in the western half of the Planning Area. The San Gabriel Valley Water Company is an investor-owned water utility that provides water service to the West Whittier-Los Nietos area. Suburban Water Systems is a public utility water company that provides water services to the eastern half and southern portion of the Planning Area. The Orchard Dale Water District primarily serves residential customers in the southern portion of the Planning Area (Whittier, 2017).

Most water that is supplied to the Planning Area is drawn from groundwater aquifers in the San Gabriel Main Basin and Coastal Plain of the Los Angeles Central Basin. Since the majority of the Planning Area is built out, the four water service providers that serve the Planning Area do not anticipate significant population growth or increases in demand. Planned capacity improvements within the Planning Area are primarily to maintain adequate fire flows. The City of Whittier Public Works Department and San Gabriel Valley Water Company also supply recycled water, but the distribution area is limited. Recycled water use is primarily for California Department of Transportation (Caltrans) freeway/highway irrigation, City of Whittier parks (Founders Park and Palm Park), and at schools (Dexter School, Orange Grove School, and Longfellow School). To promote water conservation, the City of Whittier adopted a Water Efficient Landscape Ordinance (Whittier, 2017).

Wastewater

The City of Whittier owns, operates, and maintains the wastewater collection system serving homes, businesses, and institutions within the Planning Area. Exhibit 4.19-1 (Major Wastewater Facilities) shows the location of sewer trunk lines within the Planning Area. The wastewater collection system consists of approximately 194 miles of sanitary sewer mains. In addition to these City sewers, approximately seven miles of private sewers and 14 miles of County Sanitation Districts of Los Angeles County (LACSD) trunk sewers traverse the Planning Area. The City's wastewater system conveys wastewater into the LACSD trunk sewer at various locations throughout the Planning Area. Once in the LACSD trunk sewer system the wastewater is conveyed to the LACSD wastewater treatment plant for final treatment and disposal. The City of Whittier has planned capital improvements to the wastewater system including 17,200 linear

feet of pipe replacement to correct existing capacity deficiencies and problem hot spots. These improvements include the La Cuarta Capacity Improvement Project, which is required prior to further development in Uptown, and 31,500 linear feet of pipe replacement through 2035 to provide capacity for future growth and to replace aging pipes (Whittier, 2017).

Stormwater

The storm drain system in the Planning Area is operated by the Los Angeles County Flood Control District (LACFCD). Stormwater endpoint discharge is the Pacific Ocean via the San Gabriel River and its tributaries - Coyote Creek, La Mirada Creek, Leffingwell Creek, and Verde Creek. Exhibit 4.19-3 (Storm Drainage Facilities) shows the location of storm drains within the Planning Area. The San Gabriel River is impaired by pollutants, including metals (copper, lead, zinc) and selenium that are carried by stormwater. Metals are common stormwater pollutants associated with roads and parking lots. Other sources of these pollutants include building materials (such as galvanized steel) that are exposed to rain. The City of Whittier is as a co-permittee in the Los Angeles County National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit. Limited portions of the Planning Area are mapped as flood hazard zones with 0.2% annual chance of inundation. These areas include portions of Whittier Boulevard, Hadley Street, Palm Avenue, and Jacmar Avenue. To comply with the NPDES permit and reduce stormwater pollution, the City has implemented the following measures:

- Plan Review and implementation of Construction and Post-Construction Water Quality Best Management Practices (BMPs) for Development and Redevelopment
- Low Impact Development (LID) Ordinance
- Green Street Ordinance
- Regenerative Street Sweeping
- Participation in the Gateway Region of Los Angeles LID BMP Program (installation of bioretention tree wells on Milton Avenue and Comstock Avenue)

BMP Locations in the Planning Area

The City is evaluating opportunities to install regional water quality BMPs at the following locations:

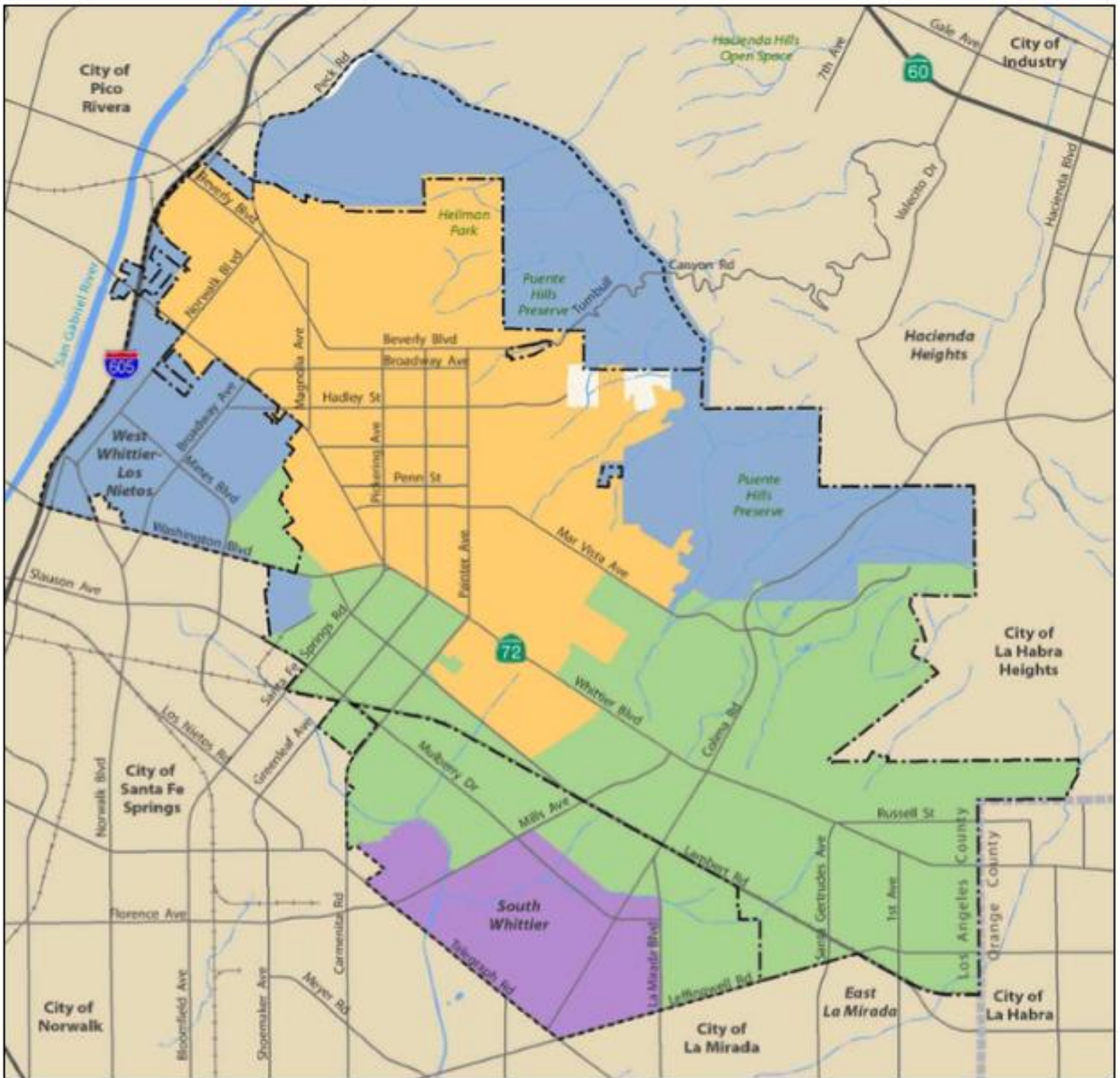
Coyote Creek Watershed

- Arroyo Pescadero Park (Puente Hills Preserve)
- Parnell Park
- Michigan Park
- York Field Park
- Founders Memorial Park
- Leffingwell Ranch Park
- John Greenleaf Whittier Park
- Central Park
- Kennedy Park
- Anaconda Park
- Laurel Park

San Gabriel Watershed

- Hellman Wilderness Park
- Palm Park

- Amigo Park
- 10559 Cliota Street Park



Base Map Features

- Whittier City Boundary
- - - - - Whittier Sphere of Influence
- ||||| County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Water Districts

- City of Whittier
- Orchard Dale Water District
- San Gabriel Valley Water Company
- Suburban Water Systems



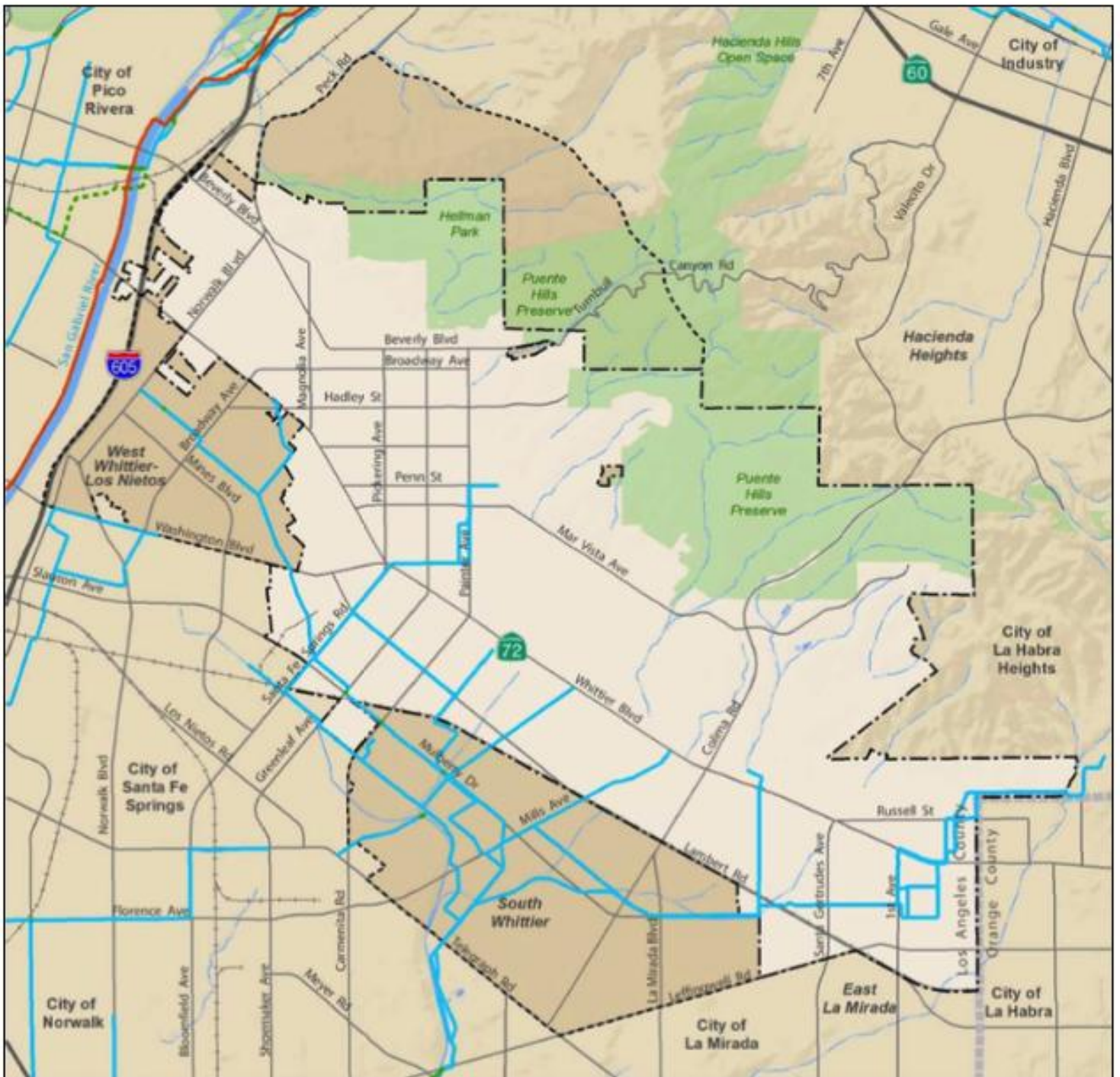
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Exhibit 4.19-1 Water Districts

Whittier General Plan Update
Whittier, California

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Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Sewer Trunk Lines (LA County Sanitation Districts)

- In Service Gravity
- In Service Siphon / Suction
- Outfall (San Gabriel River)
- Out of Service Gravity / Siphon



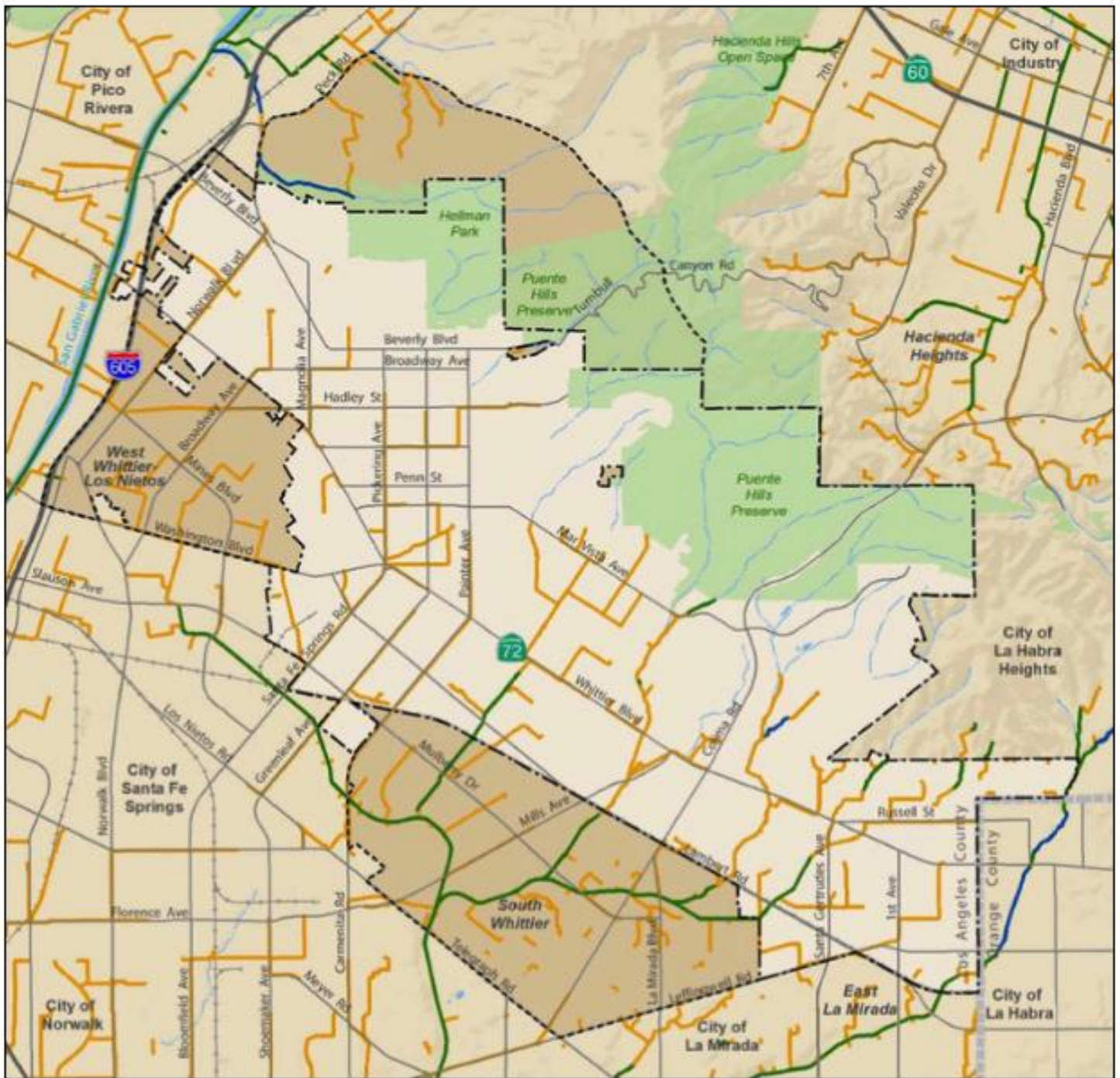
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Exhibit 4.19-2 Major Wastewater Facilities

Whittier General Plan Update
Whittier, California



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Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas

Storm Drains

- Open Drainage Course
- Natural Drainage Course
- Gravity Main



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Exhibit 4.19-3 Storm Drainage Facilities

Whittier General Plan Update

Whittier, California



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Solid Waste and Recycling Services

There are two solid waste collection providers that serve the Planning Area. Athens Services provides solid waste collection service to the western portion of the Planning Area, while Republic Services serves the eastern portion of the Planning Area. Athens Services and Republic Services both transport all of the Planning Area’s residential and commercial waste to Material Recovery Facilities (MRFs) where recyclable materials are sorted and then diverted from local landfills. As a result, businesses and residential uses that are serviced by Athens Services and Republic services are already in compliance with AB 341 (See Section 4.19.2, Regulatory Framework, below). There is also an active landfill, Savage Canyon Landfill, located in the north-central portion of the Planning Area, just east of Whittier College. Savage Canyon Landfill is approximately 129 acres and has a maximum permitted capacity of 19,337,450 cubic yards (CY), a maximum permitted daily throughput of 3,350 tons per day, and remaining capacity of 9,510,833 CY. The Savage Canyon Landfill has an estimated closure date of December 31, 2055 (CalRecycle, 2020).

