



# **LOS ALAMITOS** **GENERAL PLAN**

## **DRAFT ENVIRONMENTAL IMPACT REPORT**

### **VOLUME I: DRAFT EIR**

State Clearinghouse No. 2013121055

August 2014 | City of Los Alamitos



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**CITY OF LOS ALAMITOS**  
**GENERAL PLAN UPDATE**

State Clearinghouse No. 2013121055  
August 2014 | City of Los Alamitos

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## Abbreviations and Acronyms

### ABBREVIATIONS AND ACRONYMS

|            |                                                             |
|------------|-------------------------------------------------------------|
| AAF        | Los Alamitos Army Airfield                                  |
| AAQS       | ambient air quality standards                               |
| AB         | Assembly Bill                                               |
| AB         | Assembly Bill                                               |
| ACM        | asbestos-containing materials                               |
| ADC        | alternative daily cover                                     |
| ADT        | average daily traffic                                       |
| AELUP      | airport environs land use plan                              |
| af         | acre-foot                                                   |
| afy        | acre-feet per year                                          |
| ALUC       | airport land use commission                                 |
| amsl       | above mean sea level                                        |
| AQMP       | air quality management plan                                 |
| AST        | aboveground storage tank                                    |
| BAU        | business as usual                                           |
| bgs        | below ground surface                                        |
| BMP        | best management practices                                   |
| BPP        | basin production percentage                                 |
| BRT        | bus rapid transit                                           |
| C&I        | Community and Institutional                                 |
| CAA        | Clean Air Act                                               |
| CAFE       | corporate average fuel economy                              |
| Cal/EPA    | California Environmental Protection Agency                  |
| CALGreen   | California Green Building Standards Code                    |
| CalRecycle | California Department of Resources, Recycling, and Recovery |
| Caltrans   | California Department of Transportation                     |
| CARB       | California Air Resources Board                              |
| CBC        | California Building Code                                    |
| CBSP       | OCTA Commuter Bikeways Strategic Plan                       |
| CDFW       | California Department of Fish and Wildlife                  |
| CDR        | Center for Demographic Research                             |



## Abbreviations and Acronyms

|                   |                                                                      |
|-------------------|----------------------------------------------------------------------|
| CEC               | California Energy Commission                                         |
| CEQA              | California Environmental Quality Act                                 |
| CFC               | California Fire Code                                                 |
| CFC               | chlorofluorocarbons                                                  |
| CH <sub>4</sub>   | methane                                                              |
| CHRIS             | California Historical Resources Information System                   |
| CMP               | congestion management program                                        |
| CNEL              | community noise equivalent level                                     |
| CO                | carbon monoxide                                                      |
| CO <sub>2</sub> e | carbon dioxide equivalent                                            |
| COG               | council of governments                                               |
| CPUC              | California Public Utility Commission                                 |
| CRHR              | California Register of Historical Resources                          |
| CSO               | combined sewer overflows                                             |
| CUPA              | Certified Unified Program Agency                                     |
| CWA               | Clean Water Act                                                      |
| dB                | decibel                                                              |
| dBA               | A-weighted decibel                                                   |
| DOF               | Department of Finance                                                |
| EDD               | California Employment Development Department                         |
| EIR               | environmental impact report                                          |
| EPA               | United States Environmental Protection Agency                        |
| °F                | degrees Fahrenheit                                                   |
| FAA               | Federal Aviation Administration                                      |
| FAR               | floor area ratio                                                     |
| FEMA              | Federal Emergency Management Agency                                  |
| FHWA              | Federal Highway Administration                                       |
| FTA               | Federal Transit Administration                                       |
| GHG               | greenhouse gases                                                     |
| gpcd              | gallons per capita per day                                           |
| GSWC              | Golden State Water Company Orange County District West Orange System |
| GWh/yr            | gigawatt hours per year                                              |
| GWP               | global warming potential                                             |

## Abbreviations and Acronyms

|                   |                                                    |
|-------------------|----------------------------------------------------|
| GWRS              | groundwater replenishment system                   |
| H <sub>2</sub> S  | hydrogen sulfide                                   |
| HCD               | Housing and Community Development Department       |
| HCFC              | hydrochlorofluorocarbons                           |
| HCM               | Highway Capacity Manual                            |
| HFC               | hydrofluorocarbons                                 |
| HOV               | high-occupancy vehicle                             |
| HQTA              | high quality transit area                          |
| IPCC              | Intergovernmental Panel on Climate Change          |
| JFTB              | Los Alamitos Joint Forces Training Base            |
| LAUSD             | Los Alamitos Unified School District               |
| LCFS              | low-carbon fuel standard                           |
| LI                | Limited Industrial Overlay                         |
| LID               | low impact development                             |
| LIP               | local implementation plan                          |
| LOS               | level of service                                   |
| µg/m <sup>3</sup> | micrograms per square meter                        |
| M                 | Medical Overlay                                    |
| MERV              | maximum efficiency rating value filter             |
| mgd               | million gallons per day                            |
| MMLOS             | multimodal level of service                        |
| MMT               | million metric tons                                |
| MPAH              | master plan of arterial highways                   |
| mpg               | miles per gallon                                   |
| mph               | miles per hour                                     |
| MPO               | metropolitan planning organization                 |
| MT                | metric ton                                         |
| MU                | Mixed Use                                          |
| MW                | megawatts                                          |
| MWD               | Metropolitan Water District of Southern California |
| MWDOC             | Municipal Water District of Orange County          |
| N <sub>2</sub> O  | nitrous oxide                                      |
| NAHC              | Native American Heritage Commission                |

## Abbreviations and Acronyms

|                   |                                                  |
|-------------------|--------------------------------------------------|
| NASA              | National Aeronautics and Space Administration    |
| NHPA              | National Habitat Preservation Authority          |
| NOP               | Notice of Preparation of an EIR                  |
| NO <sub>x</sub>   | nitrogen oxides                                  |
| NPDES             | National Pollution Discharge Elimination System  |
| NRHP              | National Register of Historic Places             |
| O <sub>3</sub>    | ozone                                            |
| OCFA              | Orange County Fire Authority                     |
| OCFCD             | Orange County Flood Control District             |
| OCP               | Orange County Projections                        |
| OCPL              | Orange County Public Library                     |
| OCS               | Orange County Sanitation District                |
| OCTA              | Orange County Transportation Authority           |
| OCTAM             | Orange County Traffic Analysis Model             |
| OCWD              | Orange County Water District                     |
| OEHHA             | Office of Environmental Health Hazard Assessment |
| OES               | California Office of Emergency Services          |
| OPR               | Governor's Office of Planning and Research       |
| Pb                | lead                                             |
| PFC               | perfluorocarbons                                 |
| PI                | Planned Industrial                               |
| PM                | particulate matter                               |
| PM <sub>10</sub>  | coarse inhalable particulate matter              |
| PM <sub>2.5</sub> | fine inhalable particulate matter                |
| PO                | Professional Office                              |
| ppb               | parts per billion                                |
| ppd               | pounds per day                                   |
| ppm               | parts per million                                |
| PPV               | peak particle velocity                           |
| PSAP              | public safety answering point                    |
| PVC               | polyvinyl chloride                               |
| QSA               | Quantification Settlement Agreement              |
| R/LAASD           | Rossmoor/Los Alamitos Area Sewer District        |

## Abbreviations and Acronyms

|                 |                                                                 |
|-----------------|-----------------------------------------------------------------|
| R3              | Multifamily Residential                                         |
| RB              | Retail Business                                                 |
| RCRA            | Resource Conservation and Recovery Act                          |
| REC             | recognized environmental condition                              |
| RHNA            | regional housing needs assessment                               |
| RMP             | risk management plan                                            |
| RMS             | root mean square                                                |
| ROG             | reactive organic gases (see VOC)                                |
| ROW             | right-of-way                                                    |
| RPS             | renewable portfolio standard                                    |
| RTP             | regional transportation plan                                    |
| RTP/SCS         | regional transportation plan / sustainable communities strategy |
| RWQCB           | Regional Water Quality Control Board                            |
| SB              | Senate Bill                                                     |
| SCAG            | Southern California Association of Governments                  |
| SCAQMD          | South Coast Air Quality Management District                     |
| SCCIC           | South Central Coastal Information Center                        |
| SCE             | Southern California Edison                                      |
| SCS             | sustainable communities strategy                                |
| SF <sub>6</sub> | sulfur hexafluoride                                             |
| SHPO            | California State Historic Preservation Officer                  |
| SIP             | state implementation plan                                       |
| SLM             | sound level meter                                               |
| SO <sub>2</sub> | sulfur dioxide                                                  |
| SO <sub>4</sub> | sulfates                                                        |
| SoCAB           | South Coast Air Basin                                           |
| SoCal Gas       | Southern California Gas Company                                 |
| SOI             | sphere of influence                                             |
| SO <sub>x</sub> | sulfur oxides                                                   |
| SP              | service population                                              |
| SRA             | source receptor area                                            |
| STAA            | Surface Transportation Assistance Act                           |
| TAC             | toxic air contaminants                                          |

## Abbreviations and Acronyms

|        |                                                        |
|--------|--------------------------------------------------------|
| TAZ    | traffic analysis zone                                  |
| T-BACT | best available control technologies                    |
| TIA    | traffic impact analysis                                |
| TTCP   | traditional tribal cultural places                     |
| UFP    | ultrafine particle                                     |
| UP     | Union Pacific Railroad                                 |
| USMC   | US Marine Corps                                        |
| V/C    | volume-to-capacity ratio                               |
| VdB    | velocity decibels                                      |
| VMT    | vehicle miles traveled                                 |
| VOC    | volatile organic compounds                             |
| vphpl  | vehicles per hour per lane                             |
| WCI    | Western Climate Initiative                             |
| WEROC  | Water Emergency Response Organization of Orange County |
| WQMP   | water quality management plan                          |
| WRD    | Water Replenishment District of Southern California    |
| WSA    | water supply assessment                                |
| WSAP   | water supply allocation plan                           |
| WSDM   | water surplus and drought management plan              |

## Abbreviations and Acronyms

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# 1. Executive Summary

---

## 1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Los Alamitos General Plan Update. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a public document designed to provide the public and local and State governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making. This document focuses on those impacts determined to be potentially significant as discussed in the Initial Study completed for this project (see Appendix A).

This DEIR has been prepared pursuant to the requirements of CEQA. The City of Los Alamitos, as the lead agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel from other departments and review of all technical subconsultant reports.

Data for this DEIR was obtained from on-site field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments (air quality, biological resources, cultural resources, hazardous materials, hydrology and water quality, noise, transportation and traffic, and water supply).