Energy Services

Electrical services to the Planning Area are provided by Southern California Edison (SCE) while natural gas is supplied by the Southern California Gas Company (SCGC).

Telecommunications Service

Telecommunication services would be provided by Time Warner, Charter Spectrum, AT&T, Verizon, or other service providers in the area.

NOP Comments

A letter from the **Los Angeles County Sanitation Districts (LACSD)** was received on May 15, 2021 that provided historical information about the District and its service capabilities as well as a desire for the EIR to address in the General Plan EIR regarding wastewater conveyance and treatment. The following sections evaluate those issues as requested by the LACSD. The information provided by the LACSD will be included in this section and the issues of wastewater conveyance and treatment will be addressed as well.

4.19.2 – REGULATORY FRAMEWORK

Federal

Clean Water Act (CWA)

The CWA is the cornerstone of surface water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) are responsible for ensuring implementation and compliance with the provisions of the Federal CWA.

National Pollution Discharge Elimination System (NPDES)

This is a program created for consistency with the Clean Water Act. The Act prohibits discharging “pollutants” through a “point source” into a “water of the United States” unless they have an NPDES permit. The permit contains limits on what can be discharged, creates monitoring and reporting requirements, and other provisions to ensure the discharge does not diminish water quality and/or people’s health.

State

California Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), administered by EPA in coordination with the California Department of Public Health (CDPH), is the main Federal law that ensures the quality of drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

California Department of Resources, Recycling, and Recovery (CalRecycle)

CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. It also provides funds to clean up solid waste disposal sites and co-disposal sites, including facilities that accept hazardous waste substances and non-hazardous waste. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including AB 939 and SB 1016 (see below).

Assembly Bill 939 (AB 939) (Public Resources Code 41780)

The California Integrated Waste Management Act Requires cities and counties to prepare integrated waste management plans (IWMPs) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of the IWMP. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

Senate Bill (SB) 1016

This requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's IWMP. The CalRecycle Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source reduction and recycling element and hazardous waste element every two years.

Senate Bills 610 and 221, Water Supply Assessment and Verification

Senate Bills (SB) 610 and 221 amended State law to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability (water supply assessment or WSA) to be provided to city and county decision-makers prior to approval of specified large development projects (projects greater than 500 dwelling units, or an equivalent water demand). Both statutes require this detailed information to be included in the administrative record. Under SB 610, WSAs must be furnished to local governments for inclusion in the environmental document for certain projects, as defined in Water Code 10912, subject to the California Environmental Quality Act (CEQA). Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. The City's General Plan does not require WSAs but individual future projects within the City that are subject to SB 610 and SB 221 will require WSAs.

Statewide Water Conservation Act of 2009 (Senate Bill X7-7)

4.19 – Utilities and Service Systems

In November 2009, the California State legislature passed, and the Governor approved, a comprehensive package of water legislation, including Senate Bill (SB) X7-7 addressing water conservation. In general SB X7-7 requires a 20 percent reduction in per capita urban water use by 2020, with an interim 10 percent target in 2015. The legislation requires urban water users to develop consistent water use targets and to use those targets in their Urban Water Management Plans (UWMPs). SB X7-7 also requires certain agricultural water supplies to implement a variety of water conservation and management practices and to submit Agricultural Water Management Plans.

State Water Resources Control Board

The SWRCB, in coordination with nine Regional Water Quality Control Boards, performs functions related to water quality, including issuance and oversight of wastewater discharge permits (e.g., NPDES), other programs regulating stormwater runoff, and underground and above-ground storage tanks. The SWRCB has also issued statewide waste discharge requirements for sanitary sewer systems, which include requirements for development of a sewer system management plan (SSMP).

Title 22 of California Code of Regulations

Title 22 regulates the use of reclaimed wastewater. In most cases, only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping, and other non-agricultural irrigation. Regulation of reclaimed water is governed by the nine RWQCBs and the California Department of Public Health (CDPH).

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Section 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet (AF) annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an urban water management plan at least once every five years and submit it to the Department of Water Resources. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24 or Division 26 of the California Water Code, or receive drought assistance from the State, until the urban water management plan (UWMP) is submitted and deemed complete pursuant to the Urban Water Management Planning Act.

Regional

Los Angeles Basin MS4 Permit

Municipal separate storm sewer systems (MS4) are issued permits based on the size of the municipality. MS4 permit requirements include reduction of pollutant discharges to the “maximum extent practicable” and protection of water quality. Requirements also include identification of major outfalls and pollutant loads and control of discharges from new development and redevelopment. To address these objectives, municipalities are required to prepare stormwater management plans. Although the NPDES program does not regulate nonpoint sources of pollution, the Los Angeles Basin RWQCB has other programs in place to address nonpoint sources. The MS4 Permit also contains requirements that are necessary to improve efforts to reduce the discharge of pollutants in stormwater runoff to the maximum extent

practicable and achieve water quality standards. The stormwater management programs have been guided by the following principles:

- 1) Utilize existing municipal departments/programs to meet Permit requirements whenever possible.
- 2) Minimize duplication of effort through coordinated Permittee compliance actions.
- 3) When necessary, develop new or enhanced stormwater management programs that are both cost-effective and acceptable to the public.

The MS4 permit requires developments and redevelopments to implement Best Management Practices (BMPs) to control potential short- and long-term water pollution/pollutants. The BMPs that are required include the following programs:

- Litter, debris and trash control
- Incident response investigation and reporting
- New development and redevelopment
- Private construction activities
- Permittee activities (for sewage, streets and roads, and MS4 facilities)
- Public education and outreach
- Implementation of Total Maximum Daily Loads
- Reporting Requirements and Notifications

Los Angeles Countywide Integrated Waste Management Plan

Pursuant to AB939, the County prepared the 1996 Countywide Integrated Waste Management Plan (CIWMP) in collaboration with its cities to ensure a coordinated effort at solid waste reduction and landfilling. The CIWMP, is comprised of five key elements, the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE) and the Non-Disposal Facility Element (NDFE).

- Countywide Summary Plan: The Countywide Summary Plan contains goals and policies, as well as a summary of issues faced by the County and its cities. The Summary Plan provides steps needed for all cities to do to meet the 50% diversion mandate.
- Countywide Siting Element: The Siting Element provides evidence that there is at least 15 years of remaining capacity to hold waste for the County and its cities. If there is not adequate capacity, the Siting Element contains discussion of alternative disposal sites and additional diversion programs.
- Source Reduction and Recycling Element (SRRE): The SRRE provides analysis of the local waste stream to determine where to focus diversion efforts.
- Household Hazardous Waste Element (HHWE): The HHWE details programs that assist in recycling, treatment and disposal practices for Household Hazardous Waste programs.

4.19 – Utilities and Service Systems

- Non-Disposal Facility Element (NDFE): The NDFE goal is to identify existing and proposed waste management facilities that would require a solid waste permit to be operationally compliant.

Local

City of Whittier General Plan

The existing 1993 Whittier General Plan contains the following goals and policies related to utilities:

Land Use Element

Goal 2. Develop and maintain cohesive, clean, safe, and stable residential neighborhoods in Whittier.

Policy 2.5: Promote the development of quality housing at a variety of densities, with consideration for the environment, aesthetics, and the need for maintaining and expanding the infrastructure's capacity.

Policy 2.7: Consider the capacity of existing infrastructure and the potential demand for public services in future planning and review of new development.

Goal 3. Promote the development and maintenance of retail and service facilities which are convenient to residents of Whittier, provide the widest possible selection of goods and services, and supplement the City's tax base.

Policy 3.8: Encourage building design that promotes energy conservation and efficiency.

4.19.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the GPU would have a significant impact related to utilities and service systems if it would:

- a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- b) Have insufficient water supplies available to serve the GPU and reasonably foreseeable future development during normal, dry, and multiple dry years;
- c) Result in a determination by the wastewater treatment provider which serves or may serve the GPU that it has inadequate capacity to serve the projected demand in addition to the provider's existing commitments;
- d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- e) Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.19.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related to wastewater treatment requirements, water and wastewater treatment facilities, stormwater drainage facilities, water supplies, wastewater treatment capacity, landfill capacity, and solid waste; which could result from the implementation of the GPU and recommends mitigation measures as needed to reduce significant impacts.

IMPACT UTS-1 – Would the GPU require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Analysis of Impacts – Water

The Planning Area is served by four water providers: the City of Whittier Public Works Department Water Division; the San Gabriel Valley Water Company; Suburban Water Systems; and the Orchard Dale Water District. Most of the water supplied to the Planning Area is drawn from local groundwater aquifers - the San Gabriel Main Basin and the Coastal Plain of the Los Angeles Central Basin. The Urban Water Management Plan (UWMP) for each of the four local water serving agencies indicate the majority of the Planning Area is built out, so they do not anticipate significant population growth or increases in demand in the future. The four UWMPs are based on the land use (i.e., population and jobs) projections contained in the 1993 General Plan along with population projections provided by SCAG.

The 2021 GPU will substantially increase the projected number of housing units and the population in the City over those projected in the 1993 General Plan. Conversely, the GPU projects substantially less growth in non-residential uses (e.g., commercial, office, light industrial) compared to that projected in the 1993 General Plan. The UWMPs of the four local water serving agencies were based in large part on the land uses and growth projections of the 1993 General Plan. Therefore, the UWMPs of these agencies will need to be revised based on the new GPU land uses and projections.

2021 General Plan Update. Provided below are the applicable goals and policies from the proposed GPU regarding overall utility service - please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal MI10: Safe and reliable potable and recycled water storage and distribution systems that meet current and future needs.

Policies

MI-10.1: Identify funding for and implement the planned water system improvements identified in the City's 2018 Water System Master Plan. Update the Master Plan as needed in response to changing conditions; consider the unique needs of the Disadvantaged communities.

MI-10.2: Minimize leaks in the City's water distribution system through regular monitoring, maintenance, and mitigation.

MI-10.3: Maintain the City's water system to ensure adequate fire flows.

MI-10.4: Maintain and operate the City's water storage and distribution system to provide for rapid recovery and reliable and sufficient emergency water supplies in the event of a disaster.

MI-10.5: Ensure the Suburban Water Systems and the Cal Domestic Water Company implements improvements to their systems that provide high-quality services to the Whittier Planning Area customers.

MI-10.6: Support the efforts of water reclamation agencies to provide reclaimed water service throughout Whittier.

MI-10.7: Use reclaimed water to irrigate parks, decorative fountains, and other public open space areas.

Goal MI15: “Smart” infrastructure that creates a connected, coordinated, and responsive City.

Policies

MI-15.1: Explore opportunities for using integrated technologies and infrastructure to:

- o Improve and enhance transportation, water delivery, sewage collection, streetlight, solid waste collection, and other urban systems.

- o Connect residents and businesses with City services and programs
- o Promote economic development opportunities.

MI-15.2: Develop a “smart cities” strategy.

The Project Description indicates the Planning Area’s baseline (2019) service population (residents plus employees) equals 174,866 persons while the growth projected under the GPU would yield a future (2040) service population of 196,451 persons. If each of these additional 21,585 residents and employees consumed an additional 150 gallons per person per day¹, the City’s growth would eventually require an additional 3.2 million gallons of water per day which would need to be provided by the City and the other three serving agencies. At present, the four UWMPs serving the Planning Area do not indicate they have that additional amount of water available to them at this time.

Critical Water Supply Analysis. In addition to the general assessment above, the following analyzes the City’s projected water supply and demand to determine if there are any critical water supply issues that result from the increased population under the GPU. The City’s system is the most appropriate to analyze as it provides water service to the greatest number of people within the Planning Area². The City’s UWMP assumes 65 percent of the City’s population is within its UWMP service area for 2015 through 2040. The UWMP indicates it is based on population projections obtained from the Southern California Association of Governments (SCAG) which incorporates demographic trends, existing land use, General Plan land use policies, and input and projections from the Department of Finance (DOF) and the US Census Bureau. The City owns and operates three active wells in the Main Basin (No. 13, No. 15, and No. 16) and two active wells in the Central Basin (No. 8 and No. 14). To date the City has not experienced water supply constraints or deficiencies, and management of the City’s primary groundwater supplies is based on legal adjudications of the groundwater basins. The UWMP states the City will be able to rely on the Main Basin, the Central Basin, and recycled water for adequate supply over the next 26 years under single year and multiple year droughts based on current management practices. However, Table 4.19-1 indicates the projected population increase under the proposed GPU would exceed the 2040 population estimate upon which the UWMP projected future service. The table also shows the amount of water that could be

¹ Estimate from City UWMP

² 54 percent based on a City UWMP 2020 service population of 57,104 compared to the total Planning Area 2020 population of 106,014 persons.

consumed by the projected population under the GPU (1,580 acre-feet) would be greater than the surplus water supply for 2040 (1,187 acre-feet) estimated in the UWMP.

**Table 4.19-1
Water Supply Analysis for GPU Population**

Water-Related Characteristic	2020	2040 ¹	Difference
City-Wide Population (persons)	87,853	106,014	+18,430 / +21%
65 Percent ² of City-wide Population	57,104	68,909	+11,805 / +20.7%
City UWMP Service Area Assumption ³	56,900	59,500	+2,600 / +4.6%
UWMP Planning Surplus or Deficit ⁴	+204	+9,409	"Surplus"
Water needed to serve "surplus" population (acre-feet or AF) ⁵	+47 AF	+1,580 AF	NA
City Water Supply ⁶	9,272 AF	9,272 AF	0
City Water Demand ⁶	7,569 AF	8,085 AF	+516 AF / +6.8%
Supply Surplus or Deficit	+1,703 AF	+1,187 AF	"Surplus"
Can Water Supply meet the needs of the estimated population growth with GPU?	NA	No	
NOTES:			
1 assuming GPU is approved			
2 City UWMP estimates its water service area is 65% of City-wide population			
3 Table 3-1 from City UWMP			
4 Difference of UWMP Service Area Population compared to 65% of City-wide Population Estimate A "surplus" means the estimated population under the GPU is higher than the population estimate used for the UWMP			
5 assumes each additional person consumes 150 gallons/person/day and one AF = 236,000 gallons			
6 Table 7-2 from City UWMP			

It should also be noted the 1993 General Plan projected the Planning Area's population to be approximately 96,023 persons in 2018 and the current population of the Planning Area in 2019 was 141,102 persons. This indicates the City has outpaced the growth assumptions for the 1993 General Plan upon which the various UWMPs for the Planning Area were based. Even if the three other water suppliers could meet the future needs of the residents and businesses within their respective portions of the Planning Area, the projected deficit of the City's water supply represents a potentially significant impact that requires mitigation. Mitigation Measure UTL-1 requires new development to demonstrate it is consistent with the UWMP of the serving agency for that development.

Summary and Conclusions. The UWMPs were last prepared around 2015-16 and must be updated every five years according to state law, so they are all due to be revised in the near future. When the UWMPs are next updated, the latest projections from the GPU will need to be incorporated. Since the City only manages a portion of its water supply, it cannot fully control or mitigate the increased need for water under the GPU until the four UWMPs have been updated as planned. Until the City and other water serving agencies update their UWMPs to incorporate the new growth projections, the proposed GPU may have significant short- or long-term impacts regarding water service which may result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. In addition to the proposed GPU Goals C10 and C15 and their policies on water service, Mitigation Measure UTL-1 will help reduce potential impacts related to water service to less than significant levels.

Analysis of Impacts – Wastewater

The City of Whittier owns, operates, and maintains the wastewater collection system serving homes, businesses, and institutions within the Planning Area. In addition, approximately seven miles of private sewers and 14 miles of County Sanitation Districts of Los Angeles County (LACSD or Districts) trunk sewers traverse the Planning Area. The City's wastewater system conveys wastewater into the LACSD trunk sewer at various locations throughout the Planning Area. Once in the LACSD trunk sewer system, the wastewater is conveyed to the LACSD wastewater treatment plant for treatment and disposal. The LACSD is a partnership of 24 independent special districts that serve the wastewater and solid waste management needs of approximately 5.5 million people in Los Angeles County. The LACSDs' service area covers approximately 824 square miles and encompasses 78 cities and unincorporated territory within the County (LACSD 2021).

The LACSD (or Districts) provided the following information regarding sewerage service to Whittier in their NOP response letter dated May 19, 2021:

“The City of Whittier (City) is located within the jurisdictional boundaries of Districts Nos. 2, 15, and 18. The Districts own, operate, and maintain the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City except to state that presently no deficiencies exist in Districts' facilities that serve the City. For information on deficiencies in the City sewerage system, please contact the City Department of Public Works and/or the Los Angeles County Department of Public Works.

The Districts should review individual developments within the City to determine whether or not sufficient trunk sewer capacity exists to serve each project and if Districts' facilities will be affected by the project.

The wastewater generated by the City is treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 259.7 mgd, or the Los Coyotes Water Reclamation Plant located in the City of Cerritos, which has a capacity of 37.5 mgd and currently processes an average flow of 21.3 mgd.

In order to estimate the volume of wastewater a project will generate, go to www.lacsd.org, under Services, then Wastewater Program and Permits, select Will Serve Program, and scroll down to click on the Table 1, Loadings for Each Class of Land Use link for a copy of the Districts' average wastewater generation factors.