## 1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. The six main objectives of this document as established by CEQA are listed below:

- 1) To disclose to decision makers and the public the significant environmental effects of proposed activities.
- 2) To identify ways to avoid or reduce environmental damage.
- 3) To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
- 4) To disclose to the public reasons for agency approval of projects with significant environmental effects.
- 5) To foster interagency coordination in the review of projects.
- 6) To enhance public participation in the planning process.

## 1. Executive Summary

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines and provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and must adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

### 1.2.1 EIR Format

This DEIR has been formatted as described below.

- Section 1. Executive Summary:** Summarizes the background and description of the proposed project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the project.
- Section 2. Introduction:** Describes the purpose of this EIR, background on the project, the Notice of Preparation, the use of incorporation by reference, and Final EIR certification.
- Section 3. Project Description:** A detailed description of the project, the objectives of the proposed project, the project area and location, approvals anticipated to be included as part of the project, the necessary environmental clearances for the project, and the intended uses of this EIR.
- Section 4. Environmental Setting:** A description of the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, from both a local and regional perspective. The environmental setting provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed project.
- Section 5. Environmental Analysis:** Provides, for each environmental parameter analyzed, a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance of the adverse impacts of the project after mitigation is incorporated and the potential cumulative impacts associated with the proposed project and other existing, approved, and proposed development in the area.



## 1. Executive Summary

- Section 6. Significant Unavoidable Adverse Impacts:** Describes the significant unavoidable adverse impacts of the proposed project.
- Section 7. Alternatives to the Proposed Project:** Describes the impacts of the alternatives to the proposed project, including the No Project Alternative and a Reduced Intensity Alternative.
- Section 8. Impacts Found Not to Be Significant:** Briefly describes the potential impacts of the project that were determined not to be significant by the Initial Study and were therefore not discussed in detail in this EIR.
- Section 9. Significant Irreversible Changes Due to the Proposed Project:** Describes the significant irreversible environmental changes associated with the project.
- Section 10. Growth-Inducing Impacts of the Project:** Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.
- Section 11. Organizations and Persons Consulted:** Lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.
- Section 12. Qualifications of Persons Preparing EIR:** Lists the people who prepared this EIR for the proposed project.
- Section 13. Bibliography:** A bibliography of the technical reports and other documentation used in the preparation of this EIR for the proposed project.
- Appendices.** The appendices for this document (presented in PDF format on a CD attached to the front cover) contain the following supporting documents:

- Appendix A: Initial Study/Notice of Preparation
- Appendix B: Notice of Preparation Comments
- Appendix C: Air Quality and GHG Modeling
- Appendix D: Paleontological and Cultural Resources Report
- Appendix E: Noise Modeling
- Appendix F: Service Letter Responses
- Appendix G: Transportation Study

### 1.2.2 Type and Purpose of This DEIR

This DEIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are typically more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the State CEQA Guidelines, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the City of (as lead agency) with

## 1. Executive Summary

the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the City with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis.

Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (Guidelines Section 15168[c]). When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (Guidelines Section 15168[c][3]). If a subsequent activity would have effects not within the scope of the Program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The CEQA Guidelines (Section 15168[h]) encourage the use of Program EIRs, citing five advantages:

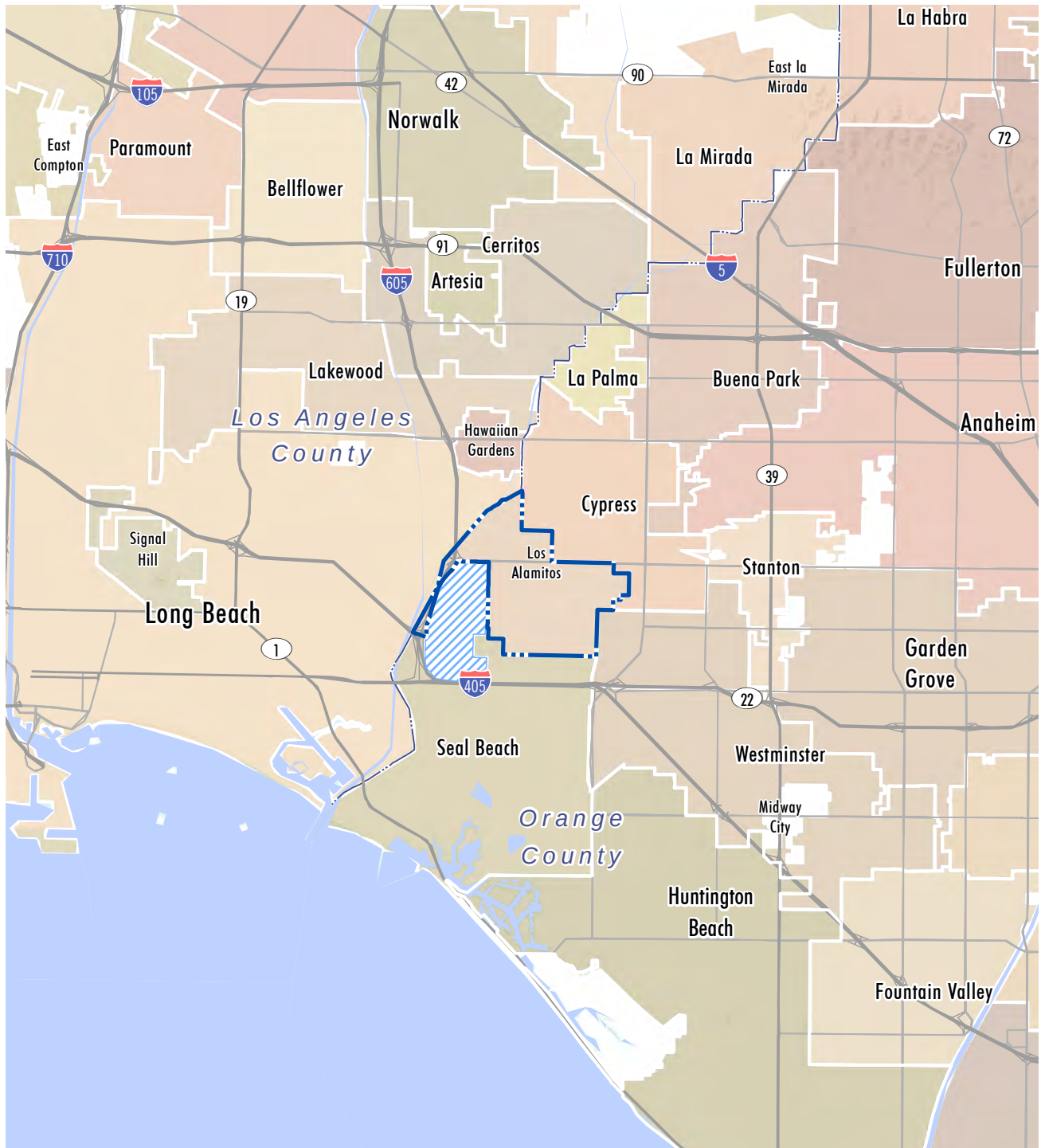
- Provide a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR;
- Focus on cumulative impacts that might be slighted in a case-by-case analysis;
- Avoid continual reconsideration of recurring policy issues;
- Consider broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them;
- Reduce paperwork by encouraging the reuse of data (through tiering).

### 1.3 PROJECT LOCATION

The City of Los Alamitos is on the northwestern boundary of Orange County, approximately 23 miles (driving distance) south of downtown Los Angeles. As shown in Figure 1-1, *Regional Location*, the City is surrounded by highly urbanized areas of Orange and Los Angeles Counties and abuts or is near the cities of Long Beach, Seal Beach, Hawaiian Gardens, Cypress, and Garden Grove. Interstate 605 (I-605) runs north-south along the City's western boundary. No other interstate or state route crosses the City. However, I-405 travels northwest to southeast around the City's southern boundary, and State Route 22 (SR-22) travels east-west approximately 0.4 miles south of the City, providing regional access to Los Alamitos. The City's sphere of influence (SOI) encompasses the unincorporated community of Rossmoor on the southwest side of the City (see Figure 1-2, *Citywide Aerial*).

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Figure 1-1 Regional Location



## 1. Executive Summary

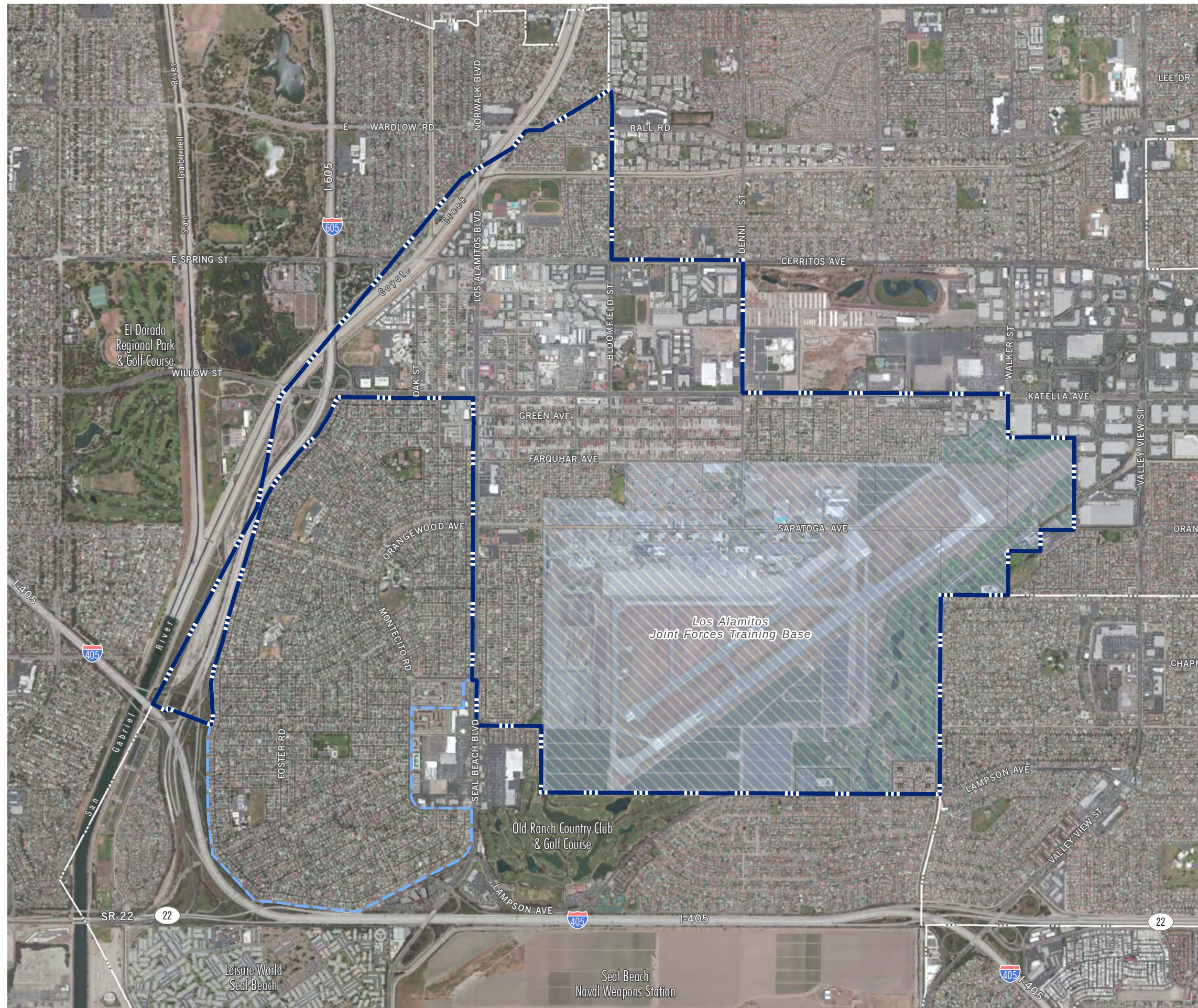
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Figure 1-2 Citywide Aerial