The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is used by the Districts to upgrade or expand the Sewerage System. Payment of a connection fee may be required before a project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development.

In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the 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 CCA. 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."

It should be noted the SCAG growth forecasts are based on the adopted land use plans and densities of the cities and communities within their service area. For the City of Whittier, "adopted land use plan" is the 1993 General Plan.

In 2006, the LACSD created a Master Facilities Plan (MFP) for the Joint Outfall System (JOS), a regional wastewater management system serving 5 million people in 73 cities and unincorporated areas of Los Angeles County. The MFP evaluated the LACSD infrastructure and facilities through the year 2050 (LACSD 2021). The City's master plan of sewers is based on regional projections by SCAG and the state as well as the land uses and growth projections of the 1993 General Plan. Similarly, the LACSD master plans for sewer and wastewater service are based on SCAG projections as well as the land uses and growth projections in the general plans of the various partner agencies of the LACSD, including the City of Whittier.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal MI11: Reliable local wastewater collection facilities that support established needs, as well as the City's economic development goals and plans for new housing.

MI-11.1: Identify funding for and implement the planned sewer system improvements identified in the City's 2018 Sewer System Master Plan. Update the Master Plan as needed in response to changing conditions, including the addition of Accessory Dwelling Units (ADUs) and the unique needs of the Disadvantaged communities.

MI-11.2: Prioritize planned sewer system improvements in areas where growth will be focused and where the system has the most need.

MI-11.3: Conduct a study to determine how new development is to pay its fair share of sewer system improvements.

MI-11.4: Proactively conduct system inspection and cleaning.

MI-11.5: Minimize groundwater infiltration and inflow to the wastewater collection system to maintain sufficient peak wet-weather capacity.

Goal MI15: "Smart" infrastructure that creates a connected, coordinated, and responsive City.

Policies

MI-15.1: Explore opportunities for using integrated technologies and infrastructure to:

4.19 – Utilities and Service Systems

o Improve and enhance transportation, water delivery, sewage collection, streetlight, solid waste collection, and other urban systems

o Connect residents and businesses with City services and programs o Promote economic development opportunities.

MI-15.2: Develop a “smart cities” strategy.

The Project Description indicates the Planning Area’s baseline (2019) service population (residents plus employees) equals 174,866 persons while the growth projected under the GPU would yield a future (2040) service population of 196,451 persons. If these additional 21,585 residents and employees generated an additional 75 gallons per person per day of wastewater³, the City’s growth would eventually generate approximately 1.6 million gallons per day of wastewater that would need to be conveyed and treated via LACSD facilities.

The LACSD Joint Water Pollution Control Plant (JWPCP) has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 259.7 mgd, and the Los Coyotes Water Reclamation Plant (LCWRP) has a capacity of 37.5 mgd and currently processes an average flow of 21.3 mgd. The additional projected wastewater generated by growth under the GPU would represent 0.9 percent of the JWPCP excess capacity⁴ of 140.3 mgd or 8 percent of the LCWRP excess capacity¹ of 16.2 mgd.

The City’s master sewer plan was last updated in 2018 and the LACSD MFP and other regional master plans have been updated over the past decade. When these master planning documents are next updated, the latest projections from the GPU will be incorporated. The LACSD has indicated it bases its service needs on regional growth projections which incorporate in part the general plans of their served agencies including the City of Whittier. The additional wastewater generated by future growth under the GPU (1.6 mgd) is within the excess capacity of the regional treatment facilities. Therefore, potential impacts of the GPU on wastewater conveyance and treatment are considered to be less than significant. No significant short- or long-term impacts regarding wastewater service are expected that would result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects.

Analysis of Impacts-Stormwater Drainage

The City maintains its own local storm drain system but the regional storm drain system that serves the Planning Area is operated by LACFCD. Stormwater endpoint discharge is the Pacific Ocean via the San Gabriel River and its tributaries. The San Gabriel River is impaired by pollutants including toxic metals carried by stormwater mainly from roads and parking lots. The City is as a co-permittee in the Los Angeles County’s National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit.

The LACFCD’s master plans for storm drainage are based in part on the land uses and growth projections in the general plans of the various partner agencies of the LACFCD, including the City of Whittier. However, a key consideration is the degree to which the LACFCD service area is already fully developed and covered with impervious surfaces. Changes in the type or intensity of local land uses plays a lesser part in creating additional runoff and stormwater pollution. Accordingly, the majority of the Planning Area is already built out (Whittier, 2017).

³ LACSD website

⁴ Plant capacity minus average flow

The growth projections of the proposed GPU are different than those of the 1993 General Plan but it is overly speculative at this time to predict specifically how the increases in projected housing and population and the decrease in non-residential development would affect area runoff and the regional storm drain system. The LACFCD master storm drain plans affecting Whittier may eventually be revised if necessary based on the new GPU land uses and projections.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal MI12: An integrated local stormwater management system that guards against urban flooding and provides for the “greening” of Whittier.

Policies

MI-12.1: Maintain the capacity and condition of local storm drains to accommodate all but extreme weather events.

MI-12.2: Ensure the ability of regional stormwater collection facilities to accommodate flows from Whittier’s stormwater collection system through coordination with the Los Angeles County Department of Public Works.

MI-12.3: Incorporate Low Impact Development (LID) approaches into the design and upgrades of public stormwater infrastructure, including bioswales, pervious pavement, and other types of bioretention cells.

The County manages regional stormwater facilities and regularly updates its master plans based on regional population projections as well as the general plans of its served agencies including the City of Whittier. Based on the County’s master planning and the City’s proposed policies to reduce future offsite runoff, potential impacts related to stormwater conveyance will be less than significant. The GPU will not have significant short- or long-term impacts regarding stormwater collection and disposal service and will not result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects.

Analysis of Impacts-Energy and Telecommunications

Electrical services to the Planning Area are provided by Southern California Edison (SCE) and natural gas is provided by the Southern California Gas Company (SCGC). Telecommunication services would be provided by Time Warner, Charter Spectrum, AT&T, Verizon, or other service providers in the area. Each of these companies have their own master service plans in terms of regional and local electrical lines, gas pipelines, and telecommunications cables. These master plans are based in part on the land uses and growth projections in the general plans of the various jurisdictions within the particular service area.

The growth projections of the proposed GPU are different than those of the 1993 General Plan and the increases in projected housing and population and the decrease in non-residential development may have incremental impacts on electrical, natural gas, or telecommunications services in the Planning Area.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal MI13: Reliable, unobtrusive, and eco-friendly energy systems.

Policies

MI-13.1: Ensure that improvements to and maintenance of electric power and natural gas transmission and distribution systems be performed in a manner that maintains safety and reliability and that implements City environmental goals.

MI-13.2: Focus on purchasing electricity from renewable sources through continued participation in appropriate organizations and alliances.

MI-13.3: Accommodate alternative energy infrastructure (such as wind and solar) as new technology evolves.

MI-13.4: Ensure that pipeline owners protect and maintain underground high-pressure pipelines consistent with applicable laws through coordination and working with responsible federal and State agencies.

MI-13.5: Require new development projects to underground utilities and provide utility upgrades/replacements, as appropriate.

Goal MI14: Communications technologies that facilitate efficient and affordable access for everyone in Whittier, provide broad benefits, and integrate well into the urban environment.

Policies

MI-14.1: Ensure that residents, businesses, and institutions in the City have choices regarding communications service providers.

MI-14.2: Explore ways to provide easy access to wireless communications services in public spaces.

MI-14.3: Identify local Disadvantaged communities that may be underserved by wireless communications services due to cost or poor service coverage, and work with service providers and others to improve that access.

MI-14.4: Minimize the visual impacts of communications infrastructure.

MI-14.5: Ensure that the City receives sufficient revenues and other benefits from the private use of public infrastructure and facilities for the installation of small cell and similar technologies.

The various organizations that provide energy and telecommunication services to the City regularly review and update their service network based on population and land use changes. In addition, the proposed GPU Goals M13 and M14 and their policies will help enhance energy and communications systems services to the City in the future. Therefore, the proposed GPU will have less than significant impacts in regard to those services.

UTS-1 SUMMARY. Based on the above analysis, the proposed GPU may have potentially significant impacts on water consumption in the future but impacts to sewer/wastewater

treatment, storm drainage, and other utility services in the Planning Area are expected to be less than significant. Mitigation Measure UTL-1 is proposed to reduce potential impacts to future water demand. Therefore, the GPU will not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

UTL-1 Water Demand Management. New developments under the General Plan Update that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plan for the involved local water provider.

Level of Significance After Mitigation

Less than significant.

Water Supply

IMPACT UTS-2 – Would the GPU have insufficient water supplies available to serve the GPU and reasonably foreseeable future development during normal, dry, & multiple dry years?

Analysis of Impacts

The previous Section IMPACT UTS-1 analyzed potential impacts related to water supplies for the Planning Area which is served by four water providers: the City of Whittier Public Works Department Water Division; the San Gabriel Valley Water Company; Suburban Water Systems; and the Orchard Dale Water District. Most of the water supplied to the Planning Area is drawn from local groundwater aquifers - the San Gabriel Main Basin and the Coastal Plain of the Los Angeles Central Basin. The Urban Water Management Plan (UWMP) for each of the four local water serving agencies indicate the majority of the Planning Area is built out, so they do not anticipate significant population growth or increases in demand in the future. The four UWMPs are based on the land use (i.e., population and jobs) projections contained in the 1993 General Plan.

The 2021 GPU will substantially increase the projected number of housing units and the population in the City over those projected in the 1993 General Plan. Conversely, the GPU projects substantially less growth in non-residential uses (e.g., commercial, office, light industrial) compared to that projected in the 1993 General Plan. The UWMPs of the four local water serving agencies were based on the land uses and growth projections of the 1993 General Plan.

The Project Description indicates the Planning Area's baseline (2019) service population (residents plus employees) equals 174,866 persons while the growth projected under the GPU would yield a future (2040) service population of 196,451 persons. If these additional 21,585 residents and employees consumed an additional 150 gallons per person per day of water, the City's growth would eventually require an additional 3.2 million gallons of water per day which would need to be provided by the City and the other three serving agencies. At present, the four UWMPs serving the Planning Area do not indicate they have that additional amount of water

available to them at this time. IMPACT UTS-1 also provided a “critical water supply analysis” that demonstrated future water supplies within the City may not be adequate for growth projected under the proposed GPU. That section also recommended implementation of Mitigation Measure UTL-1 to limit future demand on local water supplies that were not identified in the UMWP serving that development.

As outlined in Section IMPACT UTS-1 above, GPU Goals 10 and 15 relate to water supply and local suppliers.

The UWMPs were last prepared around 2015-16 and must be updated every five years according to state law, so they are all due to be revised in the near future. When the UWMPs are next updated, the latest projections from the GPU will need to be incorporated. Since the City only manages a portion of its water supply, it cannot fully control or mitigate the increased need for water under the GPU until the four UWMPs have been updated as planned. Until the City and other water serving agencies update their UMWPs to incorporate the new growth projections, the proposed GPU may have significant short- or long-term impacts regarding water supply for reasonably foreseeable future development during normal, dry, and multiple dry years. In addition to the proposed GPU Goals C10 and C15 and their policies on water service, Mitigation Measure UTL-1 is recommended to help assure future water demand does not exceed available or planned water supplies within the Planning Area.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

UTL-1 Water Demand Management. New developments under the General Plan Update that will be served by local water utility providers will not be approved if they increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plan for the involved local water provider.

Level of Significance After Mitigation

Less than significant.

Wastewater Treatment Capacity

IMPACT UTS-3 – Would the GPU result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

Analysis of Impacts

The previous Section IMPACT UTS-1 analyzed potential impacts related to wastewater services for the Planning Area and provided information from the Los Angeles County Sanitation Districts (LACSD or Districts). The City’s sewer pipes convey wastewater into the LACSD trunk sewers at various locations throughout the Planning Area. The wastewater is then conveyed to the LACSD wastewater treatment plants for treatment and disposal (LACSD 2021). In 2006, the LACSD created a Master Facilities Plan (MFP) for the Joint Outfall System (JOS), a regional wastewater management system serving 5 million people in 73 cities and unincorporated areas of Los Angeles County. The MFP evaluated the LACSD infrastructure and facilities through the year 2050 (LACSD 2021).

The LACSD master plans for wastewater treatment and disposal services are based on the land uses and growth projections in the general plans of the various partner agencies of the LACSD, including the 1993 City of Whittier General Plan. The growth projections of the proposed GPU are substantially different than those of the 1993 General Plan. As outlined in Section IMPACT UTS-2 above, GPU Goals 11 and 15 relate to wastewater conveyance and treatment.

The Project Description indicates the Planning Area's baseline (2019) service population (residents plus employees) equals 174,866 persons while the growth projected under the GPU would yield a future (2040) service population of 196,451 persons. If these additional 21,585 residents and employees generated an additional 75 gallons per person per day of wastewater, the City's growth would eventually generate approximately 1.6 million gallons per day of wastewater that would need to be conveyed and treated via LACSD facilities.

The LACSD Joint Water Pollution Control Plant (JWPCP) has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 259.7 mgd, and the Los Coyotes Water Reclamation Plant (LCWRP) has a capacity of 37.5 mgd and currently processes an average flow of 21.3 mgd. The additional projected wastewater generated by growth under the GPU would represent 0.9 percent of the JWPCP excess capacity⁵ of 140.3 mgd or 8 percent of the LCWRP excess capacity¹ of 16.2 mgd.

The City's master sewer plan was last updated in 2018 and the LACSD MFP and other regional master plans have been updated over the past decade. When these master planning documents are next updated, the latest projections from the GPU will be incorporated. The anticipated additional wastewater from GPU growth is well within the identified excess capacity of the regional wastewater treatment facilities. Therefore, the proposed GPU will not result in significant short- or long-term impacts regarding wastewater service that could result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Landfill Capacity

IMPACT UTS-4 – Would the GPU generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Analysis of Impacts

There are two solid waste collection providers serving the Planning Area that transport all of the Planning Area's residential and commercial waste to Material Recovery Facilities (MRFs) where recyclable materials are sorted and then diverted from local landfills. The Savage Canyon Landfill is located in and operated by the City of Whittier and only accepts waste generated from the City and its contract haulers. The landfill has a remaining capacity of 9,510,833 cubic yards and an estimated closure date of December 31, 2055 (CalRecycle, 2020). The City currently complies with the waste reduction requirements of AB 341 (Whittier, 2017).

⁵ Plant capacity minus average flow

The growth projections of the proposed GPU are substantially different than those of the 1993 General Plan, but the increases in projected housing and population and the decrease in non-residential development may have impacts on the remaining life of the local landfill.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Mobility and Infrastructure Element

Goal MI15: Use “Smart” infrastructure to create a connected, coordinated, and responsive City.

Policies

MI-15.1: Explore opportunities for using integrated technologies and infrastructure to:

- o Improve and enhance transportation, water delivery, sewage collection, streetlight, solid waste collection, and other urban systems
- o Connect residents and businesses with City services and programs
- o Promote economic development opportunities

MI-15.2: Develop a “smart cities” strategy

The City will implement the proposed GPU Goal C15 and its polices and continue to implement waste reduction laws and regulations within the City. In addition, the County will continue to manage regional landfill capacity for all of its served agencies including the City of Whittier. The County bases its long-term solid waste disposal needs on regional and state population projections and updates its master planning as needed to accommodate future need. Therefore, the proposed GPU would not have significant short- or long-term impacts regarding solid waste disposal in the Planning Area.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Solid Waste

IMPACT UTS-5 – Would the GPU comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Analysis of Impacts

The City currently complies with the waste reduction requirements of AB 341 (Whittier, 2017). The growth projections of the proposed GPU are different than those of the 1993 General Plan, but residents of the increased housing and employees of future non-residential development will continue to comply with established solid waste reduction programs. In addition, the City is required by comply with state laws regarding source reduction and recycling.

The City will continue to comply with established laws and regulations regarding solid waste minimization and recycling. Therefore, the proposed GPU will not interfere with the City’s

compliance with federal, state, and local management and reduction statutes and regulations related to solid waste.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

IMPACT UTS-6 – Would the GPU cause substantial adverse cumulative impacts with respect to Utilities and Service Systems?

Analysis of Impacts

The “universe” for consideration of cumulative impacts for the GPU is the portions of east Los Angeles and northwest Orange County surrounding the City of Whittier. Local groundwater is provided to residents and businesses in the region by dozens of local water districts and companies who must maintain UWMPs or similar long-range plans for service including under drought conditions. Regional sewer, wastewater, and storm drain systems are operated by the LACSD which maintains a number of long-range master plans for these services. Energy services in this region are provided by mainly two large private companies, while telecommunications services are provided by a large number of private companies of various sizes. Solid waste disposal is managed on a regional scale by the County via a series of landfills and collection services from dozens of MRFs spread throughout the region. Most utility master plans are based on the general plans of the cities within their particular service area like the City of Whittier.

The growth projections of the proposed GPU are different than those of the 1993 General Plan, and it is possible the increases in projected housing and population and the decrease in non-residential development may have adverse impacts on water demand but are not expected to have significant impacts on sewer/wastewater, storm drainage, energy, telecommunications, or solid waste infrastructure and service providers in the region. All of the local jurisdictions within the surrounding region have policies like Policy 2.7 of the 1993 Whittier General Plan which requires the capacity of existing infrastructure and the potential demand for public services be considered in future planning and review of new development.

Once the GPU is adopted, its growth projections will be incorporated as appropriate into the various master plans of the agencies and companies providing utility services to the City. In addition, the City will implement Mitigation Measure UTL-1 to help limit future water demand on local water serving agencies. Therefore, the proposed GPU will not have cumulative impacts on regional utility services.

Level of Significance Before Mitigation

Less than significant (except for water supply).

Mitigation Measures

see UTL-1 (limits future water demand)

4.19.5 REFERENCES

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4.20 – Wildfire

This section describes the potential for wildfire on lands located in or near State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zones by the California Department of Forestry and Fire Protection (CAL FIRE). In addition, it discusses potential impacts of the proposed General Plan Update (GPU) on wildfire hazards, including potential impacts on emergency response or emergency evacuation plans, exacerbation of wildfire risks and exposure to pollutants, and impacts to people or structures as a result of runoff, post-fire slope instability, or drainage changes.

4.20.1 – ENVIRONMENTAL SETTING

Climate

The Planning Area is located between the Los Angeles Basin to the south and the San Gabriel Valley to the north and maintains a Mediterranean climate characterized by hot summers and mild winters. Los Angeles County and the broader Los Angeles Basin are defined by a semi-arid, Mediterranean climate with mild winters and warm summers. The San Gabriel, San Bernardino, and San Jacinto Mountains bound the Basin to the north and east trap ambient air and pollutants within the Los Angeles and Inland Empire valleys below. The climate of the Los Angeles region is classified as Mediterranean, but weather conditions within the basin are dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This pattern is occasionally interrupted by extremely hot temperatures during the summer, Santa Ana winds during the fall, and storms from the Pacific northwest during the winter. In addition to the basin's topography and geographic location, El Niño and La Niña patterns also have large effects on weather and rainfall received between November and March.

The City's average temperatures range from a high of 89.7 degrees Fahrenheit (°F) in August to a low of 47.2 degrees °F in December. Annual precipitation is approximately 14.33 inches, falling mostly from December through March (WRCC, 2020). Elevations in the Planning Area range from 150 to 1,417 feet above mean sea level (AMSL). The Planning Area's southern portion has the lowest elevation and this area is almost completely developed. The northern portion of the Planning Area steadily increases in elevation toward the Puente Hills to the northeast. The Puente Hills Preserve extends from 400 to 1,417 feet AMSL and its terrain varies from moderate to very steep slopes covered in dense vegetation (Whittier, 2017).

Wind Patterns

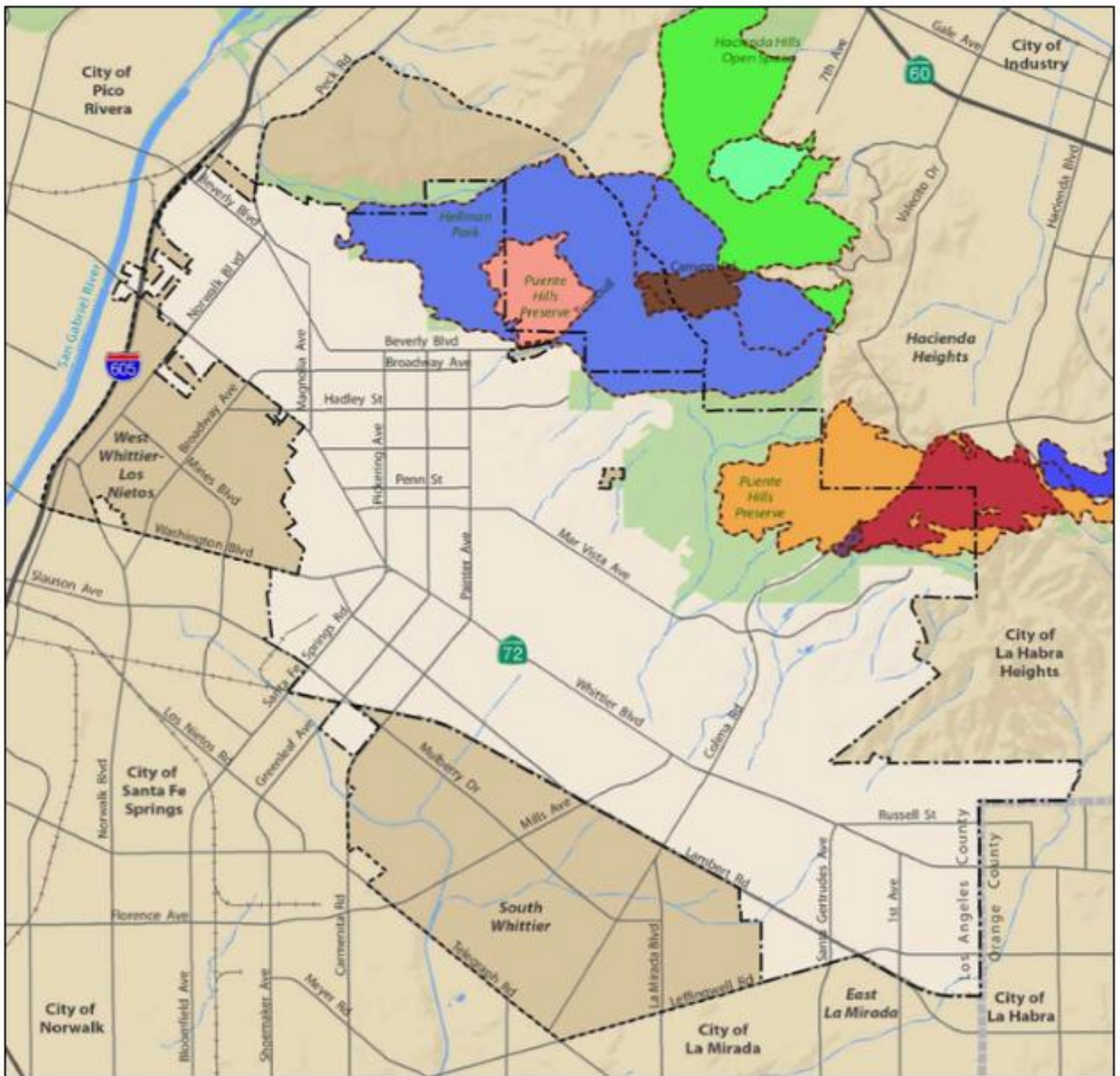
The Pacific high-pressure system drives the prevailing winds in the basin. The winds tend to blow onshore in the daytime and offshore at night. High winds can cause property damage and pose health risks, especially during the fire season. In addition to the typical regional wind patterns in the region, Santa Ana winds represent a particularly strong, dry wind hazard. Santa Ana winds are katabatic meaning they develop as winds descend through mountain passes where they accelerate, dry out, and heat up. This occurs in the Planning Area which is located between the Los Angeles Basin to the south and the San Gabriel Valley to the north. This area experiences strong Santa Ana winds due to its topography and location relative to the San Gabriel Mountains to the north and the San Bernardino Mountains to the east.

Wildland Urban Interface and Fire Hazards Severity Zones

The Wildland Urban Interface (WUI) is the transition zone between areas of native vegetation and developed areas. Communities in WUI lands are particularly susceptible to catastrophic wildfire risk. In Los Angeles County, wildland fires historically have occurred on the brush-covered hills within many communities. While the Puente Hills frame the Planning Area's picturesque backdrop, they also create an urban wildfire hazard risk. In addition to the urban fire potential, wildfires in the hills are an ever-present concern- especially when fueled by shrub growth, occasional Santa Ana winds, and high temperatures. Since 2007, two notable fires have occurred within the Planning Area and seven other have been documented in the Puente Hills since 1967. Exhibit 4.20-1 (Historic Wildfire Perimeters) shows the location of fires within and near the Planning Area since 1967. CAL FIRE prepares maps that identify Fire Hazard Severity Zones (FHSZs). As shown in Exhibit 4.20-2 (Wildfire Hazards), several of the foothill neighborhoods, along with other communities located in Puente Hills, are designated "Very High Fire Hazard Severity (VHFS) Zones by Los Angeles County. Developments within this zone are subject to the County's fuel modification plans. The Los Angeles County Fire Department provides firefighting services to Whittier's portion of the Local Responsibility Area (LRA) and reviews fuel modification plans.

State Responsibility Areas

State Responsibility Areas (SRA) designate those areas where CAL FIRE has responsibility for wildland fire protection. SRAs do not include lands that are within city boundaries or within federally owned lands. SRAs are present in the Puente Hills in the northeast portion of the Planning Area. These areas fall within the State's Los Angeles County Operational Unit.



Historic Fire Perimeter

- Colima, 2010
- Skyline, 2007
- Turnbull, 1989
- Turnbull Canyon, 1981
- Catalina, 1979
- Colima, 1970
- Hacidenda, 1970
- Old Canyon, 1968
- Turnbull II, 1967

Base Map Features

- Whittier City Boundary
- Whittier Sphere of Influence
- County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies
- Open Space/Natural Areas



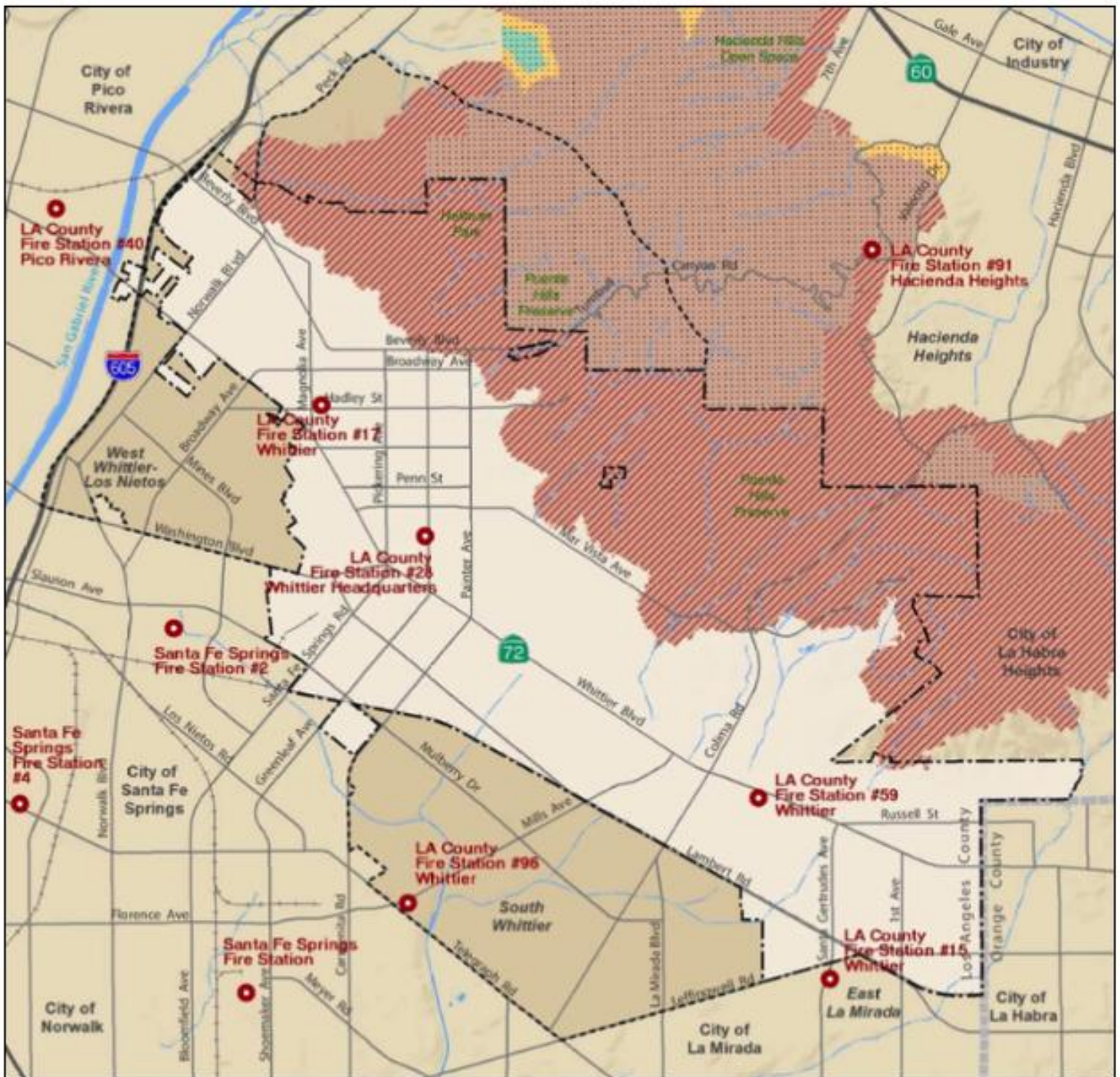
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Exhibit 4.20-1 Historic Wildfire Perimeters

Whittier General Plan Update
Whittier, California



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Base Map Features

- Whittier City Boundary
- - - - - Whittier Sphere of Influence
- ||||| County Boundary
- Major Streets
- Freeways
- Railroads
- River and Creeks
- Waterbodies

Fire Hazard Severity Zones

- Very High
- High
- Moderate
- State Responsibility Area (LRA)
- Local Responsibility Area (LRA)
- Fire Stations



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Exhibit 4.20-2 Wildfire Hazards
Whittier General Plan Update
 Whittier, California

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4.20.2 – REGULATORY FRAMEWORK

State

CALFIRE, Office of the State Fire Marshal (CAL FIRE-OSFM)

The Office of the State Fire Marshal evaluates and provides technical assistance for the Hazardous Material Management Plan (HMMP), the Hazardous Materials Inventory Statement (HMIS) and the Aboveground Petroleum Storage Act (APSA) Programs.

California Fire Code

The City of Whittier has adopted the 2019 California Fire Code, with amendments to address specific local conditions and needs. These provisions include construction standards and fire hydrant requirements, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. specifications for exterior materials and construction methods for structures located in the wildland-urban interface (WUI). These regulations pertain to any new building located within a Local Agency ‘Very High Fire Hazard Severity Zone’ or within a State Responsible ‘Moderate’, ‘High’, or ‘Very High Fire Hazard Severity Zone’.

Local

City of Whittier General Plan

The Public Safety Element of the current 1993 General Plan contains the following goals and policies regarding urban and wildfire risks for the City:

Goal 1.0: Promote an environment that is reasonably safe from hazards so that Whittier residents may conduct their daily lives free from fear and apprehension.

Policies

Policy 1.1: Continue to work for the highest quality of fire, police, and health protection possible for all Whittier residents.

Policy 1.2: Continue to cooperate with public agencies and support service providers to develop emergency preparedness programs to reduce injury, loss of life, and property damage.

Policy 1.3: Continue to provide fast, efficient, and reliable assistance to disaster victims and to areas where conditions warrant evacuation of people and property.

Policy 1.4: Promote emergency preparedness through public education and awareness programs on safety, earthquake preparedness, crime prevention, and fire and hazard protection.

Policy 1.5: Promote the study, adoption, and review of regulations designed to assure appropriate and safe development in hazardous areas.

Policy 1.6: Periodically review the City’s emergency equipment and shelters to ensure that they are adequate to meet the needs of changing land uses and development types.

Goal 3.0: Maintain and enhance safety and emergency services in the City.

Policies

Policy 3.1: Coordinate fire protection services with the County Fire Department.

Policy 3.2: Maintain an adequate emergency response system.

Policy 3.3: Assist the police and fire departments in monitoring the safety of all developments in the City.

Policy 3.4: Continue to maintain fire safety through building inspections, weed abatement, and other programs.

Policy 3.5: Provide adequate fire and police services for new developments in the planning area.

City of Whittier Natural Hazards Mitigation Plan

The City has adopted a Natural Hazards Mitigation Plan which provides natural hazard mitigation strategies to reduce the impacts concentrated at large employment and industrial centers, public infrastructure, and critical facilities. The measures were created to be integrated into future building code updates and General Plan Safety Element updates. The mitigation measures are therefore implemented by conformance with the building code and regulation.

4.20.3 – SIGNIFICANCE THRESHOLDS

Per the CEQA Guidelines, implementation of the General Plan Update would have a significant impact related wildfire if the project would be located in or near state responsibility areas or lands classified as very high hazard severity zones, would the project:

- a) Substantially impair an adopted emergency response plan or emergency evacuated plan?
- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- c) Require the installation or maintenance of associated infrastructure such as roads fuel breaks, emergency water sources, power lines or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? sensitive receptors to substantial pollutant concentrations; or

4.20.4 – IMPACTS AND MITIGATION MEASURES

This section describes potential impacts related wildfires which could result from the implementation of the project and recommends mitigation measures as needed to reduce significant impacts.

Emergency Response Plans

Impact Wil-1 – Would the GPU substantially impair an adopted emergency response plan or emergency evacuation plan?