-  City Boundary
-  Sphere of Influence
-  Los Alamitos Joint Forces Training Base





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## 1. Executive Summary

The City encompasses approximately 2,619 acres, and its SOI extends to the 982-acre unincorporated community of Rossmoor. Approximately 50 percent of the City's total land area is occupied by the Los Alamitos Joint Forces Training Base (JFTB), and the remaining area is developed with urban uses. As shown in Figure 1-3, *Existing Land Use*, the urban uses throughout the City include Single Family Residential, Multi-Family Residential, Mobile Home Residential, General Office, Business Park, Medical Office, Commercial, Industrial, Public/Quasi Public Facility, Parks, Water, and rights-of-way and easements. Part of the Coyote Creek and Carbon Creek channels, approximately 45 acres, flow through the City and into the San Gabriel River farther south along the City's western boundary. The City has only three acres of vacant land.

### 1.4 PROJECT SUMMARY

The proposed project is an update to the City of Los Alamitos General Plan. It addresses the required elements and one optional element, as listed below. This update is intended to provide guidance for long term growth, maintenance, and preservation in the City over the next 20-plus years. It includes Rossmoor as part of the City's SOI to understand future demands for services and implications for growth in Rossmoor and the City. The proposed General Plan Update identifies the Los Alamitos JFTB as Community & Institutional/JFTB. Although the Los Alamitos JFTB is within the City's municipal boundary, the City has no jurisdiction or land use authority on this US military installation.

#### Proposed General Plan Elements

The Los Alamitos General Plan Update reorganizes the current General Plan into the following seven elements:

- The **Land Use Element** guides the distribution, location, and extent of land uses for housing, business, industry, institutions, open space, and recreation in the City and its SOI. The element includes goals, policies, and implementation direction, and it establishes development criteria and standards, including building intensity and residential density.
- The **Economic Development Element** includes long-term goals for the community and policies to guide decision making regarding attracting and preserving skilled employment, leveraging economic resources, spurring continuing and new investment, and maintaining a fiscal balance.
- The **Open Space, Recreation, and Conservation Element** focuses on natural and built recreational resources, both the preservation of existing open spaces and recreational facilities and the development of new resources. It also emphasizes the conservation of natural, cultural, and historic resources in the community to maximize their value and prevent their exploitation and destruction.
- The **Mobility and Circulation Element** addresses the identification, location, and extent of existing and proposed major thoroughfares, transportation routes, multimodal transportation options, and local public utilities and facilities.

## 1. Executive Summary

- The **Housing Element** contains the official policies for the construction, rehabilitation, and preservation/conservation of housing in the City based on existing and projected needs. The housing element was recently updated for the 2014–2021 planning period and remains a part of the Los Alamitos General Plan, but is not part of this comprehensive General Plan Update.
- The **Public Facilities and Safety Element** provides long-term goals and policies to maintain and improve public services and to ensure that future growth is appropriately served by well-planned infrastructure systems. The element also identifies natural and man-made hazards, including noise, and establishes policies to protect the people and property in the community.
- The **Growth Management Element** is required for Orange County jurisdictions (Measure M) and guides growth and development so it is commensurate with the City’s ability to provide an adequate circulation system and ensure ongoing compatibility with military operations at the Joint Forces Training Base.

### Proposed Land Use Designations

The General Plan Update includes the following land use designations, shown in Table 1-1, *Land Use Designations*, which reflect the City’s desire to remain a balanced and fiscally sustainable community.

**Table 1-1 Land Use Designations**

| Land Use Designation and Density / Intensity Range                                    | Description of Typical Uses                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>City of Los Alamitos</b>                                                           |                                                                                                                                                                                                                                                                                                                          |
| <b>Residential</b>                                                                    |                                                                                                                                                                                                                                                                                                                          |
| Single Family Residential<br>1–6 du/ac                                                | Single family detached homes on individual lots.                                                                                                                                                                                                                                                                         |
| Limited Multiple Family Residential<br>6–20 du/ac<br>Max office space 500 square feet | Single family detached and attached residences, including small lot subdivisions, townhouses, courtyard homes, duplexes, and triplexes. Live/work uses are also permitted, subject to the uses permitted by the Professional Office designation.                                                                         |
| Multiple Family Residential<br>20–30 du/ac                                            | Single family detached and attached residences, including all development permitted in other residential categories as well as stacked flats and other building types with 4 or more units. Other uses such as convalescent hospitals, churches, and mobile home parks are also permitted subject to special procedures. |
| <b>Commercial and Employment</b>                                                      |                                                                                                                                                                                                                                                                                                                          |
| Retail Business<br>Max FAR 1.00                                                       | Commercial retail uses that include supermarkets, drugstores, personal services, restaurants, and facilities that offer a variety of retail products. General services such as auto-related sales and repair, nurseries, plumbing outlets, and home appliance stores are permitted subject to special review procedures. |
| Professional Office<br>Max FAR 1.50                                                   | Professional and general office uses such as law, insurance, medical, dental, engineering, and financial services.                                                                                                                                                                                                       |
| Planned Industrial<br>Max FAR 1.50                                                    | Light industrial, manufacturing, and office park uses such as research and development, manufacturing, boat building, appliance repair and service, plastic fabrication, and printing plants. Commercial recreation uses are not permitted.                                                                              |
| Limited Industrial                                                                    | All of the uses permitted in Planned Industrial as well as commercial recreation uses within industrial                                                                                                                                                                                                                  |



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Table 1-1 Land Use Designations

| Land Use Designation and Density / Intensity Range | Description of Typical Uses                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max FAR 1.50                                       | buildings such as soccer, gymnastics, archery, batting cages, and other indoor health/fitness types of activities.                                                                                                                                                                                                                                                                                                                    |
| Medical Overlay<br>Max FAR 3.0                     | All of the uses permitted in Planned Industrial are permitted, but the City encourages medical uses on the north side of Katella Avenue adjacent to the Los Alamitos Medical Center campus.                                                                                                                                                                                                                                           |
| <b>Special Use</b>                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Community & Institutional<br>Max FAR 3.0           | Public and quasi-public uses such as the civic center, schools, hospitals, fire stations, parks, churches, utilities, and other similar uses.                                                                                                                                                                                                                                                                                         |
| Community & Institutional/JFTB                     | The Joint Forces Training Base is an active military installation and airfield that provides support and training facilities for military units and other national, state, and local organizations to include emergency operations. Development and activities on the base are governed by the federal government.                                                                                                                    |
| Mixed Use<br>Max FAR 2.0<br>30 du/ac               | Vertical or horizontal mix of commercial, office, and/or residential uses on the same parcel. Retail is preferred on the ground floor. Office uses and attached single-family and multiple-family housing should be above the ground floor.                                                                                                                                                                                           |
| Specific Plan<br>Max FAR 4.0<br>30 du/ac           | The City may require a specific plan for development with more than 50,000 proposed gross square feet of building, including residential space if a part of a mixed-use project. This requirement does not apply to development in the Joint Forces Training Base or development approved under and consistent with an existing specific plan. No specific plan shall deviate from the general plan without a general plan amendment. |
| Easement Overlay                                   | Applied to right-of-way areas for trails and open space.                                                                                                                                                                                                                                                                                                                                                                              |
| Open Area                                          | Land used for flood control purposes along Coyote Creek and the San Gabriel River. Trails and recreational uses are permitted in coordination with the Orange County Flood Control District.                                                                                                                                                                                                                                          |
| <b>Rossmoor / Sphere Of Influence (SOI)</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Suburban Residential<br>0.5 –18 du/ac              | Governed by the latest (2011) Orange County General Plan, which provides the following guidance:<br>- Wide range of housing types, from estates on large lots to attached dwelling units (townhomes, condominiums, and clustered arrangements).<br>- Neighborhood/convenience commercial sites are assumed to be consistent, subject to additional guidelines                                                                         |

## Proposed Land Use

Table 1-2, *Proposed General Plan Land Use and Buildout Projections*, outlines the proposed land use and details the projected population, employment, dwelling units, and nonresidential square footage of development planned for under the General Plan Update. The proposed land use designations are also shown on Figure 1-4, *Proposed Land Use Plan*. The theoretical buildout was based largely on the assumption that the majority of the City and Rossmoor would not change. Some incremental intensification was assumed through small projects (e.g., adding a second dwelling unit or expanding a storefront). A handful of parcels were identified as areas where more substantial change could occur. For those parcels, the City created a set of projections and estimated the amount of development that could occur between now and General Plan buildout. The General Plan Update would have a potential buildout total of 8,735 residential units, 23,003 people, 8,881,442 square feet of nonresidential development, and 18,430 jobs in the City and unincorporated community of Rossmoor.

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### *Los Alamitos Joint Forces Training Base*

No changes are proposed to the land use designations of the Los Alamitos JFTB. The General Plan Update identifies the JFTB as Community & Institutional/JFTB. Although the JFTB is within the City's municipal boundary, the City has no jurisdiction or land use authority on this US military installation. Consequently, no changes from existing conditions are assumed within the JFTB as part of the City's General Plan Update.