Analysis of Impacts

As described in the Whittier Natural Hazards Mitigation Plan, all major public streets serve as principal evacuation routes including: Whittier Boulevard, Lambert Road, Santa Fe Springs Road, La Mirada Boulevard/ Colima Road, Norwalk Boulevard, Beverly Boulevard, and Interstate 605 (I-605) (Whittier, 2015). These principal access ways are all well-maintained and

will function as evacuation routes. In any disaster warranting evacuation, the exact emergency routes used would depend on a number of variables, including the type, scope, and location of the incident. The City also maintains a detailed Emergency Operations Plan (EOP). The EOP is reviewed annually and approved by the federal government every five years. The EOP establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts for the various emergency staff utilizing the State's Standardized Emergency Management System and National Incident Management. Further, City of Whittier Municipal Code Section 15.12.050 (Very High Fire Hazard Severity Zone) requires that where a very high fire hazard severity zone has been established by the city council, the following construction and property maintenance standards shall be in effect within such zone:

- A. **Roof Covering.** For all new construction, or when an existing structure has fifty percent or more of its roof covering replaced within a one-year period, a Class "A" or equivalent roof covering assembly shall be installed.
- B. **Spark Arrester.** At the outlet of every chimney or stovepipe attached to any fireplace, stove, or other device that burns solid or liquid fuel, a screen shall be provided and maintained in accordance with the provisions of the Uniform Building Code.
- C. **Clearance of Brush and Other Flammable Vegetation.** Properties shall be maintained clear of brush and other flammable vegetation in accordance with the requirements of Section 51182, et seq., of the Government Code of the state, and the fire code. Abatement shall be in accordance with the provisions of Chapter 8.08.

The existing Safety Element of the General Plan contains Goals 1 and 3 and their policies would assure future development would not conflict with emergency planning or evacuation.

2021 General Plan Update. The Public Safety, Noise, and Health Element of the proposed GPU contains goals and policies that would continue protection of residents and properties with emergency response plans and adequate emergency access. Provided below are the applicable goals and policies from the proposed GPU related to emergency or evacuation plans - please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 1: A resilient community well prepared to minimize risks associated with natural hazards and disasters.

Policies

PSHN-1.1: Provide public education to promote community awareness and preparedness for self-action in the event of a major disaster or emergency.

PSHN-1.2: Promote improved inter-jurisdictional consultation and communication regarding disaster or emergency plans of Los Angeles and Orange Counties, and for seismic safety upgrades of public facilities and infrastructure such as dams, reservoirs, and highway structures.

PSHN-1.3: Partner with neighboring cities, regional agencies, local school districts, Whittier College, local businesses, and community organizations to conduct emergency and disaster preparedness exercises that test operational and emergency response plans.

PSHN-1.4: Ensure operational readiness of the Emergency Operations Center (EOC) by conducting annual training for staff and maintaining, testing, and updating equipment to meet current standards.

PSHN-1.5: Train and educate public volunteers in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

Goal 3: Reduced risk of fire and minimized consequences from fire events.

Policies

PSHN-3.1: Prevent fires by conducting routine inspections, incorporating fire safety features in new development, and educating the public to take proactive action to minimize fire risks.

PSHN-3.2: Ensure that the City has adequate Fire Department resources (fire stations, personnel, and equipment) to meet response time standards, keep pace with growth, and provide a high level of service to the community.

PSHN-3.3: Enforce fire standards and regulations in the course of reviewing building plans and conducting building inspections.

PSHN-3.4: Require new development projects to have adequate water supplies to meet the fire-suppression needs of the project without compromising existing fire suppression services to existing uses.

PSHN-3.5: Maintain code enforcement programs that require private and public property owners to minimize fire risks by maintaining buildings and properties to prevent blighted conditions, removing excessive or overgrown vegetation (e.g., trees, shrubs, weeds), and removing litter, rubbish, and illegally dumped items from properties

General Plan Analysis. While it is possible that there may be temporary and limited circulation changes that may be required during discrete periods of time associated with specific construction projects, these changes would be temporary and would be of a nature that still allowed evacuation in the event of an emergency. Emergency access would be maintained to all properties within the project limits and the surrounding vicinity during construction. Potential adverse impacts on emergency access would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Prevailing winds

Impact Wil-2 – Would the GPU result in impacts due to slope, prevailing winds, and other factors, exacerbating wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Analysis of Impacts

Generally, the greatest potential for wildfire hazards occurs in areas adjacent to abundant natural vegetation. Several of the foothill and hillside neighborhoods of the Planning Area, along

with other communities located in the Puente Hills, are designated “Very High Fire Hazard Severity” (VHFS) Zones by Los Angeles County. Developments within this zone are subject to the County’s fuel modification plans. The Los Angeles County Fire Department provides firefighting services to Whittier’s portion of the Local Responsibility Area (LRA) and reviews and approves fuel modification plans (Whittier, 2017 & DFFP, 2020).

The Puente Hills Habitat Preservation Authority (Habitat Authority) restores and manages open space in the Puente Hills, including implementing wildfire preparedness training. The Habitat Authority contracts with the Mountains Recreation and Conservation Authority (MRCA) to provide ranger services who are trained as wildland firefighters. During fire season, fire patrol ranger units stand ready to extinguish fires and protect structures. In partnership with the Los Angeles County Fire Department, the MRCA has developed an Emergency Response Map to provide firefighters with pertinent information about the Puente Hills Preserve to be used at Incident Command, such as locations of drivable trails/roads, sensitive habitat, helipads, and gates. Additionally, the Habitat Authority actively conducts fuel modification for defensible space, removes dead and flammable trees within modification zones and has conducted habitat restoration with the goal of removing flammable vegetation and replacing it with less combustible native plants.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 5: A community that proactively prevents wildfires and protects life, property, infrastructure, and habitats from wildfire impacts.

Policies

PSHN-5.1: Minimize new residential development within the Very High Fire Hazard Severity Zones.

PSHN-5.2: Require special on-site fire protection measures to be specified during project review for areas where wildfire hazards potential exists, specifically areas of hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, and/or excessively dry brush.

PSHN-5.3: Ensure new development adheres to California Government Code sections 51175 to 51189 related to Very High Fire Hazard Severity Zones, all requirements in the California Building Code and California Fire Code, and the Board of Forestry and Fire Protection Fire Safe Regulations.

PSHN-5.4: Regulate and enforce the installation of fire protection water system standards for all new construction projects within Very High Fire Hazard Severity Zones, including the installation of fire hydrants providing adequate fire flow, fire sprinkler, or suppression systems.

PSHN-5.5: Require new development within Very High Fire Hazard Severity Zones to include a fire protection plan that addresses landscape/fuel modification installation, incorporates open areas to complement defensible spaces, identifies possible refuge areas, and maps multiple ingress and egress routes.

PSHN-5.6: Require new development within Very High Fire Hazard Severity Zones to provide pre-plans for fire risk areas that address resident evacuation and ways to effectively

communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress.

PSHN-5.7: Require new development within and adjoining Very High Fire Hazard Severity Zones to prepare a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

PSHN-5.8: Require new development, and as feasible with existing development, to provide long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks within Very High Fire Hazard Severity Zones.

PSHN-5.9: Conduct a survey of existing residential structures within the Very High Fire Hazard Severity Zones to identify non-conforming buildings related to fire safety standards and consult with property owners to bring those properties into compliance with the most current building and fire safety standards.

PSHN-5.10: Identify at-risk populations that would be vulnerable during wildfire evacuations.

PSHN-5.11: Identify measures to preserve undeveloped ridgelines to reduce fire risk and improve fire protection.

PSHN-5.12: Locate essential public facilities out of high-risk, wildfire-prone areas unless additional mitigation measures are put into place above the minimum fire protection standards.

PSHN-5.13: Collaborate with the regional fire agencies and the Puente Hills Landfill Habitat Preservation Authority on different strategies available to maintain diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

General Plan Analysis. The proposed land use plan of the General Plan Update designates the Puente Hills as permanent open space and precludes any development in these areas. Safety Policy PSHN-5.13 indicates the City will collaborate with the regional fire agencies and the Puente Hills Landfill Habitat Preservation Authority to develop effective strategies that will provide the Puente Hills with adequate fire protection while still maintaining diverse plant composition (i.e., habitat diversity) and while still being able to thin out combustible vegetation and maintain fuel breaks without permanently damaging native habitat. In addition, Goal 5 and its policies specifically address the location, design, and protection of new development in very high fire zones which includes the foothills of the Puente Hills and areas designated as Hillside Residential (H-R) zone within the City. Compliance with these goals and policies, and the City Fire Department's development review process for new development, will help minimize the potential for impacts related to wildfires and subsequent downhill or downstream impacts, including exposure to air pollutants.

Summary and Conclusions. Therefore, the GPU would not result in impacts due to slope, prevailing winds, and other factors, exacerbating wildfire risks, and thereby exposing project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. With continued implementation of fuel modification plans, impacts related to prevailing winds will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Maintenance of Infrastructure

Impact Wil-3 – Would the GPU require the installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water resources, powerlines, or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Analysis of Impacts

As previously described, several of the foothill and hillside neighborhoods of the Planning Area, along with other communities located in the Puente Hills, are designated “Very High Fire Hazard Severity” (VHFS) Zones by Los Angeles County. Developments within this zone are subject to the County’s fuel modification plans. The Los Angeles County Fire Department provides firefighting services to Whittier’s portion of the Local Responsibility Area (LRA) and reviews and approves fuel modification plans (Whittier, 2017 & DFFP, 2020).

As stated in Impact Wil-2 above, the Puente Hills Habitat Preservation Authority (Habitat Authority) restores and manages open space in the Puente Hills, including implementing wildfire preparedness training. The Habitat Authority contracts with the Mountains Recreation and Conservation Authority (MRCA) to provide ranger services who are trained as wildland firefighters. During fire season, fire patrol ranger units extinguish fires and protect structures as needed. In partnership with the Los Angeles County Fire Department, the MRCA has developed an Emergency Response Map to provide firefighters with pertinent information about the Puente Hills Preserve to be used at Incident Command, such as locations of drivable trails/roads, sensitive habitat, helipads, and gates. Additionally, the Habitat Authority actively conducts fuel modification for defensible space, removals dead and flammable trees within modification zones and has conducted habit restoration with the goal of removing flammable vegetation and replacing it with less combustible native plants.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 5: A community that proactively prevents wildfires and protects life, property, infrastructure, and habitats from wildfire impacts.

Policies

PSHN-5.1: Minimize new residential development within the Very High Fire Hazard Severity Zones.

PSHN-5.2: Require special on-site fire protection measures to be specified during project review for areas where wildfire hazards potential exists, specifically areas of hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, and/or excessively dry brush.

PSHN-5.3: Ensure new development adheres to California Government Code sections 51175 to 51189 related to Very High Fire Hazard Severity Zones, all requirements in the California Building Code and California Fire Code, and the Board of Forestry and Fire Protection Fire Safe Regulations.

PSHN-5.4: Regulate and enforce the installation of fire protection water system standards for all new construction projects within Very High Fire Hazard Severity Zones, including the installation of fire hydrants providing adequate fire flow, fire sprinkler, or suppression systems.

PSHN-5.5: Require new development within Very High Fire Hazard Severity Zones to include a fire protection plan that addresses landscape/fuel modification installation, incorporates open areas to complement defensible spaces, identifies possible refuge areas, and maps multiple ingress and egress routes.

PSHN-5.6: Require new development within Very High Fire Hazard Severity Zones to provide pre-plans for fire risk areas that address resident evacuation and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress.

PSHN-5.7: Require new development within and adjoining Very High Fire Hazard Severity Zones to prepare a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

PSHN-5.8: Require new development, and as feasible with existing development, to provide long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks within Very High Fire Hazard Severity Zones.

PSHN-5.9: Conduct a survey of existing residential structures within the Very High Fire Hazard Severity Zones to identify non-conforming buildings related to fire safety standards and consult with property owners to bring those properties into compliance with the most current building and fire safety standards.

PSHN-5.10: Identify at-risk populations that would be vulnerable during wildfire evacuations.

PSHN-5.11: Identify measures to preserve undeveloped ridgelines to reduce fire risk and improve fire protection.

PSHN-5.12: Locate essential public facilities out of high-risk, wildfire-prone areas unless additional mitigation measures are put into place above the minimum fire protection standards.

PSHN-5.13: Collaborate with the regional fire agencies and the Puente Hills Landfill Habitat Preservation Authority on different strategies available to maintain diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

General Plan Analysis. The land use plan of the proposed General Plan Update does not allow development within the designated open spaces of the Puente Hills, and development within the foothill and hillside neighborhoods of the Planning Area that are within high fire zones are also restricted in terms of location, design, building materials, and fuel modification/protection. Therefore, the GPU would not require the installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water resources, powerlines, or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Summary and Conclusions. With continued implementation of fuel modification plans impacts related to maintenance of infrastructure will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Expose People or Structures to Risk

Impact Wil-4 – Would the GPU expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Analysis of Impacts

As previously described, several of the foothill and hillside neighborhoods of the Planning Area, along with other communities located in the Puente Hills, are designated “Very High Fire Hazard Severity” (VHFS) Zones by Los Angeles County. Developments within this zone are subject to the County’s fuel modification plans. The Los Angeles County Fire Department provides firefighting services to Whittier’s portion of the Local Responsibility Area (LRA) and reviews and approves fuel modification plans (Whittier, 2017 & DFFP, 2020).

As stated in Impact Wil-2 above, the Puente Hills Habitat Preservation Authority (Habitat Authority) restores and manages open space in the Puente Hills, including implementing wildfire preparedness training. The Mountains Recreation and Conservation Authority provides rangers who are also trained as wildland firefighters. During fire season, fire patrol ranger units extinguish fires and protect structures as needed. In partnership with the Los Angeles County Fire Department, the MRCA has developed an Emergency Response Map to provide firefighters with pertinent information about the Puente Hills Preserve to be used at Incident Command, such as locations of drivable trails/roads, sensitive habitat, helipads, and gates. Additionally, the Habitat Authority actively conducts fuel modification for defensible space, removals dead and flammable trees within modification zones and has conducted habit restoration with the goal of removing flammable vegetation and replacing it with less combustible native plants. Further, the City maintains an Emergency Operations Plan that establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts for the various emergency staff utilizing the State’s Standardized Emergency Management System and National Incident Management. Further, City of Whittier Municipal Code Section 15.12.050 (Very High Fire Hazard Severity Zone) requires that where a very high fire hazard severity zone has been established by the city council, developers and landowners are required to adhere to construction and property maintenance standards.

2021 General Plan Update. Provided below are the applicable goals and policies provided in an abbreviated format: either summarized or identified by the topic(s) addressed in the goal or policy. Please see Appendix B for the full text of each goal or policy.

Public Safety, Noise, and Health Element

Goal 4: A community well prepared to respond to a major seismic event and to minimize risk of injury, loss of life, property damage, and social service and economic impacts.

PSHN-4.6: Require that projects in areas susceptible to liquefaction, landslides, and other geologic hazards demonstrate that all appropriate engineering and planning mitigations are implemented.

Goal 5: A community that proactively prevents wildfires and protects life, property, infrastructure, and habitats from wildfire impacts.

Policies

PSHN-5.1: Minimize new residential development within the Very High Fire Hazard Severity Zones.

PSHN-5.2: Require special on-site fire protection measures to be specified during project review for areas where wildfire hazards potential exists, specifically areas of hilly areas with slopes of 10 percent or greater, access problems, lack of water or sufficient pressure, and/or excessively dry brush.

PSHN-5.3: Ensure new development adheres to California Government Code sections 51175 to 51189 related to Very High Fire Hazard Severity Zones, all requirements in the California Building Code and California Fire Code, and the Board of Forestry and Fire Protection Fire Safe Regulations.

PSHN-5.4: Regulate and enforce the installation of fire protection water system standards for all new construction projects within Very High Fire Hazard Severity Zones, including the installation of fire hydrants providing adequate fire flow, fire sprinkler, or suppression systems.

PSHN-5.5: Require new development within Very High Fire Hazard Severity Zones to include a fire protection plan that addresses landscape/fuel modification installation, incorporates open areas to complement defensible spaces, identifies possible refuge areas, and maps multiple ingress and egress routes.

PSHN-5.6: Require new development within Very High Fire Hazard Severity Zones to provide pre-plans for fire risk areas that address resident evacuation and ways to effectively communicate those plans, including identifying the location and direction of evacuation routes and at least two points of ingress and egress.

PSHN-5.7: Require new development within and adjoining Very High Fire Hazard Severity Zones to prepare a roadside fuel reduction plan to prevent fires along public roads caused by vehicles.

PSHN-5.8: Require new development, and as feasible with existing development, to provide long-term maintenance of defensible space clearances around structures, subdivisions, and fuel breaks within Very High Fire Hazard Severity Zones.

PSHN-5.9: Conduct a survey of existing residential structures within the Very High Fire Hazard Severity Zones to identify non-conforming buildings related to fire safety standards and consult with property owners to bring those properties into compliance with the most current building and fire safety standards.

PSHN-5.10: Identify at-risk populations that would be vulnerable during wildfire evacuations.

PSHN-5.11: Identify measures to preserve undeveloped ridgelines to reduce fire risk and improve fire protection.

PSHN-5.12: Locate essential public facilities out of high-risk, wildfire-prone areas unless additional mitigation measures are put into place above the minimum fire protection standards.

PSHN-5.13: Collaborate with the regional fire agencies and the Puente Hills Landfill Habitat Preservation Authority on different strategies available to maintain diverse plant composition (e.g., less combustible native plants), undertake appropriate thinning of vegetation, and maintain fuel breaks without permanently damaging native habitat.

Goal 6: A community well protected from flood hazards.

Policies

PSHN-6.1: Maximize the resiliency of essential public facilities to risks and hazards of flooding.

PSHN-6.2: Evaluate the need to expand the capacity of flood control facilities to minimize flood hazards resulting from extreme weather events.

PSHN-6.3: Monitor the work of the Army Corps of Engineers' and other federal agencies' response plan to repair the Whittier Narrows Dam.

PSHN-6.4: Encourage natural flood control infrastructure and techniques to capture storm water, recharge aquifers, and prevent flooding near established drainage systems and channels.

PSHN-6.5: Encourage site drainage features that reduce impermeable surface area, increase surface water infiltration, and minimize surface water runoff during storm events.

General Plan Analysis. The land use plan of the proposed General Plan Update does not allow development within the designated open spaces of the Puente Hills, and development within the foothill and hillside neighborhoods of the Planning Area that are within high fire zones are also restricted in terms of location, design, building materials, and fuel modification/protection. In addition, the other GPU goals and policies cited above require existing and new development to be adequately protected from potential flooding or landslides and to not cause such hazards through careful site planning and construction.

Summary and Conclusions. In these ways, the GPU would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. With continued implementation of fuel modification plans impacts related to exposure of people or structure to significant risks will be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

Cumulative Impacts

Impact Wil-5 - Would the GPU cause substantial adverse cumulative impacts with respect to wildfires?

Analysis of Impacts

The proposed General Plan Update could have a cumulative impact on the ability of local agencies to protect residents, workers and structures from wildfires. Development within the Planning Area under the GPU could increase the population and/or activities and ignition sources in the Puente Hills area, which may increase the chances of a wildfire and increase the number of people and structures exposed to risk of loss, injury, or death. The potential cumulative impacts from multiple projects in a specific area can also cause fire response service decline and must be analyzed for each project.

The Public Safety, Noise, and Health Element of the proposed GPU contains Goals 1, 3, 4, 5, and 6 and policies that would help protect residents and structures from wildfires. These goals

and policies promote public education and awareness prior to fires, require safe design and construction of buildings within high fire zones, encourage cooperation and coordination with regional and other local agencies to monitor the City before and protect/defend hillside areas during wildfires, and help protect downstream or downhill properties from potential landslides, runoff, or pollution associated with wildfires. It is assumed other surrounding jurisdictions have similar General Plan goals and policies as they generally reflect compliance with state laws regarding wildfires and hazards related to wildfires.

The GPU along with other projects in the region represent an incremental increase in potential fire service demand or subsequent impacts after wildfires. Despite the generally low calculated increase in number of calls per year anticipated from the GPU, it contributes to the cumulative impact on fire services, when considered with other anticipated projects in the study area. The cumulative impact results in a situation where response capabilities erode and service levels may slowly decline. Fire Service Developer Agreements ensure funding for firefighting and emergency medical resources for new development, which requires development projects to contribute fair-share funding toward fire services. Funding provided by projects result in capital that can be used toward firefighting and emergency response improvements so that the County's firefighting agencies are able to perform their mission into the future at levels consistent with the General Plan. Therefore, the GPU, in combination with cumulative projects, would not result in a cumulatively considerable impact relative to wildfires.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

None required.

4.20.5 REFERENCES

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5.0 – ALTERNATIVES TO THE PROPOSED GENERAL PLAN UPDATE

Section 15126.6 of the CEQA Guidelines requires an EIR to "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." The section also states that the discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the basic project objectives, or would be costlier.

Pursuant to Section 15126.6, this chapter describes three alternatives to the General Plan Update (GPU) and compares their impacts to those of the proposed GPU. Pursuant to the CEQA Guidelines, the ability of the alternatives to meet a project's guiding principles is also described, and the "environmentally superior" alternative among the three is identified.

Several significant unavoidable impacts of the proposed GPU have been identified. Pursuant to the CEQA Guidelines, the alternatives in this chapter focus on avoiding or substantially reducing these unavoidable significant impacts and lessening other impacts.

5.1 General Plan Objectives

In accordance with CEQA Guidelines section 15126.6(a), this EIR does not evaluate every conceivable alternative. A feasible range of alternatives that will allow decision-makers to make a reasoned choice and that meet most of the Project's guiding principles has been evaluated.

The project guiding principles are:

1. Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. Create new housing opportunities for a full range of housing types and to increase housing affordability.
3. Strengthen the City's industrial and office sectors.
4. Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
5. Strive for a vibrant uptown, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
6. Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.

7. Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Ensure residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
8. Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

5.2 Alternatives Considered But Rejected

Section 15126.6(a) of the CEQA Guidelines states, “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 project objectives but would avoid or substantially lessen any of the significant effects of the project[.]” Further, section 15126.6(c) explains, “Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental effects.” To help clarify the meaning of “feasibility,” CEQA Guidelines section 15126.6(f)(1) (Rule of Reason/Feasibility) states, “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries... and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site... No one of these factors establishes a fixed limit on the scope of reasonable alternatives.”

CEQA Guidelines section 15126.6(c) explains that alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the basic project objectives, are infeasible, or do not avoid any significant environmental effects. CEQA Guidelines section 15126.6(f) indicates that the Lead Agency should consider site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitation, jurisdictional boundaries, and the proponents control over alternative sites in determining the range of alternatives to be evaluated in an EIR. With respect to alternative locations, CEQA Guidelines section 15126.6(f) indicates that alternative locations need not be evaluated in every case. The key question in determining whether to evaluate alternative locations is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any significant effects need be evaluated in the EIR. CEQA Guidelines section 15126(f)(2) indicates that alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered.

The following alternatives were considered for evaluation but were rejected due to infeasibility:

Reduced Non-Residential Development Capacity. An alternative that included reductions in the potential non-residential development capacity of the proposed GPU but not in residential development capacity would not be feasible. The proposed GPU would only increase the non-residential development capacity by approximately 175,236 square feet over the existing 1993 General Plan. CEQA Guidelines provide that the alternatives evaluated in an EIR should be selected based on their ability to avoid or substantially lessen the significant Impacts of the proposed project. This EIR identifies significant unavoidable impacts related to Air Quality, Greenhouse Gas Emissions, Noise and Traffic/ Transportation. Based on the EIR analyses, these impacts cannot be avoided or substantially reduced by additional, feasible mitigation measures. Because the proposed increase in non-residential floor area is so small, reducing the proposed GPU’s non-residential development capacity would not substantially lessen the

significant impacts of the Project. Because this alternative would not achieve the Project guiding principles, and would not necessarily avoid or lessen the significant impacts of the Project and might result in new significant impacts, an alternative that would involve a reduction in non-residential development capacity was eliminated from further detailed consideration. Therefore, no further evaluation of this alternative is required under CEQA.

Reduced (>40%) Residential Development Capacity. An alternative that included reductions in the potential residential development capacity of the proposed GPU greater than 40 percent would not be feasible. The proposed GPU would increase the residential development capacity by approximately 7,495 units over the existing 1993 General Plan. This EIR identifies significant unavoidable impacts related to Air Quality, Greenhouse Gas Emissions, Noise and Traffic/Transportation. Based on the EIR analyses, these impacts cannot be avoided or substantially reduced by additional, feasible mitigation measures. While an alternative that includes a reduction in residential development capacity greater than 40 percent could potentially lessen any of the significant impacts would result in the City not meeting its 7th Cycle Regional Housing Needs Allocation (RHNA) of at least 4,130 dwelling units. Because this alternative would not achieve the Project guiding principles, and would result in the City not meeting its RHNA commitments, an alternative that would involve a reduction in residential development capacity greater than 40 percent was eliminated from further detailed consideration. Therefore, no further evaluation of this alternative is required under CEQA.

Alternative Location. An alternative location for the proposed GPU would not be feasible. Implementation of the proposed GPU in an alternative location would result in a new town in another place. None of the proposed General Plan goals, policies, and implementation programs related to the existing Planning Area environment would be attained. Even if an alternative location for the Project could implement the City's objectives for the Project, only those locations that would avoid or substantially lessen any of the significant impacts of the Project need to be considered in the EIR. This EIR identifies significant unavoidable impacts related to Air Quality, Greenhouse Gas Emissions, Noise and Traffic/Transportation. Based on the EIR analyses, these impacts cannot be avoided or substantially reduced by additional, feasible mitigation measures. Transferring these impacts to an alternative location would still substantially impact the environment, possibly worse than in Whittier where coordinated services, infrastructure, plans, and regulations are already in place to help mitigate potential environmental impacts. Because an alternative Project location would be infeasible, would not achieve the Project guiding principles, and would not necessarily avoid or lessen the significant impacts of the Project and might result in new significant impacts, an alternative that would involve a different Project location was eliminated from further detailed consideration. No further evaluation of alternative project locations is required under CEQA.

5.3 Alternatives Selected

The following alternatives have been evaluated in comparison to the proposed GPU:

- Alternative 1: No Project--Existing General Plan Development Capacity
- Alternative 2: Reduced (25%) Overall Development Capacity
- Alternative 3: Reduced (40%) Residential Development Capacity

In accordance with CEQA Guidelines Section 15126.6(d), the discussion of impacts of the alternatives is less detailed than the evaluation included in Sections 4.1 through 4.20 of the impacts associated with implementation of the GPU. Table 5-1 (Selected Land Use Alternatives)

shows the development assumptions of each alternative. Table 5-2 Alternatives’ Impacts Compared to Project Impacts) shows how impacts associated with the implementation of the alternatives compare to the impacts associated with implementation of the Project; the reader is advised to refer to the accompanying text for a fuller explanation.

**Table 5-1:
Selected Land Use Alternatives**

Land Use	Existing Conditions	Proposed General Plan Update	Net Change		
			Alternatives		
			1. No Project-- Existing General Plan Development Capacity ^{(a) (b) (c)}	2. Reduced (25%) Overall Development Capacity	3. Reduced (40%) Residential Development Capacity
Residential (units)	46,155	+7,495	35,564	+5,621	+4,497
Population	141,102	+20,190	96,023	+15,142	+12,114
Non-Residential Building (SF)	12,919,133	+175,236	12,608,406	+131,427	+175,236
Employees	33,764	+1,396	N/A	+1,047	+1,396
Motels/Hotels (rooms)	796	+171	N/A	+128	+171

Source: MIG, 2021

(a) 1993 Whittier General Plan Development Capacity

(b) The development capacity of the 1993 Whittier General Plan has been exceeded under existing conditions. Therefore, impacts from the proposed GPU are analyzed against existing conditions.

(c) The 1993 Whittier General Plan did not include projections for employees or motel/hotel rooms.

**Table 5-2:
Alternatives' Impacts Compared to Project Impacts**

Impact/Resource	Alternative 1: No Project/Existing General Plan Development Capacity	Alternative 2: Reduced (25%) Overall Development Capacity	Alternative 3: Reduced (40%) Residential Development Capacity
Aesthetics	Reduced LTS	Reduced LTS	Reduced LTS
Agriculture and Forestry Resources	Similar no impact	Similar no impact	Similar no impact
Air Quality	Reduced SU	Reduced SU	Reduced SU
Biological Resources	Similar LTS	Similar LTS	Reduced LTS
Cultural Resources	Similar LTS	Similar LTS	Similar LTS
Energy	Reduced LTS	Reduced LTS	Reduced LTS
Geology and Soils	Similar LTS	Similar LTS	Similar LTS
Greenhouse Gas Emissions	Reduced SU	Reduced SU	Reduced SU
Hazards and Hazardous Materials	Similar LTS	Similar LTS	Similar LTS
Hydrology and Water Quality	Similar LTS	Similar LTS	Similar LTS
Land Use	Similar LTS	Similar LTS	Similar LTS
Mineral Resources	Similar no impact	Similar no impact	Similar no impact
Noise	Reduced LTS	Reduced LTS	Reduced LTS
Population and Housing	Reduced LTS	Reduced LTS	Reduced LTS
Public Services	Reduced LTS	Reduced LTS	Reduced LTS
Recreation	Reduced LTS	Reduced LTS	Reduced LTS
Transportation	Reduced SU	Reduced SU	Reduced SU
Tribal Cultural Resources	Similar LTS	Similar LTS	Similar LTS
Utilities and Service Systems	Reduced LTS	Reduced LTS	Reduced LTS
Wildfire	Similar LTS	Similar LTS	Similar LTS
Source: MIG, 2021 LTS= Less-than-Significant Impacts SU= Significant and Unavoidable Impacts			

5.4 Alternative 1: No Project/Existing General Plan

5.4.1 Principal Characteristics

The No Project/Existing General Plan Alternative (No Project Alternative) assumes that development would occur within the Planning Area, but only in the locations and at the densities allowed or anticipated under the 1993 General Plan. Development assumptions for this alternative are shown in Table 5-1.

5.4.2 Analysis of No Project/Existing General Plan Alternative

The potential impacts associated with the No Project Alternative are described below.

a. Aesthetics. The No Project Alternative assumes the amount of development would be reduced compared to the Project. As with the Project, aesthetic impacts are anticipated to be less-than-significant under the No Project Alternative. The 1993 General Plan notes that the Puente Hills are visible to the north and east of the Planning Area. The Puente Hills are the major topographic and open space feature in the area. As with the Project, aesthetic impacts are anticipated to be less-than-significant under this alternative. To prevent impacts on scenic vistas, the City has incorporated low-density residential and hillside guidelines and standards for development on hillsides and ridgelines within the City. Much of the Puente Hills is either formally designated as a preserve or is protected through General Plan policies and programs. These policies and programs would remain in place under this alternative. The location and size of signs are strictly regulated by Chapters 18.73 through 18.78 of the City's Municipal Code in order to avoid detracting from scenic views and vistas. The City's Zoning Ordinance limits billboard signs to commercial land use districts. Outdoor lighting is regulated by 18.99.080 (Lighting and Illumination) of the City's Municipal Code. Any new development under the No Project Alternative would be required to undergo design review, which would ensure compliance with regulations and review for potential light and glare. This alternative would result in a reduced less-than-significant impact, when compared to the Project, given the reduction in development associated with this alternative.

b. Agriculture and Forestry Resources. The Planning Area does not contain any land identified as some kind of "important farmland" (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance). Additionally, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. Similar to the Project, this alternative would have no impact on agriculture or forestry resources.

c. Air Quality. As described in Section 4.3, the Project would result in a significant unavoidable air quality impact. While the No Project alternative would decrease the amount of development when compared to the Project, this alternative would likely not be consistent with SCAG forecasts for Whittier as it exceeds the 2020 RTP/SCS population projections for the City of Whittier; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP). Given the overall reduction in non-residential square footage (commercial, office, and industrial) combined with a reduction in residential units, air emissions associated with the alternative would be reduced compared to the Project. However, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. Air quality emissions associated with this alternative would be reduced compared to the Project but still be expected to be significant and unavoidable.

d. Biological Resources. The Planning Area contains suitable habitat for ten special status plant species and 26 special status wildlife species. While the amount of development under this alternative would be reduced, all future projects would be required to adhere to existing regulations regarding nesting birds. Similar to the Project, the No Project Alternative would have a similar less-than-significant impact on biological resources.

e. Cultural Resources. As with the Project, development under the No Project Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. Policies from the existing General Plan require that development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, to be evaluated by a qualified professional and, if necessary, incorporate mitigation measures into project approvals. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

f. Energy. As with the Project, development associated with the No Project Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Development under this alternative would have reduced energy consumption compared to the Project. Given the reduced level of development, this alternative would have a reduced less-than-significant energy impact compared to the Project. Potential impacts would be less than significant for the Project and this alternative.

g. Geology and Soils. This alternative would result in geology and soils impacts similar to those associated with the Project as both the alternative and the Project would be exposed to the same existing geologic conditions within the City. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. As such, the No Project Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

h. Greenhouse Gas Emissions. The Project would result in a significant unavoidable greenhouse gas (GHG) emissions impact. While overall GHG emissions associated with this alternative would be reduced due to the decrease in development, it is likely that mitigation measures identified for the Project would also be required for this alternative. Given the reduction in development associated with this alternative, GHG emissions associated with this alternative would be reduced compared to the Project, but would still be considered significant and unavoidable.

i. Hazards and Hazardous Materials. Hazardous materials would be present during construction and operation of development associated with the No Project Alternative. The amount and use of these chemicals present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review as well as hazardous materials policies included in the existing General Plan. This alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

j. Hydrology and Water Quality. Development associated with implementation of the No Project Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and development increase that would be less than the Project; The No Project Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

k. Land Use Planning. As with the Project, the No Project Alternative would not physically divide an established community. Development would be consistent with the adopted 1993 General Plan, and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use impact.

l. Mineral Resources. Most of the Planning Area is designated as having little potential for development of mineral resources. There are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area. As with the Project, this alternative would have no impact on mineral resources.

m. Noise. The Project would result in less than significant noise impacts with mitigation incorporated. The No Project Alternative would result in less development than the Project. Under this alternative, mitigation measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. Due to the reduction in development the traffic noise impact would be reduced when compared to the Project and would still be less than significant.

n. Population and Housing. This alternative would result in a reduced amount of residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing.

o. Public Services. This alternative would result in a reduced amount of development and related population and employment growth, which would result in less demand for public services compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant public services impact compared to the Project.

p. Recreation. This alternative would result in a reduced amount of development and associated population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

q. Transportation. This alternative would result in less development than would occur with implementation of the Project. Given the reduction in development associated with this alternative, it is possible that vehicle miles traveled impacts under this alternative would also be reduced. However, similar to the project, significant and unavoidable cumulative transportation impacts would likely occur under this alternative. The transportation impacts associated with this alternative would be reduced when compared to the Project but would still be significant and unavoidable.

r. Tribal Cultural Resources. As with the Project, development under the No Project Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes, in addition to existing General Plan policies, would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations.

s. Utilities and Service Systems. This alternative would result in a reduced amount of development and associated population and employment growth, which would result in less

demand for utilities services compared to the Project. Therefore, this alternative would have a reduced less-than-significant utilities and service system impact when compared to the Project.

t. Wildfire. Very high fire severity zones are present in the northeastern portions of the Planning Area. The existing General Plan policies, including identifying special on-site fire protection measures during project review, would be applicable. Similar to the Project, this alternative would result in a less-than-significant wildfire impact.