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**Table 1-2 Proposed General Plan Land Use and Buildout Projections**

| Category                                    | Acres        | Residential Units | Population    | Nonresidential Square Feet | Employment    |
|---------------------------------------------|--------------|-------------------|---------------|----------------------------|---------------|
| <b>Los Alamitos</b>                         | <b>2,619</b> | <b>4,772</b>      | <b>12,463</b> | <b>8,455,330</b>           | <b>18,022</b> |
| Community & Institutional                   | 152          | —                 | —             | 928,409                    | 645           |
| Community & Institutional/JFTB              | 1,318        | —                 | —             | 1,397,993                  | 675           |
| Easement                                    | 4            | —                 | —             | —                          | —             |
| Limited Industrial                          | 8            | —                 | —             | 106,286                    | 185           |
| Limited Multi-Family Residential            | 18           | 189               | 494           | —                          | —             |
| Medical Overlay                             | 13           | —                 | —             | 357,255                    | 1,429         |
| Mixed Use                                   | 19           | 14                | 35            | 626,644                    | 2,279         |
| Multi-Family Residential                    | 145          | 3,017             | 7,880         | —                          | —             |
| Open Area                                   | 82           | —                 | —             | —                          | —             |
| Planned Industrial                          | 141          | —                 | —             | 2,794,587                  | 4,860         |
| Professional Office                         | 22           | 3                 | 8             | 543,573                    | 2,174         |
| Retail Business <sup>1</sup>                | 86           | —                 | —             | 1,117,758                  | 4,431         |
| Single Family Residential                   | 258          | 1,549             | 4,046         | —                          | —             |
| Specific Plan                               | 17           | —                 | —             | 582,824                    | 1,345         |
| Suburban Residential                        | 0            | —                 | —             | —                          | —             |
| ROW                                         | 336          | —                 | —             | —                          | —             |
| <b>Rossmoor</b>                             | <b>982</b>   | <b>3,963</b>      | <b>10,540</b> | <b>426,112</b>             | <b>408</b>    |
| Suburban Residential                        | 749          | 3,963             | 10,540        | 426,112                    | 408           |
| ROW                                         | 233          | —                 | —             | —                          | —             |
| <b>Grand Total</b>                          | <b>3,601</b> | <b>8,735</b>      | <b>23,003</b> | <b>8,881,442</b>           | <b>18,430</b> |
| Increase from Existing Conditions           | 0            | 532               | 1,385         | 903,465                    | 3,770         |
| Change Compared to the Current General Plan | 0            | -667              | -1,741        | -107,612                   | 1,787         |

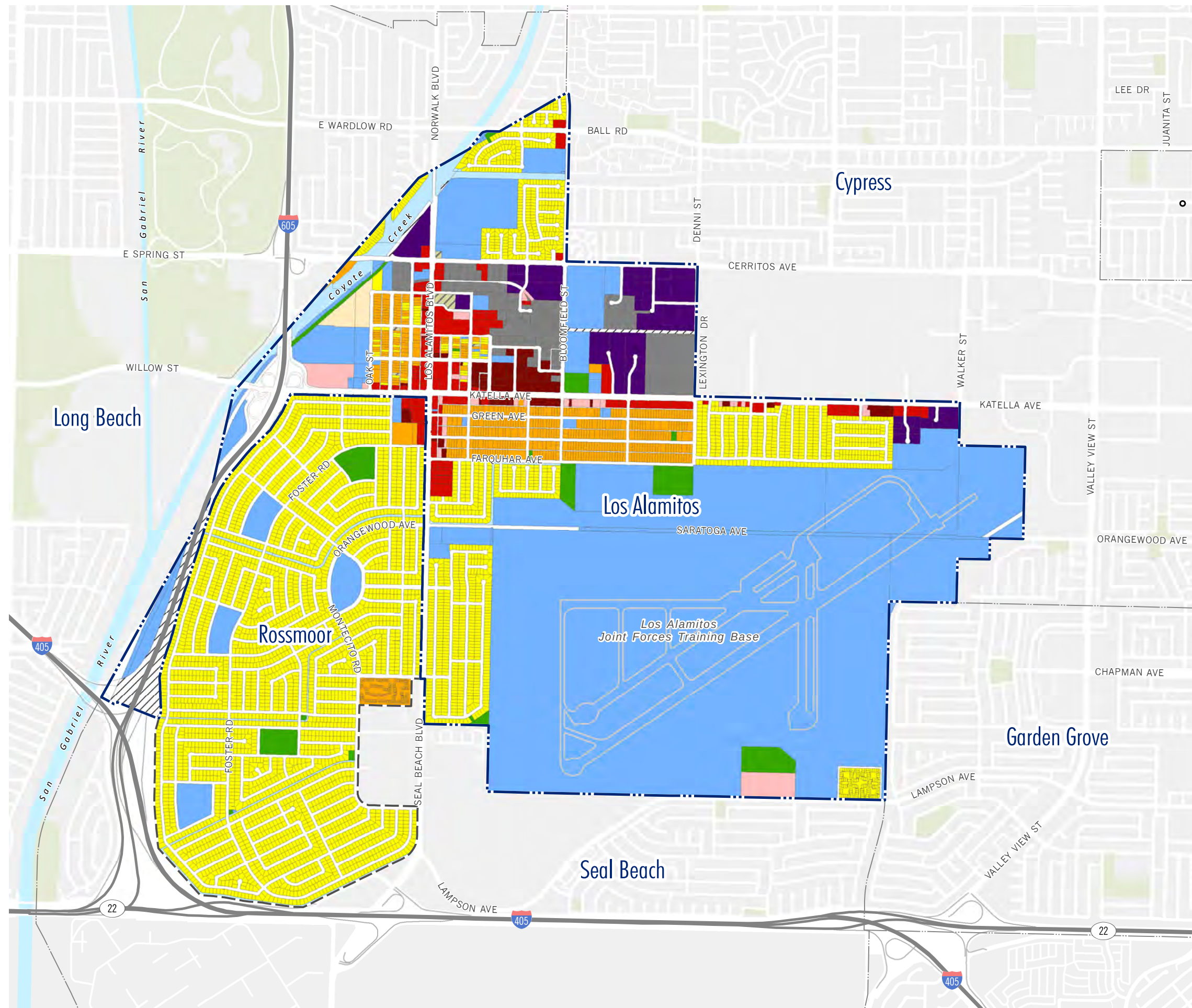
## 1. Executive Summary

**Table 1-2 Proposed General Plan Land Use and Buildout Projections**

| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Acres | Residential Units | Population | Nonresidential Square Feet | Employment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|------------|----------------------------|------------|
| <p>Assumptions:</p> <p>Residential Units: The following density assumptions were used unless adjusted by a specific project or to reflect the current buildout of an existing neighborhood.</p> <ul style="list-style-type: none"> <li>Single Family Residential: 6 units per acre</li> <li>Limited Multi Family Residential: 12 units per acre</li> <li>Multi Family Residential: 22 units per acre</li> <li>Suburban Residential: 5.65 units per acre</li> </ul> <p>Mixed Use: applied on a parcel-by-parcel basis; when residential assumed, the residential density was projected at 22 units per acre</p> <p>Population: 2.70 persons per household in the City of Los Alamitos; 2.75 persons per household in Rossmoor.</p> <p>Nonresidential Square Footage: Projections assumed an increase of approximately 10 percent above existing building square footage.</p> <p>Employment: The following employment generation factors were used.</p> <ul style="list-style-type: none"> <li>Retail Business: 300 square feet per employee</li> <li>Planned Industrial: 575 square feet per employee</li> <li>Community &amp; Institutional/JFTB: 1,000 square feet per employee</li> <li>Mixed Use: 275 square feet per employee</li> <li>Professional Office: 250 square feet per employee</li> <li>Limited Industrial: 575 square feet per employee</li> <li>Community &amp; Institutional: 1,000 square feet per employee</li> <li>Medical Overlay: 250 square feet per employee</li> <li>Specific Plan: per assumptions in Los Alamitos Medical Center Specific Plan EIR</li> </ul> |       |                   |            |                            |            |

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### Figure 1-3 Existing Land Use



- Single Family Residential
- Multi-Family Residential
- Mobile Home Residential
- General Office
- Business Park
- Medical Office
- Commercial
- Industrial
- Public/Quasi Public Facility
- Parks
- Water
- Vacant
- Other/Easement
- City Boundary
- Sphere of Influence
- Other City Boundaries

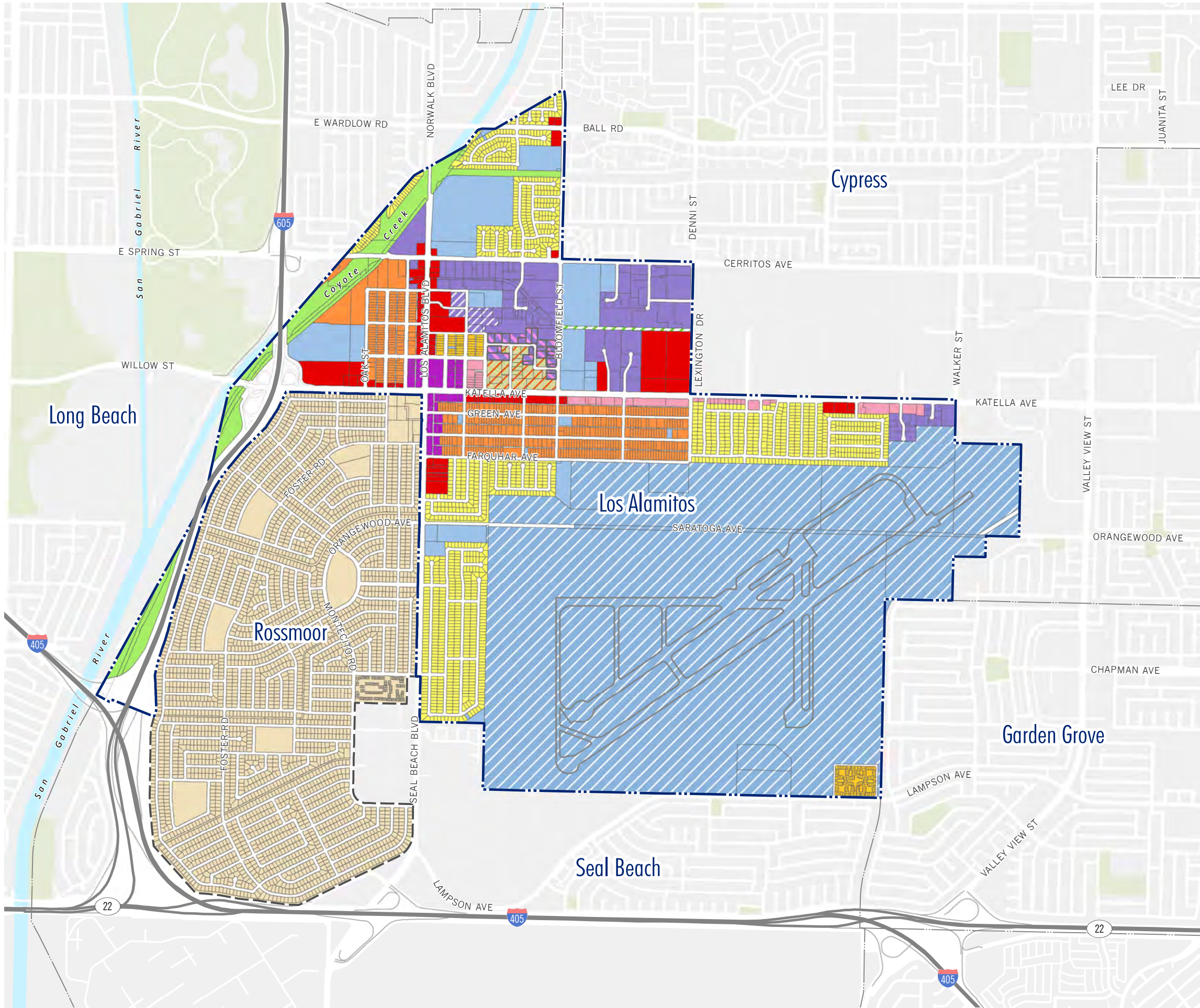
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Figure 1-4 Proposed Land Use Plan