Attainment of Project Objectives

The No Project Alternative assumes a continuation of the existing 1993 General Plan. As this alternative would result in a reduction in the amount of development, and would not include any of the updated goals and policies included in the GPU, it would generally meet the following project objectives, but not at the same level as the Project:

1. Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. Create new housing opportunities for a full range of housing types and to increase housing affordability.
3. Strengthen the City's industrial and office sectors.
4. Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
5. Strive for a downtown that showcases the City's rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
6. Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
7. Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Ensure residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
8. Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

5.5 Alternative 2: Reduced (25%) Overall Development

5.5.1 Principal Characteristics

The Reduced Overall Development Alternative assumes that overall development associated with the Project would be reduced by twenty-five percent. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative. Development assumptions for this alternative are shown in Table 5-1.

5.5.2 Analysis of the Reduced Overall Development Alternative

The potential impacts associated with the Reduced Overall Development Alternative are described below.

a. Aesthetics. The Reduced Overall Development Alternative assumes the amount of development would be reduced by twenty-five percent compared to the Project. As with the Project, aesthetic impacts are anticipated to be less-than-significant under this alternative. To prevent impacts on scenic vistas, the City has incorporated low-density residential and hillside guidelines and standards for development on hillsides and ridgelines within the City. Much of the Puente Hills is either formally designated as a preserve or is protected through General Plan policies and programs. These policies and programs would remain in place under this alternative. The location and size of signs are strictly regulated by Chapters 18.73 through 18.78 of the City's Municipal Code in order to avoid detracting from scenic views and vistas. The City's Zoning Ordinance limits billboard signs to commercial land use districts. Outdoor lighting is regulated by 18.99.080 (Lighting and Illumination) of the City's Municipal Code. Any new development under the No Project Alternative would be required to undergo design review, which would ensure compliance with regulations and review for potential light and glare. This alternative would result in a reduced less-than-significant impact, when compared to the Project, given the reduction in development associated with this alternative.

b. Agriculture and Forestry Resources. The Planning Area does not contain any land identified as some kind of "important farmland," (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance). Additionally, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. Similar to the Project, this alternative would have no impact on agriculture or forestry resources.

c. Air Quality. The Project would result in a significant unavoidable air quality impact. While the Reduced Overall Development Alternative would decrease the amount of development when compared to the Project, this alternative would likely not be consistent with SCAG forecasts for Whittier as it exceeds the 2020 RTP/SCS population projections for the City of Whittier; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP). Given the overall reduction in non-residential square footage (commercial, office, and industrial) combined with a reduction in residential units, air emissions associated with the alternative would be reduced compared to the Project. However, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. Air quality emissions associated with this alternative would be reduced compared to the Project, but would still be expected to be significant and unavoidable.

d. Biological Resources. The Planning Area contains suitable habitat for ten special status plant species and 26 special status wildlife species. While the amount of development under

this alternative would be reduced, all future projects would be required to adhere to existing regulations regarding nesting birds. As such, the Reduced Overall Development Alternative would have a similar less-than-significant Biological Resources impact to the Project.

e. Cultural Resources. As with the Project, development under the Reduced Overall Development Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, development under this alternative would not result in a substantial adverse change in the significance of a historical resource because they are currently protected under both existing and proposed policies. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations and the proposed General Plan Update policies.

f. Energy. As with the Project, development associated with the Reduced Overall Development Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Development under this alternative would have reduced energy consumption compared to the Project. Given the reduced level of development, this alternative would have a reduced less-than-significant energy impact compared to the Project.

g. Geology and Soils. This alternative would result in geology and soils impacts similar to those associated with the Project as both the alternative and the Project would be exposed to the same existing geologic conditions within the City. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All applicable GPU policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The Reduced Build Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

h. Greenhouse Gas Emissions. The Project would result in a significant unavoidable greenhouse gas (GHG) emissions impact. While overall GHG emissions associated with the alternative would be reduced due to the decrease in development, it is likely that mitigation measures identified for the Project would also be required for this alternative. Given the twenty-five percent reduction in overall development associated with this alternative, the GHG emissions significant impacts associated with the Project would be reduced under this alternative but would still be considered significant and unavoidable.

i. Hazards and Hazardous Materials. Hazardous materials would be present during construction and operation of development associated with the Reduced Overall Development Alternative. The amount and use of these chemicals present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review, which would include identification of any contaminated sites. The Reduced Overall Development Alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

j. Hydrology and Water Quality. Development associated with implementation of the Reduced Overall Development Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and development increase that would be less than the Project. The Reduced Overall Development Alternative would have

a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

k. Land Use Planning. As with the Project, the Reduced Overall Development Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use impact.

l. Mineral Resources. Most of the Planning Area is designated as having little potential for development of mineral resources. There are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area. As with the Project, this alternative would have no impact on mineral resources.

m. Noise. The Project would result in less than significant noise impacts with incorporation of mitigation measures. The Reduced Overall Development Alternative would result in less development than the Project. Under this alternative, mitigation measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. Due to the reduction in development the traffic noise impact would be reduced and would be less than significant.

n. Population and Housing. This alternative would result in a reduced amount of residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing.

o. Public Services. This alternative would result in a reduced amount of development, and population and employment growth, which would result in less demand for public services compared to the Project. Therefore, this alternative would result in a reduced less-than-significant public services impact compared to the Project.

p. Recreation. This alternative would result in a reduced amount of development and population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

q. Transportation. This alternative would result in less development than would occur with implementation of the Project. Given the reduction in development associated with this alternative, it is possible that vehicle miles traveled impacts under this alternative would also be reduced. However, similar to the project, significant and unavoidable cumulative transportation impacts would likely occur under this alternative. The transportation impacts associated with this alternative would be reduced when compared to the Project but would still be significant and unavoidable.

r. Tribal Cultural Resources. As with the Project, development under the Reduced Overall Development Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes, in addition to GPU policies, would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on tribal cultural resources with adherence to existing regulations.

s. Utilities and Service Systems. This alternative would result in a reduced amount of development and associated population and employment growth, which would result in less demand for utilities services compared to the Project. Therefore, this alternative would have a reduced less-than-significant utilities and service system impact when compared to the Project.

t. Wildfire. Very high fire severity zones are present in the northeastern portions of the Planning Area. The existing General Plan policies, including identifying special on-site fire protection measures during project review, would be applicable. Similar to the Project, this alternative would result in a less-than-significant wildfire impact.

Attainment of Project Objectives

The Reduced Overall Development Alternative assumes a general twenty-five percent reduction of development within the Planning Area when compared to the Project. Additionally, goals and policies within the GPU would be applicable to this alternative. This alternative would generally meet the following project objectives, similar to the Project:

1. Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. Create new housing opportunities for a full range of housing types and to increase housing affordability.
3. Strengthen the City's industrial and office sectors.
4. Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
5. Strive for a downtown that showcases the City's rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
6. Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
7. Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Ensure residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
8. Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

5.6 Alternative 3: Reduced (40%) Residential Development

5.6.1 Principal Characteristics

The Reduced Residential Alternative assumes that residential development would be restricted to areas included in already approved Specific Plans or urbanized areas that include existing infrastructure. This would result in a substantial reduction in residential and population growth; non-residential and hotel/motel development would be similar to the Project. Exhibit 3-6 shows the areas where residential development would be excluded. Table 5-1 shows the development associated with this alternative. This alternative assumes that policies and goals associated with the General Plan Update would be applicable to development under this alternative.

5.6.2 Analysis of the Reduced Residential Development Alternative

The potential impacts associated with the Reduced Residential Development Alternative are described below.

a. Aesthetics. The Reduced Residential Alternative assumes the amount of development would be reduced compared to the Project. As with the Project, aesthetic impacts are anticipated to be less-than-significant under this alternative. To prevent impacts on scenic vistas, the City has incorporated low-density residential and hillside guidelines and standards for development on hillsides and ridgelines within the City. Much of the Puente Hills is either formally designated as a preserve or is protected through General Plan policies and programs. These policies and programs would remain in place under this alternative. The location and size of signs are strictly regulated by Chapters 18.73 through 18.78 of the City's Municipal Code in order to avoid detracting from scenic views and vistas. The City's Zoning Ordinance limits billboard signs to commercial land use districts. Outdoor lighting is regulated by 18.99.080 (Lighting and Illumination) of the City's Municipal Code. Any new development under the No Project Alternative would be required to undergo design review, which would ensure compliance with regulations and review for potential light and glare. This alternative would result in a reduced less-than-significant impact, when compared to the Project, given the reduction in residential development associated with this alternative.

b. Agriculture and Forestry Resources. The Planning Area does not contain any land identified as some kind of "important farmland," (Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance). Additionally, the Planning Area does not have any land zoned or utilized primarily for agricultural or forestry purposes. Similar to the Project, this alternative would have no impact on agriculture or forestry resources.

c. Air Quality. The Project would result in a significant unavoidable air quality impact. While the Reduced Residential Alternative would decrease the amount of residential development when compared to the Project, this alternative would not be consistent with SCAG forecasts for Whittier as it exceeds the 2020 RTP/SCS population and employee projections for the City of Whittier; as such, this alternative would likely not be consistent with the SCAQMD 2016 Air Quality Management Plan (2016 AQMP). While there is no reduction in non-residential square footage, when combined with a reduction in residential units, air emissions associated with this alternative would be reduced compared to the Project. However, it is likely that air quality mitigation measures needed for the Project would also be required for this alternative. Air quality emissions associated with this alternative would be reduced compared to the Project, but would still be expected to be significant and unavoidable.

d. Biological Resources. The Planning Area contains suitable habitat for ten special status plant species and 26 special status wildlife species. While the amount of development under this alternative would be reduced, all future projects would be required to adhere to existing regulations regarding nesting birds. As such, the Reduced Residential Alternative would have a similar less-than-significant Biological Resources impact to the Project.

e. Cultural Resources. As with the Project, development under the Reduced Residential Alternative could uncover previously unknown cultural resources or destroy/change structures that could be considered historic. As with the Project, development under this alternative would not result in a substantial adverse change in the significance of a historical resource because they are currently protected under both existing and proposed policies. Similar to the Project, this alternative would have a less-than-significant impact on cultural resources with adherence to existing regulations and the proposed General Plan Update policies.

f. Energy. As with the Project, development associated with the Reduced Residential Alternative would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. Development under this alternative would have reduced energy consumption compared to the Project. Given the reduced level of development, this alternative would have a reduced less-than-significant energy impact compared to the Project.

g. Geology and Soils. This alternative would result in geology and soils impacts similar to those associated with the Project as both the alternative and the Project would be exposed to the same existing geologic conditions within the City. As with the Project, existing building requirements would be applicable under this alternative. Additionally, all future projects would be required to be designed and constructed in compliance with all applicable City and State codes and requirements. All applicable GPU policies related to geology and seismic issues would be applicable to this alternative, as is the case with the Project. The Reduced Residential Alternative would have a less-than-significant geology impact, and would be considered similar to the Project.

h. Greenhouse Gas Emissions. The Project would result in a significant unavoidable greenhouse gas (GHG) emissions impact. While overall GHG emissions associated with the alternative would be reduced due to the decrease in residential development, it is likely that mitigation measures identified for the Project would also be required for this alternative. Given the forty-four percent reduction in residential development associated with this alternative, the GHG emissions significant impacts associated with the Project would be reduced under this alternative but would still be considered significant and unavoidable.

i. Hazards and Hazardous Materials. Hazardous materials would be present during construction and operation of development associated with the Reduced Residential Alternative. The amount and use of these chemicals present during construction would be limited, would be in compliance with existing government regulations, and would not be considered a significant hazard. As with the Project, any future development under this alternative would be subject to the City's standard environmental review, which would include identification of any contaminated sites. The Reduced Residential Alternative would have a less-than-significant hazards and hazardous materials impact, and would be considered similar to the Project.

j. Hydrology and Water Quality. Development associated with implementation of the Reduced Residential Alternative would be subject to all existing water quality regulations and programs. This alternative assumes a population and development increase that would be less

than the Project. The Reduced Residential Alternative would have a less-than-significant hydrology and water quality impact, and would be considered similar to the Project.

k. Land Use Planning. As with the Project, the Reduced Residential Alternative would not physically divide an established community and would not conflict with regulations adopted to avoid environmental effects. Similar to the Project, this alternative would have a less-than-significant land use impact.

l. Mineral Resources. Most of the Planning Area is designated as having little potential for development of mineral resources. There are no portions of the Planning Area that are designated MRZ-2. As such, there are no areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists within the Planning Area. As with the Project, this alternative would have no impact on mineral resources.

m. Noise. The Project would result in less than significant noise impacts with incorporation of mitigation measures. The Reduced Residential Alternative would result in less development than the Project. Under this alternative, measures would still be required to ensure that construction noise is mitigated for projects located near sensitive receptors. Due to the reduction in development, the traffic noise impact would be reduced and would be less than significant.

n. Population and Housing. This alternative would result in a reduced amount of residential development and population growth compared to the Project. Given the reduction in population and housing, this alternative would result in a reduced less-than-significant impact related to population and housing.

o. Public Services. This alternative would result in a reduced amount of development, and population and employment growth, which would result in less demand for public services compared to the Project. Therefore, this alternative would result in a reduced less-than-significant public services impact compared to the Project.

p. Recreation. This alternative would result in a reduced amount of residential development and population growth, which would result in less demand for recreational facilities compared to the Project. This alternative would result in a reduced less-than-significant recreation impact compared to the Project.

q. Transportation. This alternative would result in less residential development than would occur with implementation of the Project. Given the reduction in residential development associated with this alternative, it is possible that vehicle miles traveled impacts under this alternative would also be reduced. However, similar to the project, significant and unavoidable cumulative transportation impacts would likely occur under this alternative. The transportation impacts associated with this alternative would be reduced when compared to the Project but would still be significant and unavoidable.

r. Tribal Cultural Resources. As with the Project, development under the Reduced Residential Alternative could uncover previously unknown Tribal Cultural Resources. Compliance with existing regulations regarding burial grounds and consultation with Native American tribes, in addition to GPU policies, would ensure that potential impact would be reduced. Similar to the Project, this alternative would have a less-than-significant impact on tribal cultural resources with adherence to existing regulations.

s. Utilities and Service Systems. This alternative would result in a reduced amount of development and associated population and employment growth, which would result in less demand for utilities services compared to the Project. Therefore, this alternative would have a reduced less-than-significant utilities and service system impact when compared to the Project.

t. Wildfire. Very high fire severity zones are present in the northeastern portions of the Planning Area. The existing General Plan policies, including identifying special on-site fire protection measures during project review, would be applicable. Similar to the Project, this alternative would result in a less-than-significant wildfire impact.

Attainment of Project Objectives

The Reduced Residential Alternative assumes a reduction in residential development population growth within the Planning Area, but a similar level of non-residential growth as associated with the Project. This alternative assumes GPU goals and policies would be applicable. It would generally meet the following project objectives, similar to the Project:

1. Promote healthy and safe neighborhoods with comprehensive approaches that consider best practices around land use, mobility, housing, environmental justice, community services, and design.
2. Create new housing opportunities for a full range of housing types and to increase housing affordability.
3. Strengthen the City's industrial and office sectors.
4. Support a diversified economy with a balance of small and large businesses across a broad range of industries that provide employment, commercial, and experiential opportunities.
5. Strive for a downtown that showcases the City's rich history, celebrates local entrepreneurship, features our civic institutions, and encourages downtown living within a vibrant gathering place for the community.
6. Create an interconnected, active transportation system that recognizes and responds to the critical needs of businesses to move commerce while accommodating the equally important necessity for pedestrians, cyclists, transit users, and motorists to move around the City with convenience and ease.
7. Engage residents and stakeholders in ensuring equitable and inclusive processes, policies, investments, and service systems. Ensure residents in disadvantaged communities have access to healthy foods, parks, mobility options activity, public programs, and safe homes.
8. Protect people, infrastructure, and community assets from evolving climate threats and vulnerabilities, and from natural and human-caused hazards.

5.7 Environmentally Superior Alternative

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." While both Alternative 2 and Alternative 3 would result in reduced or similar less than significant impacts as the Project, Alternative 2 would result in an overall greater reduction in development potential than Alternative 3. Therefore, other than Alternative 1 (No Project—Existing General Plan), Alternative 2, Reduced (25%) Overall Development Capacity, would result in the least adverse environmental impacts and would therefore be the "environmentally superior alternative." This conclusion is based on the comparative impact conclusions in Table 5-2 and the analysis within this section. However, this alternative would not meet the objectives to nearly the same degree as the Project.

6.0 CEQA-MANDATED SECTIONS

6.1 CUMULATIVE IMPACTS

Section 15130(a) of the CEQA Guidelines requires that the EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." The CEQA Guidelines (Section 15355) define "cumulative impacts" as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

The analyses of quantitative cumulative impacts in this EIR are based on the "summary of projections" method, as authorized by section 15130(b)(1)(B) of the CEQA Guidelines.

The proposed Whittier 2040 General Plan is itself a cumulative project because it would be implemented across the entire Planning Area incrementally and cumulatively over approximately 20 years (the horizon year is 2040 but the life of the plan could extend beyond 2040). This Program EIR evaluates the Whittier General Plan Update (GPU) as one "project" in accordance with CEQA. All potentially significant cumulative impacts are addressed in this chapter with the following exceptions:

- 1) The SCAQMD identifies all regional air pollutant emission impacts and climate change impacts as inherently cumulative impacts because they contribute to regional and global conditions, and are not confined to physical boundaries. Accordingly, the analyses of these impacts in Chapters 4.3 (Air Quality) and 4.8 (Greenhouse Gas Emissions and Global Climate Change) are analyses of cumulative impacts.
- 2) Cumulative noise impacts are analyzed in detail in Chapter 4.13 (Noise).
- 3) Cumulative transportation and circulation impacts are analyzed in detail in Chapter 4.17 (Transportation).
- 4) Chapter 4.19 (Utilities and Service Systems) evaluates: 1) water supply sufficiency on a cumulative basis, (UWMP), 2) wastewater generation, collection, and treatment capacity on a cumulative basis; and 3) utility (water, wastewater, and storm drainage) infrastructure needs on a cumulative basis.

All other potential cumulative impacts are addressed in the sections that follow below.

6.1.1 Cumulative Aesthetic and Visual Resource Impacts

Impacts on aesthetics and visual resources are localized impacts, and there are no identified, large-scale development projects proposed within or adjacent to the Planning Area. In addition, the Planning Area does not offer any expansive scenic views, and the GPU includes goals and policies that would avoid or reduce potential aesthetic impacts (see Chapter 4.1, Aesthetics and Visual Resources). Therefore, the proposed Project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to aesthetics and visual resources.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.2 Cumulative Agriculture and Forestry Resources

There are no agricultural or forested lands within or proximate to the Planning Area and, therefore, no impacts. Accordingly, the GPU would not make a cumulatively considerable contribution to any significant impact to agriculture or forestry resources.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.3 Cumulative Local Odor Impacts (Air Quality)

There are no identified odor-producing development projects proposed within or adjacent to the Planning Area. The proposed Project would not make a cumulatively considerable contribution to any significant cumulative odor impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

Please note that other air quality impacts that are potentially cumulatively considerable are discussed in detail in Chapter 4.3 (Air Quality).

6.1.4 Cumulative Biological Resource Impacts

Most of the Planning Area is developed, with the exception of the northeastern portion of the Planning Area which is comprised of the Puente Hills and Puente Hills Preserve. There are also portions of the hillside neighborhoods which include some natural open space. The Puente Hills Preserve is undeveloped and provides unique ecological conditions, some of which are designated as Significant Ecological Areas (SEAs). SEAs are defined by Los Angeles County as having irreplaceable biological resources. These areas represent the wide-ranging biodiversity of the County and contain some of the County's most important biological resources. There are SEAs in the Puente Hills Preserve that are located within the Planning Area. Except for the possibility of impacts to nesting birds, impacts to biological resources would be less than significant. Potential impacts on nesting birds as a result of GPU implementation would be mitigated on a site-specific basis with implementation of existing regulations, which require the surveying of habitats suitable for nesting migratory birds and, if nests are found, would require their protection. With implementation of existing regulations, cumulative impacts to nesting migratory birds would be less than significant.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been specifically identified; however, the potential for impacts to nesting migratory birds can be mitigated through adherence to existing regulations. Therefore, with the implementation of existing regulations, potential cumulative as well as project-level impacts would be less than significant.

6.1.5 Cumulative Cultural and Tribal Cultural Resource Impacts

As discussed in Chapter 4.5 (Cultural Resources) and Chapter 4.18 (Tribal Cultural Resources), the Planning Area contains several registered historic resources as well as civic/institutional and commercial landmarks that provide a source of community pride and enhance the social, cultural, and economic makeup of the community. In addition, the Puente Hills are known to have archaeological resources that pre-date Spanish and Mexican land grants. These

resources date back thousands of years and are reflective of Native American settlement patterns. As such, given the long history of Native American settlement in the region, followed by Spanish and Mexican rule, there is a high probability of finding prehistoric (archaeological) resources in the Planning Area. Such resources could be inadvertently discovered as demolition and redevelopment occur on individual properties.

The proposed GPU includes numerous policies and implementation programs to ensure proper treatment of historic and archaeological resources (see EIR chapter 4.5--Cultural Resources). In addition, the City's established development review procedures requires an assessment of archaeological resources for new development, especially in previously undisturbed areas such as the Puente Hills. The development review process also requires compliance with the established Native American consultation procedures of SB 18 and AB 52 (see Sections 4.5.2 and 4.18.2). With implementation of the General Plan goals and policies, as well as the existing preservation guidelines in the municipal code, potential impacts to historic resources by future development within the Planning Area will be less than significant. With implementation of the General Plan goals and policies, as well as the City's established development review and Native American consultation processes, potential impacts to archaeological resources by future development will be less than significant.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.6 Cumulative Geology and Soils Impacts

The impacts of the GPU with respect to geology and soils would be site-specific and would not combine with the equally site-specific geology or soils impacts of other projects. Although it might be possible for two adjacent improperly constructed projects to cumulatively affect a third facility (e.g., an underground utility line), implementation of adopted City regulations and required geotechnical investigations, as described in Chapter 4.7 (Geology and Soils), would avoid such impacts.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.7 Cumulative Hazards and Hazardous Materials Impacts

Because of the applicable laws, adopted performance standards, and uniform protocols described in Chapter 4.9 (Hazards and Hazardous Materials), the proposed GPU would create minimal risk from hazards and hazardous materials. For all potential exposure pathways other than transport of hazardous waste outside the Planning Area, potential impacts would be limited to the particular development site and its immediate vicinity.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.8 Cumulative Hydrology and Water Quality Impacts

The proposed GPU includes numerous policies and implementation programs to improve hydrology and water quality (see EIR chapter 4.10--Hydrology and Water Quality). In addition, implementation of mitigation (UTL-1) will ensure that new developments approved under the GPU will not increase water use in excess of what is identified for supply in 2040 under the most

recent Urban Water Management Plan. Therefore, the proposed Project would not contribute to any significant cumulative flooding impact. Individual development projects could potentially cause soil erosion, contaminant spills, and long-term water quality effects, but would be subject to universally applied regulatory requirements. Compliance with these requirements would ensure that any cumulative impacts would be less than significant.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.9 Cumulative Land Use and Planning Impacts

The proposed GPU would not cause a cumulatively considerable contribution to land use and planning impacts. Project-facilitated redevelopment would result in an intensification of land uses, but would not alter the existing pattern of land use. Although minor changes to the circulation system would occur the existing layout of roadways would remain, and no new roads would be constructed and, therefore, would not create any physical divisions within the Planning Area.

The GPU involves the update of all General Plan elements, the updated land use map indicates increased density and intensity of uses for office and industrial uses, and a subsequent increase in population, shoppers and workers. It should be noted that new development, consistent with the Plan would occur within the footprint of the City and its Sphere of Influence on lands that are typically already disturbed. This includes projects where housing on existing parcels is recycled into higher density and where projects may occur on the limited vacant areas within the City limits. Additionally, the zoning code is being updated concurrently with this GPU and EIR; as such, the updated zoning code will comply with the updated General Plan. The Planning Area is subject to a variety of federal, State, and locally adopted plans designed to mitigate environmental impacts or to preserve important resources. None of the changes affect plans, policies, or regulations of other agencies that have jurisdiction within the Planning Area with respect to avoiding environmental effects.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.10 Cumulative Mineral Resources Impacts

There are no areas of the Planning Area where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists. However, there are hundreds of idle and/or plugged oil and gas well within the limits of the Planning Area. The proposed GPU includes goals and policies intended to assure future development would not result in significant environmental impacts regarding oil wells. Therefore, impacts would be less than significant and no mitigation is required.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.11 Cumulative Population and Housing Impacts

Implementation of the GPU would result in increased residential density which, in turn, would increase the population of Whittier. New development within the City would be guided by the Goals and Policies of the proposed GPU, which provides the framework for addressing the

potential negative impacts sometimes associated with population growth. This EIR concludes that, with the policies and programs included in the GPU, the impacts of this growth would be less than significant (see EIR chapter 17--Population and Housing). Because the proposed Project would not displace residents or housing, the proposed Project would not contribute to a displacement impact. The proposed Project would not make a cumulatively considerable contribution to a significant cumulative population, housing, or employment impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.12 Cumulative Public Services

Fire Protection/Emergency Medical Service (EMS)

As Whittier redevelops over time at higher densities and intensities, additional incremental demands on fire protection and emergency medical services would occur. Adoption of the proposed GPU would not directly create the need for any new or expanded facilities because the Project does not authorize any particular development project or construction activities.

The need for additional facilities would be considered as part of the development review process for individual projects and be subject to environmental review pursuant to CEQA. That environmental review would identify site-specific conditions and physical changes resulting from fire station expansion, construction of new fire stations, or trenching needed for fire flow and water supply. Mitigation would be identified, as necessary, to reduce impacts related to fire and emergency service facilities expansion or new construction, as mandated by CEQA and implemented by the City through its review procedures. Impacts related to the expansion and new construction of fire protection and emergency service facilities would be less than significant with implementation of General Plan policies and environmental review standards. Potential impacts of a new station would be site specific and would not have any cumulative impacts.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

Police Services

As Whittier redevelops over time, increases in residential, office, industrial, and commercial uses would place additional incremental demands on police protection services. The GPU does not include the building of a new substation within the City. If a facility were to be built, it would comply with existing environmental regulations. An analysis of the impacts associated with a possible police protection facility expansion or construction is too speculative because the facility's size, design, and location are not known. If a police protection facility is to be constructed, the facility would be subject to a development review process and environmental review pursuant to CEQA. Environmental review would identify site-specific conditions and physical changes resulting from police station expansion and construction of a new station, and, if necessary appropriate mitigation would be provided to address any potential environmental impacts. Potential impacts of a new station would be site specific and would not have any cumulative impacts.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

Public Schools

New housing would be constructed over the long term as population growth occurs pursuant to the GPU; however, a decrease among the school-age population is anticipated within the Planning Area. The seven school districts serving the Planning Area will be able to serve all students within the Planning Area, and pursuant to State law, collection of fees by school districts is sufficient in mitigating potential impacts to school facilities resulting from long-term growth in the community.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

Parks and Recreational Facilities

Development facilitated by the proposed GPU, in combination with other cumulative development by the year 2040 (the Plan horizon year), would cumulatively increase the demand for parks and recreation facilities. However, these demands would be offset by payment of Development Impact Fees and Quimby Ordinance fees. Pursuant to law, these funding mechanisms are sufficient in mitigating potential impacts to parks and recreation facilities resulting from long-term growth in the community.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

Other Public Facilities

Development facilitated by the proposed Plan, in combination with other cumulative development by the year 2040 (the Plan horizon year), would cumulatively increase the demand for other public facilities, such as the library services. However, a need has not been identified for other new or physically altered public facilities, the construction of which could cause significant environmental impacts. The proposed GPU would not make a cumulatively considerable contribution to a significant cumulative public facility impact.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.1.13 Cumulative Impacts on Utilities and Service Systems

Implementation of mitigation (UTL-1) will ensure that new developments approved under the GPU will not increase water use in excess of what is identified for supply in 2040 under the most recent Urban Water Management Plan. In addition, all development projects in Whittier are required to be consistent with adopted solid waste and recycling regulations and programs, including those described in Chapter 19 (Utilities and Service Systems) of this EIR. The solid waste disposal and recycling facilities used by the City of Whittier have ample capacity, and the applicable regulations and programs have been deliberately designed and adopted to avoid or reduce cumulative solid waste/recycling impacts to less-than-significant levels. The overall cumulative solid waste/recycling impact of cumulative development would be less than significant. The proposed GPU would not make a cumulatively considerable contribution that would significantly impact solid waste disposal facilities.

Mitigation. No cumulatively considerable contribution to a significant cumulative impact has been identified; thus, no mitigation is required.

6.2 GROWTH-INDUCING EFFECTS

CEQA Guidelines Section 15126.2(d) requires that the EIR discuss "...the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

The proposed project would result in an allowable increase of up to 7,495 additional dwelling units, 828,448 square feet of office space, 193,819 square feet of industrial space, and a reduction of 300,102 square feet of commercial space. An estimated increase of approximately 20,190 residents and 1,396 jobs is projected for the 2040 horizon year. However, no substantial, detrimental, growth-inducing effect is expected.

The goals, policies and implementing actions, contained in the proposed GPU address the potentially negative aspects of growth, have been designed to facilitate development efficiently and effectively in an area where roads and infrastructure already exist. The more compact urban form envisioned by the GPU is expected to improve the livability of Whittier by enhancing open space and recreation, improving walking and bicycling opportunities, increasing economic vitality and job opportunities, and reducing vehicle-miles-travelled (VMT). The potential growth-related impacts associated with the GPU have also been evaluated in the topical Chapters of this EIR (Aesthetics, Biological Resources, etc.) and, as appropriate, mitigation measures have been applied to address such impacts. In addition, implementation of the proposed GPU would not involve the extension of roads, major sewer or water lines, or the construction of other major infrastructure facilities that would induce growth in areas adjoining Whittier.

6.3 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." The impacts listed below are identified as significant and unavoidable for one of four reasons: 1) no potentially feasible mitigation has been identified; 2) potential mitigation has been identified but may be found by the Lead Agency to be infeasible; 3) with implementation of feasible mitigation, the impact still would not, or might not, be reduced to a less-than-significant level; or 4) implementation of the mitigation measure would require approval of another jurisdictional agency, whose approval will be pursued by the Lead Agency but cannot be guaranteed as of the publication of this EIR. Because these significant unavoidable impacts "cannot be alleviated without imposing an alternative design" (CEQA Guidelines Section 15126.2[b]), Chapter 4.22 (Alternatives to the Proposed General Plan Update) of this EIR evaluates a range of feasible alternatives that could lessen the identified significant unavoidable impacts, and evaluates the alternatives' ability to meet the Project objectives.

The following impacts have been identified in this EIR as significant and unavoidable:

- Impact AIR-1: Conflict with or Obstruct Implementation of Applicable Air Quality Plans because it would exceed the growth assumption of the South Coast Air Quality Management Plan (AQMP), and NOx emissions would exceed SCASQMD's regional threshold, thereby impeding AQMP attainment.

- Impact AIR-2: Result in a cumulatively considerable net increase of non-attainment criteria pollutants for which the project region is in non-attainment (including NOx).
- Impact AIR-3: Expose sensitive receptors to substantial pollutant concentrations.
- Impact AIR-5: Cause adverse substantial adverse cumulative impacts with respect to air quality (Cumulative Impact).
- Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Impact GHG-2: Conflict with the growth assumptions of the SCAG 2020 RTP/SCS.
- Impact GHG-3: Cause a substantial adverse cumulative impact with respect to greenhouse gas emissions (Cumulative Impact).
- Impact TRANS-2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), related to Vehicle Miles Travelled (VMT).
- Impact TRANS-5: Cause substantial adverse cumulative impacts with respect to transportation and traffic.

The implications of each significant unavoidable impact identified above are described in the particular EIR chapter referenced with the impact. The GPU is being proposed, notwithstanding these effects, to fully achieve the Project objectives described in Chapter 3.0 of this EIR. If the City approves the updated General Plan (or an alternative to the proposed Project) that would result in significant unavoidable impacts, the City must adopt a “Statement of Overriding Considerations” per CEQA Guidelines Section 15093 describing why the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of the approved Plan outweigh its significant unavoidable impacts.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(c) requires that the EIR discuss "significant irreversible environmental changes which would be caused by the proposed Project should it be implemented." Since nearly all of Whittier is developed and the Project will not significantly change the circulation pattern or make other major changes to backbone infrastructure facilities, there would not be any significant irreversible physical changes caused by the GPU. The proposed GPU would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and vehicles, as well as the use of these same resources during long-term operation of individual projects facilitated by the Plan. Because development facilitated by the proposed GPU would be required by law to comply with California Code of Regulations Title 24 (including updates over time) and adopted City energy conservation ordinances and regulations, Plan implementation would not be expected to use energy in a wasteful, inefficient, or unnecessary manner.

The consumption or destruction of other non-renewable or slowly renewable resources would also result during construction, occupancy, and use of individual development sites under the proposed GPU. These resources would include, but would not be limited to, lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. GPU implementation would also irreversibly

use water and solid waste landfill resources. However, development under the proposed GPU would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering ongoing City conservation and recycling programs.