Residential

- Single Family Res. 1-6 DU/Ac
- Limited Multi Family Res. 6-20 DU/Ac
- Multi Family Res. 20-30 DU/Ac

Commercial and Employment

- Retail Business
- Professional Office
- Planned Industrial
- Limited Industrial
- Medical Overlay

Special Use

- Mixed Use
- Specific Plan
- Community & Institutional
- Community & Institutional/JFTB
- Open Area
- Easement Overlay

Rossmoor

- Suburban Residential
- City Boundary
- Sphere of Influence
- Other City Boundaries

Note:  
Rossmoor is within the City's SOI but it also remains within & under the jurisdiction of the County of Orange. Accordingly, the Land Use Plan shows the County land use designation of Suburban Residential.



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### 1.5 SUMMARY OF PROJECT ALTERNATIVES

CEQA states that an EIR must address “a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain 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” (14 California Code of Regulations 15126.6[a]).

#### 1.5.1 No Project/Current General Plan Alternative

In the No Project/ Current General Plan Alternative, the General Plan Update would not be implemented by the City. The current General Plan, including land use designations in the Land Use Element, would remain in effect. Overall, land use designations between the current general plan and the proposed general plan are similar. However, the proposed land use plan would allow for more intense land uses along Katella through creation of a Mixed Use designation. Some additional retail employment would replace office and industrial employment through changes from Professional Office and Planned Industrial to Retail Business designations along Katella Avenue.

Additionally, the Mixed Use designation would create the opportunity for new residential on the upper floors of mixed use buildings around the intersection of Katella Avenue and Los Alamitos Boulevard. A few parcels designated for Planned Industrial near the intersection of Los Alamitos Boulevard and Cerritos Avenue would be converted to Multi Family Residential. The current general plan; however, includes an assumption of roughly 850 housing units on the portion of the Los Alamitos JFTB designated for Multi-Family Residential. These housing units are not projected under the proposed General Plan Update. Under the No Project/Current General Plan Alternative, these changes would not occur. As a result, the current General Plan allows for more residential growth and less employment growth.

Impacts of this alternative would be similar to the proposed project for aesthetics, cultural resources, hazards and hazardous materials, land use and planning, noise, and utilities and service systems. Impacts of this alternative would be slightly reduced compared to those of the proposed project for air quality, greenhouse gas (GHG) emissions, population and housing, and traffic. This alternative would slightly increase public services and recreational impacts compared to those of the proposed project. This alternative would not reduce any significant and unavoidable impacts of the proposed project to less than significant.

This alternative would not provide a comprehensive update to the City’s General Plan consistent with California Government Code Sections 65300 et seq. This alternative would not revise the City’s General Plan pursuant to various state requirements for general plans, for instance, Assembly Bill 1358, the Complete Streets Act of 2008. In addition, although this alternative would meet some of the objectives, it would not meet the project objectives to the same extent as the proposed project. The proposed General Plan Update would change the roadway configuration of Los Alamitos north of Katella Avenue to create a more pedestrian-friendly downtown. Consequently, this alternative would not meet the project objectives to create an attractive pedestrian-friendly downtown, introduce pedestrian bridges, maximize retail opportunities along Katella Avenue, relocate City hall, or establish centralized parking options.

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### 1.5.2 Arrowhead Products Site Alternative

In the Arrowhead Products Site Alternative, the General Plan Update would be updated in its current form with the exception to the proposed redesignation of the 28-acre site from industrial to retail uses on the Arrowhead Products site. The Arrowhead Products facility has been a fixture in Los Alamitos for decades and is a major employer in the City. However, the site's location along Katella Avenue, large size (28 acres), and proximity to regional retail in Cypress positions the site as a good candidate for retail development. Consequently, under the proposed project this site could redevelop if Arrowhead Products decides to move locations or change its business. Under this alternative, the Arrowhead Products site would remain designated Planned Industrial. Industrial land uses generate less traffic than retail uses, and no changes from existing conditions would occur for this parcel. Consequently, this alternative was chosen because it would reduce traffic, air quality, GHG emissions, and noise impacts of the proposed project. The remaining portions of the City and Rossmoor would be built out in accordance with the proposed project.

Impacts of this alternative would be similar to the proposed project for aesthetics, cultural resources, hazards and hazardous materials, land use and planning, public services, recreation, and utilities and service systems. Impacts of this alternative would be slightly reduced compared to those of the proposed project for air quality, GHG emissions, noise, population and housing, and traffic. This alternative would not reduce any significant and unavoidable impacts of the proposed project to less than significant.

This alternative would meet the project objectives but would not meet the objective to maximum retail opportunities along Katella Avenue to the same extent as the proposed project.

The Arrowhead Products Site Alternative has been identified as the environmentally superior alternative. This alternative would lessen impacts associated with air quality, GHG emissions, noise, population, and transportation and traffic impacts of the proposed project. The remaining impacts are generally the same as the proposed project.

### 1.5.3 Increased Residential Land Use Alternative

In the Increased Residential Land Use Alternative, the General Plan Update would be updated in its current form with the exception of 13 acres fronting Katella just east of Interstate 605 (I-605). Approximately 3 acres of this site is currently occupied by public use properties (City Hall, Police Department, City Yard, Chamber of Commerce, and the Community Center), and the western 10 acres is occupied by SuperMedia.

Under the proposed project, these parcels are proposed to be designated for commercial/retail land use. Under this alternative, the land use plan would designate this site for multi-family residential use (assumed 22 units per acre) to increase the amount of residential land uses and improve the job-housing balance in the City. Improving the jobs-housing balance can reduce vehicle miles traveled (VMT); traffic congestion; and associated traffic, air quality, and GHG emissions impacts of the proposed project.

Impacts of this alternative would be similar to the proposed project for aesthetics, cultural resources, hazards and hazardous materials, land use and planning, noise, and utilities and service systems. Impacts of this alternative would be slightly reduced compared to those of the proposed project for air quality, GHG

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emissions, population and housing, and traffic. This alternative would slightly increase public services and recreational impacts compared to those of the proposed project. This alternative would not reduce any significant and unavoidable impacts of the proposed project to less than significant.

This alternative would meet the project objectives but would not meet the objective to maximize retail opportunities along Katella Avenue to the same extent as the proposed project.

### 1.6 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to the following:

1. Whether this DEIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, and mitigation measures should be adopted or modified.
5. Whether other mitigation measures should be applied to the project besides those identified in the DEIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

### 1.7 AREAS OF CONTROVERSY

Prior to the preparation of the DEIR, an EIR scoping meeting was held on January 7, 2014, at the Los Alamitos City Hall to determine the concerns of interested parties regarding the Los Alamitos General Plan Update. These and other environmental issues are fully addressed in Chapter 5 of this DEIR. Table 1-3, *Notice of Preparation Comment Summary*, summarizes the issues identified by respondents to the NOP. The table also provides references to the sections of this DEIR in which these issues are evaluated. No other areas of controversy are known to the lead agency.

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**Table 1-3 Notice of Preparation Comment Summary**

| Commenting Agency/Person                           | Comment Type                                                                                                                               | Comment Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Issue Addressed In                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California Department of Transportation (Caltrans) | Traffic                                                                                                                                    | <ul style="list-style-type: none"> <li>Traffic impacts on state transportation facilities, including I-605 and use of the Highway Capacity Manual (HCM) for these facilities.</li> <li>Focus on land use and transportation strategies that reduce single-occupant vehicles.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Section 5.11, <i>Transportation and Traffic</i>                                                                                                                                                                                                                                                                                                                |
| Southern California Gas Company (SoCalGas)         | Utilities                                                                                                                                  | <ul style="list-style-type: none"> <li>Notification that gas service is available in the project area.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Section 5.12, <i>Utilities and Service Systems</i>                                                                                                                                                                                                                                                                                                             |
| Native American Heritage Commission (NAHC)         | Cultural Resources                                                                                                                         | <ul style="list-style-type: none"> <li>Identify potential impacts to paleontological and cultural resources.</li> <li>Consultation with Native American tribes.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Section 5.3, <i>Cultural Resources</i>                                                                                                                                                                                                                                                                                                                         |
| Orange County Fire Authority (OCFA)                | Public Services                                                                                                                            | <ul style="list-style-type: none"> <li>Notification that OCFA provides fire protection and emergency services</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Section 5.9, <i>Public Services</i>                                                                                                                                                                                                                                                                                                                            |
| Orange County Sanitation District (OCSD)           | Utilities                                                                                                                                  | <ul style="list-style-type: none"> <li>Notification that OCSD provides regional sewer service and is a responsible agency when project require dewatering/discharges to the sewer system.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Section 5.12, <i>Utilities and Service Systems</i>                                                                                                                                                                                                                                                                                                             |
| City of Cypress                                    | Project Description, Hazards and Hazardous Materials, Population and Housing, Noise, Greenhouse Gas Emissions, Transportation and Traffic, | <ul style="list-style-type: none"> <li>Comments on the Housing Element and its associated Negative Declaration.<sup>1</sup></li> <li>Transportation impacts outside of the City of Los Alamitos' jurisdictional boundary.</li> <li>Prior CEQA documentation for the 2010 General Plan (1990).</li> <li>CEQA Baseline is the existing conditions and not the Current General Plan.</li> <li>Advanced planning on the Los Alamitos JFTB.</li> <li>Land use designations in the City of Los Alamitos and SOI.</li> <li>Supplemental EIR v. EIR for the General Plan Update.</li> <li>Project description for the General Plan Update and availability.</li> <li>Population and Housing impacts of the General Plan Update.</li> <li>Environmental checklist used for the General Plan Updated EIR.</li> <li>List of Agencies contacted and posting with the Governor's Office of Planning and Research (OPR)</li> <li>Objectives for relocating City Hall.</li> <li>Notice of Preparation of an EIR and Scoping Meeting.</li> </ul> | Chapter 3, Project Description.<br>Section 5.2, <i>Air Quality</i><br>Section 5.3, <i>Cultural Resources</i><br>Section 5.4, <i>Greenhouse Gas Emissions</i><br>Section 5.5, <i>Hazards and Hazardous Materials</i><br>Section 5.8, <i>Population and Housing</i><br>Section 5.9, <i>Public Services</i><br>Section 5.12, <i>Utilities and Service Systems</i> |

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**Table 1-3 Notice of Preparation Comment Summary**

| Commenting Agency/Person                         | Comment Type                            | Comment Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Issue Addressed In                                                                                                                                                                 |
|--------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Orange County Airport Land Use Commission (ALUC) | Airport Compatibility-Hazards and Noise | <ul style="list-style-type: none"> <li>Notification that the City of Los Alamitos is within the Airport Environs Land Use Plan (AELUP) Notification Area for the Los Alamitos JFTB.</li> <li>Buildings more than 200 feet above ground level must file with the Federal Aviation Administration (FAA) and notify ALUC.</li> <li>Development within the 60 and 65 dBA CNEL noise contour should include policies and mitigation for sensitive development within the noise contour.</li> <li>New heliports<sup>2</sup> are required to be reviewed by ALUC and must comply with Public Utilities Code Section 21661.5. Such projects are required to comply with Section 21676 of the California Public Utilities Code to determine consistency with the AELUP for the Los Alamitos JFTB.</li> </ul> | <p>Chapter 3, Project Description</p> <p>Section 5.5, <i>Hazards and Hazardous Materials</i></p> <p>Section 5.6, <i>Land Use and Planning</i></p> <p>Section 5.7, <i>Noise</i></p> |
| Los Alamitos Unified School District (LAUSD)     | Public Services                         | <ul style="list-style-type: none"> <li>Potential impacts to LAUSD school facilities and estimated increase in students associated with the General Plan Update.</li> <li>Potential impacts from rezoning sites to potential incompatible land uses proximate to existing LAUSD facilities.<sup>3</sup></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Section 5.9, <i>Public Services</i></p> <p>Chapter 3, Project Description</p> <p>Section 5.6, <i>Land Use and Planning</i></p>                                                  |
| Orange County Transportation Authority (OCTA)    | Traffic                                 | <ul style="list-style-type: none"> <li>Coordination with OCTA if modification to the Master Plan of Arterial Highways (MPAH) are proposed.</li> <li>Analysis of traffic impacts to congestion management plan (CMP) intersections based on the latest CMP guidelines.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Section 5.11, <i>Transportation and Traffic</i>                                                                                                                                    |
| County of Los Angeles Fire Department            | Public Services                         | <ul style="list-style-type: none"> <li>Notification that the City of Los Alamitos is within OCFA's jurisdiction and therefore no impact on the County of Los Angeles's Fire Department would occur.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Section 5.9, <i>Public Services</i>                                                                                                                                                |
| Manatt, Phelps, and Phillips, LLP                | Notification                            | <ul style="list-style-type: none"> <li>Request to be placed on the notification list regarding the General Plan Update and associated EIR.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Not Applicable.                                                                                                                                                                    |

1 The Housing Element Update and associated Negative Declaration is not a part of the proposed project.

2 Heliports are not proposed as part of the General Plan Update.

3 No changes to zoning next to school sites are proposed.



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### 1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-4, *Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation*, summarizes the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant and for all significant impacts mitigation measures are identified. The level of significance after imposition of the mitigation measures is also presented.

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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                                                                                        | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Level of Significance After Mitigation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>5.1 AESTHETICS</b>                                                                                                                                                                                                                                                       |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |
| Impact 5.1-1: Buildout in accordance with the proposed General Plan land use plan would alter the visual appearance of the plan area, but would not substantially degrade its existing visual character or quality.                                                         | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Less Than Significant                  |
| <b>5.2 AIR QUALITY</b>                                                                                                                                                                                                                                                      |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |
| Impact 5.2-1: Buildout of the project would generate slightly more growth than the existing General Plan; therefore, the project would be inconsistent with SCAQMD's air quality management plans.                                                                          | Potentially Significant                 | Mitigation measures described under Impacts 5.2 2 and 5.2 3 below would reduce impacts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Significant and Unavoidable            |
| Impact 5.2-2: Construction activities associated with the project would generate a substantial increase in short-term criteria air pollutant emissions that exceed the threshold criteria and would cumulatively contribute to the nonattainment designations of the SoCAB. | Potentially Significant                 | 2 1<br>If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the South Coast Air Quality Management District (SCAQMD) adopted thresholds of significance, the City of Los Alamitos shall require that applicants for new development projects incorporate mitigation measures as identified in the CEQA document prepared for the project to reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include but are not limited to: <ul style="list-style-type: none"> <li>• Using construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.</li> <li>• Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.</li> <li>• Limiting nonessential idling of construction equipment to no more than five consecutive minutes.</li> <li>• Water all active construction areas at least three times daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent</li> </ul> | Significant and Unavoidable            |

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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                                                            | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                                                                                                                                                                                                                                                 |                                         | <p>airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.</p> <ul style="list-style-type: none"> <li>• Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).</li> <li>• Pave, apply water three times daily or as often as necessary to control dust, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust.</li> <li>• Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the project site, or as often as needed, to keep streets free of visible soil material.</li> <li>• Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.</li> <li>• Enclose, cover, water three times daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).</li> </ul> |                                        |
| Impact 5.2-3: Long-term operation of the project would generate a substantial increase in criteria air pollutant emissions that exceed the threshold criteria and would cumulatively contribute to the nonattainment designations of the SoCAB. | Potentially Significant                 | No mitigation measures are available that would reduce operational impacts below SCAQMD's thresholds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Significant and Unavoidable            |
| Impact 5.2-4: Buildout of the project could result in new source sources of criteria air pollutant emissions and/or toxic air contaminants proximate to existing or planned sensitive receptors.                                                | Potentially Significant                 | 2 2 New industrial or warehousing land uses that: 1) have the potential to generate 40 or more diesel trucks per day and 2) are located within 1,000 feet of a sensitive land use (e.g. residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Los Alamitos prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Significant and Unavoidable            |

## 1. Executive Summary

Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                  | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                                                                                                                                                                                                       |                                         | Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E 06), particulate matter concentrations would exceed 2.5 µg/m3, or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| Impact 5.2-5: Placement of new sensitive receptors near major sources of toxic air contaminants in the City of Los Alamitos and Rossmore could expose people to substantial pollutant concentrations. | Potentially Significant                 | <p>2 3</p> <p>Applicants for sensitive land uses within the following distances as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, from these facilities:</p> <ul style="list-style-type: none"> <li>• Industrial facilities within 1000 feet</li> <li>• Distribution centers (40 or more trucks per day) within 1,000 feet</li> <li>• Major transportation projects (50,000 or more vehicles per day) within 1,000 feet</li> <li>• Dry cleaners using perchloroethylene within 500 feet</li> <li>• Gasoline dispensing facilities within 300 feet</li> </ul> <p>Applicants shall submit a health risk assessment (HRA) to the City of Los Alamitos prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the applicable Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 6 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E 06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard</p> | Less Than Significant                  |

## 1. Executive Summary

Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                             | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Level of Significance After Mitigation |
|--------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                                                                                                  |                                         | <p>index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• Air intakes located away from high volume roadways and/or truck loading zones, unless it can be demonstrated to the City of Los Alamitos that there are operational limitations.</li> <li>• Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters.</li> <li>• Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the City and shall be verified by the City of Los Alamitos.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| Impact 5.2-6: Industrial land uses associated with the project could create objectionable odors. | Potentially Significant                 | <p>2 4</p> <p>If it is determined during project-level environmental review that a project has the potential to emit nuisance odors beyond the property line, an odor management plan may be required, subject to City's regulations. Facilities that have the potential to generate nuisance odors include but are not limited to:</p> <p>Wastewater treatment plants</p> <ul style="list-style-type: none"> <li>• Composting, greenwaste, or recycling facilities</li> <li>• Fiberglass manufacturing facilities</li> <li>• Painting/coating operations</li> <li>• Large-capacity coffee roasters</li> <li>• Food-processing facilities</li> </ul> <p>If an odor management plan is determined to be required through CEQA review, the City of Los Alamitos shall require the project applicant to submit the plan prior to approval to ensure compliance with the applicable Air Quality Management District's Rule 402, for nuisance odors. If applicable, the Odor Management Plan shall identify the Best Available Control Technologies for Toxics (T BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T BACTs may include, but are not limited to, scrubbers (e.g., air pollution control devices) at the industrial facility. T BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.</p> | Less Than Significant                  |

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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                              | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Level of Significance After Mitigation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>5.3 CULTURAL RESOURCES</b>                                                                                                                                                     |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                        |
| Impact 5.3-1: Future development in the City that would be accommodated by the General Plan Update could impact historic resources.                                               | Potentially Significant                 | 3-1 Applicants for future development projects with intact extant building(s) more than 45 years old shall provide a historic resource technical study to the City of Los Alamitos. The historic resources technical study shall be prepared by a qualified architectural historian meeting Secretary of the Interior Standards. The study shall evaluate the significance and data potential of the resource in accordance with these standards. If the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4852), mitigation shall be identified within the technical study that ensures the value of the historic resource is maintained.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Less Than Significant                  |
| Impact 5.3-2: Future development in the City that would be accommodated by the General Plan Update could impact known and unknown archeological and/or paleontological resources. | Potentially Significant                 | 3-2 Applicants for future development projects that require grading of undisturbed soil in areas of known or inferred archaeological resources, prehistoric or historic, shall provide a technical cultural resources assessment to the City of Los Alamitos prior to the issuance of grading permits. The cultural resources assessment shall be prepared by a qualified archaeologist to assess the cultural and historical significance of any known archaeological resources on or next to each respective development site, and assessing the sensitivity of sites for buried archaeological resources. On properties where resources are identified, or that are determined to be moderately to highly sensitive for buried archaeological resources, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:<br><ul style="list-style-type: none"> <li>a. An archaeologist shall be retained for the development project and shall be on call during grading and other significant ground-disturbing activities.</li> <li>b. Should any cultural/scientific resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources.</li> <li>c. Unanticipated discoveries shall be evaluated for significance by an</li> </ul> | Less Than Significant                  |



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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Level of Significance After Mitigation |
|----------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                      |                                         | <p>Orange County Certified Professional Archaeologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University, Fullerton; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable).</p> <p>3-3 Applicants for future development projects that require excavation greater than five feet below the current ground surface in undisturbed sediments with a moderate or higher fossil yield potential shall provide a technical paleontological assessment prepared by a qualified paleontologist assessing the sensitivity of sites for buried paleontological resources to the City of Los Alamitos prior to issuance of grading permits. If resources are known or reasonably anticipated, the assessment shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified paleontologist. The mitigation plan shall include the following requirements:</p> <ol style="list-style-type: none"> <li>A paleontologist shall be retained for the project and shall be on call during grading and other significant ground-disturbing activities.</li> <li>Should any potentially significant fossil resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources.</li> <li>Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University, Fullerton; and provide a comprehensive final report, including catalog with museum numbers.</li> </ol> |                                        |

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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                                                                                                                           | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Level of Significance After Mitigation |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>5.4 GREENHOUSE GAS EMISSIONS</b>                                                                                                                                                                                                                                                                            |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |
| Impact 5.4-1: Buildout of the City of Los Alamitos pursuant to the project would generate a decrease in GHG emissions compared to existing conditions as a result of federal and state GHG emissions regulations and would not generate GHG emissions that would have a significant impact on the environment. | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Less Than Significant                  |
| Impact 5.4-2: Federal, state, and local GHG reduction plans are necessary to achieve the long-term GHG reduction targets of Executive Order S-03-05.                                                                                                                                                           | Potentially Significant                 | <p>4 1 The City of Los Alamitos shall include the following actions in the City's Implementation Plan to ensure that the City continues on a trajectory that aligns with the long-term State GHG reduction goals of Executive Order S 03 05.</p> <ul style="list-style-type: none"> <li>• Work with local and regional agencies to install appropriate recharging stations to support the use of electric vehicles. Work with developers to install recharging stations at appropriate activity and employment centers to support electric vehicle use.</li> <li>• Conduct energy audits on all City facilities and incorporate cost-effective measures to increase energy efficiency.</li> <li>• Public education on energy conservation. Coordinate with local utilities to provide energy conservation information to the public.</li> <li>• Promote energy-efficient design features such as appropriate site orientation, renewable energy systems, use of lighter color roofing and building materials, and passive ventilation and cooling techniques.</li> <li>• Seek grants and other outside funding for energy efficiency improvements to public or private facilities and structures.</li> <li>• Work with the Los Alamitos Unified School District, the City of Seal Beach, and Rossmoor to obtain grant funding, conduct planning, and construct new and improved existing bicycle and pedestrian facilities to provide safe routes to schools.</li> <li>• Remove barriers that discourage active pedestrian and bicycle routes. Expand facilities and amenities that encourage active routes, such as</li> </ul> | Significant and Unavoidable            |

## 1. Executive Summary

Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                                                                                       | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Level of Significance After Mitigation |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
|                                                                                                                                                                                                                                                                            |                                         | <p>increasing the number of Class II bike lanes along potential school routes, particularly those that parallel Los Alamitos Boulevard and Katella Avenue.</p> <ul style="list-style-type: none"> <li>• Create and implement a pedestrian and bicycle master plan to identify improvements, timing, and funding mechanisms.</li> <li>• Identify funding and design options for bicycle and pedestrian signage along bicycle routes, in the downtown, and at key trailheads or connection points, with an emphasis on connections to schools and the downtown. Bicycle signage should be consistent with signs of neighboring jurisdictions, yet distinct for Los Alamitos.</li> <li>• Coordinate with neighboring jurisdictions on improving connections to existing and planning future bicycle and pedestrian trails.</li> <li>• Work with OCTA and local businesses to enhance bus stops in Los Alamitos and Rossmoor.</li> <li>• Coordinate with OCTA on its Long Range Transportation Plan to design bus rapid transit service and stop locations along Katella Avenue</li> <li>• Explore the use of parking meters along public streets and on City-owned lots, especially in the downtown.</li> <li>• Identify opportunities for bicycle parking in the downtown, including the conversion of single parallel parking spaces along smaller side streets into on-street or curb-adjacent bicycle parking. Bike racks should serve as functional public art and can reflect the types of businesses or uses.</li> </ul> |                                        |
| <b>5.5 HAZARDS AND HAZARDOUS MATERIALS</b>                                                                                                                                                                                                                                 |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| Impact 5.5-1: Future construction and/or operational activities accommodated by the General Plan Update would involve the transport, use, and/or disposal of hazardous materials; however, existing federal, state, and local regulations would ensure risk are minimized. | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Less Than Significant                  |

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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                                                  | Level of Significance Before Mitigation | Mitigation Measures                  | Level of Significance After Mitigation |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------|----------------------------------------|
| Impact 5.5-2: The City and Rossmore are included on a list of hazardous materials sites; however, compliance with existing regulations would ensure hazards are remediated to the applicable state and federal standards.             | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| Impact 5.5-3: Buildout of the General Plan Update would place additional development and residents in the vicinity of the Los Alamitos Army Airfield; however, land uses would be compatible with the Airport Environs Land Use Plan. | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <b>5.6 LAND USE AND PLANNING</b>                                                                                                                                                                                                      |                                         |                                      |                                        |
| Impact 5.6-1: Implementation of the General Plan Update would not conflict with applicable plans adopted for the purpose of avoiding or mitigating and environmental effect.                                                          | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <b>5.7 NOISE</b>                                                                                                                                                                                                                      |                                         |                                      |                                        |
| Impact 5.7-1: The General Plan Update would not result in a substantial long-term increase in ambient noise levels generated by vehicle traffic.                                                                                      | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| Impact 5.7-2: The General Plan Update would not expose sensitive receptors to elevated noise levels from traffic and stationary noise.                                                                                                | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |

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Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                    | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Level of Significance After Mitigation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Impact 5.7-3: Construction activities associated with the proposed project could create a substantial short-term increase in groundborne vibration.                                     | Potentially Significant                 | 7 1 Individual projects that involve vibration-intensive construction activities, such as blasting, pile drivers, jack hammers, and vibratory rollers, within 200 feet of sensitive receptors shall be evaluated for potential vibration impacts. A study shall be conducted for individual projects where vibration-intensive impacts may occur. If construction-related vibration is determined to be perceptible at vibration-sensitive uses, additional requirements, such as use of less-vibration-intensive equipment or construction techniques, shall be implemented during construction (e.g., nonexplosive blasting methods, drilled piles as opposed to pile driving, etc.).                                                                                                                                                                                                                                                                                                                                                                                                                                               | Significant and Unavoidable            |
| Impact 5.7-4: Construction activities associated with the proposed project could create a substantial short-term increase in noise levels in the vicinity of noise-sensitive land uses. | Potentially Significant                 | 7 2 Applicants for new development projects within 500 feet of sensitive receptors shall implement the following best management practices to reduce construction noise levels: <ul style="list-style-type: none"> <li>• Require that construction vehicles and equipment (fixed or mobile) be equipped with properly operating and maintained mufflers.</li> <li>• Restrict haul routes and construction-related traffic</li> <li>• Place stock piling and/or vehicle-staging areas as far as practical from residential homes.</li> <li>• Replace backup audible warning devices with backup strobe lights or other warning devices during evening construction activity to the extent permitted by the California Division of Occupational Safety and Health.</li> <li>• Reduce nonessential idling of construction equipment to no more than five minutes</li> <li>• Consider the installation of temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures, depending on length of construction, type of equipment used, and proximity to noise-sensitive uses.</li> </ul> | Significant and Unavoidable            |
| Impact 5.7-5: Implementation of the General Plan Update would not result in increased noise exposure from operation of the Los Alamitos JFTB.                                           | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Less Than Significant                  |

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**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Environmental Impact                                                                                                                                                                                                                                                                                                                                                                                                            | Level of Significance Before Mitigation | Mitigation Measures                  | Level of Significance After Mitigation |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------|----------------------------------------|
| <b>5.8 POPULATION AND HOUSING</b>                                                                                                                                                                                                                                                                                                                                                                                               |                                         |                                      |                                        |
| <b>Impact 5.8-1:</b> The proposed project would result in an increase of 1,385 people and 3,770 employees in the City of Los Alamitos and Rossmore; however, the General Plan Update accommodates future growth in the City by providing for infrastructure and public services to accommodate this projected growth.                                                                                                           | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <b>5.9 PUBLIC SERVICES</b>                                                                                                                                                                                                                                                                                                                                                                                                      |                                         |                                      |                                        |
| <b>FIRE PROTECTION AND EMERGENCY SERVICES</b>                                                                                                                                                                                                                                                                                                                                                                                   |                                         |                                      |                                        |
| <b>Impact 5.9-1:</b> The proposed project would introduce new structures and residents into the Orange County Fire Authority service boundaries, thereby increasing the requirement for fire protection facilities and personnel. However, sufficient revenue would be available for necessary service improvements to provide for adequate fire protection (staffing and facilities) upon buildout of the General Plan Update. | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <b>POLICE PROTECTION</b>                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |                                      |                                        |
| <b>Impact 5.9-2:</b> The proposed project would introduce new structures, residents, and workers into the Los Alamitos Police Department's service boundaries, thereby increasing the requirement for police protection facilities and personnel. However, sufficient revenue would be available for necessary service improvements to provide for adequate                                                                     | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |

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**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Environmental Impact                                                                                                                                                                                                                                                    | Level of Significance Before Mitigation | Mitigation Measures                  | Level of Significance After Mitigation |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------|----------------------------------------|
| police protection (staffing and facilities) upon buildout of the General Plan Update.                                                                                                                                                                                   |                                         |                                      |                                        |
| <i>SCHOOL SERVICES</i>                                                                                                                                                                                                                                                  |                                         |                                      |                                        |
| Impact 5.9-3: The proposed project would generate approximately 373 new students who would impact the school enrollment capacities of area schools; however, payment of SB 50 development impact fees would provide funding for the financing of new school facilities. | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <i>LIBRARY SERVICES</i>                                                                                                                                                                                                                                                 |                                         |                                      |                                        |
| Impact 5.9-4: The proposed project would generate additional demand for library services as a result of an increase in population in the City and Rossmoor, but would not significantly impact the service needs for the local libraries.                               | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <b>5.10 RECREATION</b>                                                                                                                                                                                                                                                  |                                         |                                      |                                        |
| Impact 5.10-1: The proposed project would generate demand for 61.86 acres of parkland under the City's current parkland standard; but future demand for parks would be met by existing park facilities under the City's parkland standard.                              | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| Impact 5.10-2: Buildout of the General Plan Update would require the construction or expansion of recreational facilities but no significant adverse physical effect on the environment would occur.                                                                    | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |



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**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Environmental Impact                                                                                                                                                                                                                          | Level of Significance Before Mitigation | Mitigation Measures                                                                                                                                                                                  | Level of Significance After Mitigation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>5.11 TRANSPORTATION/TRAFFIC</b>                                                                                                                                                                                                            |                                         |                                                                                                                                                                                                      |                                        |
| <b>Impact 5.11-1:</b> Buildout of the City of Los Alamitos plus cumulative growth in the region would generate an increase in traffic volumes that would impact levels of service at local area intersections and roadway segments.           | Potentially Significant                 | Given the policy desires of the City and constraints at the intersections and segments, additional improvements are considered infeasible, and improvements identified were considered but rejected. | Significant and Unavoidable            |
| <b>Impact 5.11-2:</b> Project-related trip generation in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding the congestion management agency service standards.      | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                 | Less Than Significant                  |
| <b>Impact 5.11-3:</b> The General Plan Update includes policies, plans, and programs for alternative transportation.                                                                                                                          | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                 | Less Than Significant                  |
| <b>5.12 UTILITIES AND SERVICE SYSTEMS</b>                                                                                                                                                                                                     |                                         |                                                                                                                                                                                                      |                                        |
| <b>WASTEWATER TREATMENT AND COLLECTION</b>                                                                                                                                                                                                    |                                         |                                                                                                                                                                                                      |                                        |
| <b>Impact 5.11-1:</b> Buildout of the General Plan Update would generate an increase in wastewater but additional generation could be adequately treated by the Orange County Sanitation District's existing wastewater treatment facilities. | Less Than Significant                   | No mitigation measures are required.                                                                                                                                                                 | Less Than Significant                  |

## 1. Executive Summary

**Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Environmental Impact                                                                                                                                                                                                                                                           | Level of Significance Before Mitigation | Mitigation Measures                  | Level of Significance After Mitigation |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------|----------------------------------------|
| <i><b>WATER SUPPLY AND DISTRIBUTION SYSTEMS</b></i>                                                                                                                                                                                                                            |                                         |                                      |                                        |
| Impact 5.11-2: The General Plan Update would increase water demand by 192,262 gallons per day; however, the Golden State Water Company's water supply and delivery systems are adequate to meet the water demands of project in addition to its other service obligations.     | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <i><b>STORM DRAINAGE SYSTEMS</b></i>                                                                                                                                                                                                                                           |                                         |                                      |                                        |
| Impact 5.11-3: New development under the General Plan Update would be required to ensure that the storm drainage systems would retain any increase in stormwater flow onsite and would be adequate to serve the drainage requirements of the proposed project.                 | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |
| <i><b>SOLID WASTE</b></i>                                                                                                                                                                                                                                                      |                                         |                                      |                                        |
| Impact 5.11-4: The General Plan Update would result in an increase in 3,723 tons per year of solid waste disposal; however, solid waste haulers and landfills would be able to accommodate project-generated solid waste while complying with related solid waste regulations. | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |

## 1. Executive Summary

Table 1-4 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

| Environmental Impact                                                                                                                                                                                                               | Level of Significance Before Mitigation | Mitigation Measures                  | Level of Significance After Mitigation |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------|----------------------------------------|
| <i>OTHER UTILITIES</i>                                                                                                                                                                                                             |                                         |                                      |                                        |
| Impact 5.11-5: The General Plan Update would result in an increase in natural gas use and electricity use; however, additional demand would be accommodated by Southern California Edison and the Southern California Gas Company. | Less Than Significant                   | No mitigation measures are required. | Less Than Significant                  |

## 1. Executive Summary

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## 2. Introduction

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### 2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This Draft Environmental Impact Report (DEIR) has been prepared to satisfy CEQA, as set forth in Public Resources Code Section 21000, et seq., and the State CEQA Guidelines, 14 California Code of Regulations, Section 15000, et seq. The EIR is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present and reasonably foreseeable future projects.

Pursuant to CEQA Section 21067, the lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.” The City of Los Alamitos has the principal responsibility for approval of the Los Alamitos General Plan Update. For this reason, the City of Los Alamitos is the CEQA lead agency for this project.

The intent of the DEIR is to provide sufficient information on the potential environmental impacts of the proposed Los Alamitos General Plan Update to allow the City of Los Alamitos to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City are described later in Section 3.4, *Intended Uses of the EIR*.

This DEIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code Section 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (herein referenced as CEQA Guidelines), as amended (California Code of Regulations Sections 15000 et seq.)

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision makers and the general public of the environmental effects of the development and operation of the proposed Los Alamitos General Plan Update project. This DEIR addresses the potential environmental effects of the project, including effects that may be significant and adverse, evaluates a number of alternatives to the project, and identifies mitigation measures to reduce or avoid adverse effects.

## 2. Introduction

### 2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City of Los Alamitos determined that an EIR would be required for this project and issued a Notice of Preparation and Initial Study on December 18, 2013 (see Appendix A). Comments received during the public review period, which extended from December 18, 2013, to January 17, 2014, are in Appendix B.

The NOP process is used to help determine the scope of the environmental issues to be addressed in the DEIR. Based on this process and the Initial Study for the project, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant are addressed in this DEIR. Issues identified as Less Than Significant or No Impact are not addressed beyond the discussion, in the Initial Study. Refer to the Initial Study in Appendix A for discussion of how these initial determinations were made.

### 2.3 SCOPE OF THIS DEIR

Based upon the Initial Study and Environmental Checklist Form, the City of Los Alamitos staff determined that a DEIR should be prepared for the proposed project. The scope of the DEIR was determined based on the City's Initial Study, comments received in response to the NOP, and comments received at the scoping meeting conducted by the City. Pursuant to Sections 15126.2 and 15126.4 of the State CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance.

The information in the project description establishes the basis for analyzing future project-related environmental impacts. However, further environmental review by the City may be required as more detailed information and plans are submitted on a project-by-project basis.

#### 2.3.1 Impacts Considered Less Than Significant in the Initial Study

Five environmental impact categories were identified as not being significantly affected by, or affecting the proposed Los Alamitos General Plan Update project, and as such, are not discussed in detail in this DEIR. This determination was made by the City of Los Alamitos in its preparation of the Initial Study. The following topical issues are not addressed in the DEIR:

- Agriculture and Forestry Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Mineral Resources

#### 2.3.2 Potentially Significant Adverse Impacts in the Initial Study

Twelve environmental factors were identified as having potentially significant impacts in the Initial Study. These factors are and are discussed further in this DEIR:

## 2. Introduction

- Aesthetics
- Air Quality
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Land Use
- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic and Transportation
- Utilities and Service Systems

### 2.4 SIGNIFICANT UNAVOIDABLE IMPACTS IDENTIFIED IN THE DEIR

This DEIR identifies eight significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. If the City, as the lead agency, determines that unavoidable significant adverse impacts will result from the project, the City must prepare a “Statement of Overriding Considerations” before it can approve the project. A Statement of Overriding Considerations states that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits of the project outweigh the adverse effects and, therefore, the adverse effects are considered acceptable. The impacts that were found in the DEIR to be significant and unavoidable are:

- Air Quality (AQMP consistency, construction and operation air pollutant emissions, localized air quality)
- Greenhouse Gas Emissions (consistency with GHG reduction plans)
- Noise (construction-related noise and vibration)
- Transportation (local segments and intersections)

### 2.5 INCORPORATION BY REFERENCE

The following documents are incorporated by reference in this DEIR, consistent with Section 15150 of the State CEQA Guidelines, and are available for review at the City of Los Alamitos.

- *City of Los Alamitos General Plan*, prepared by the City of Los Alamitos, 1990.
- Final Environmental Impact Report for the City of Los Alamitos General Plan (SCH# 1989091303), prepared by the Castaneda & Associates, October 1989.

## 2. Introduction

This DEIR also relies on previously adopted regional and statewide plans and programs, agency standards, and background studies in its analysis, such as:

- City of Los Alamitos Municipal Code
- Water Quality Control Plan for the Santa Ana River Basin, Water Quality Control Board for Santa Ana Basin (Region 8)
- Urban Water Management Plan, Golden State Water Company
- 2013 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS), Southern California Association of Governments
- 2012 Air Quality Management Plan, South Coast Air Quality Management District
- Scoping Plan, California Air Resources Board, 2008

Whenever existing environmental documentation or previously prepared documents and studies are used in the preparation of this DEIR, the information is summarized for the convenience of the reader and incorporated by reference. In addition, each section that relies on previously adopted plans, programs, environmental documentation, and background studies notes how it specifically relates to the proposed project and that the information has been reconfirmed. These documents and other referenced source material in this DEIR will be made available to the public for inspection upon request, at the City of Los Alamitos, Community Development Department, 3191 Katella Avenue, Los Alamitos, CA 90720.

### 2.6 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for a period of 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown on the title page of this document. Upon completion of the 45-day review period, the City of Los Alamitos will review all written comments received and prepare written responses for each comment. A Final EIR (FEIR) will be prepared incorporating all of the comments received, responses to the comments, and any changes to the DEIR that result from the comments received. This FEIR will be presented to the City of Los Alamitos for potential certification as the environmental document for the project. All persons who commented on the DEIR will be notified of the availability of the FEIR and the date of the public hearing before the City.

The DEIR is available to the general public for review at the following locations:

- City of Los Alamitos, Community Development Department, 3191 Katella Avenue, Los Alamitos, CA 90720
- Los Alamitos/Rossmoor Library, 12700 Montecito Road, Seal Beach, CA 90740



## 2. Introduction

### 2.7 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that agencies adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 21081 or adopted a Negative Declaration pursuant to 21080(c). Pursuant to CEQA Guidelines Section 15097, such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration.

The Mitigation Monitoring Program for the Los Alamitos General Plan Update will be completed as part of the Final EIR and will be completed prior to consideration of the project by the Los Alamitos City Council.

## 2. Introduction

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## 3. Project Description

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### 3.1 PROJECT LOCATION

The City of Los Alamitos is on the northwestern boundary of Orange County, approximately 23 miles (driving distance) south of downtown Los Angeles. As shown in Figure 3-1, *Regional Location*, the City is surrounded by highly urbanized areas of Orange and Los Angeles Counties and abuts or is near the cities of Long Beach, Seal Beach, Hawaiian Gardens, Cypress, and Garden Grove. Interstate 605 (I-605) runs north–south along the City’s western boundary. No other interstate or state route crosses the City’s boundaries. However, I-405 travels northwest to southeast around the City’s southern boundary, and State Route 22 (SR-22) travels east–west approximately 0.4 miles south of the City, providing regional access to Los Alamitos. The City’s sphere of influence (SOI) encompasses the unincorporated community of Rossmoor on the southwest side of the City (see Figure 3-2, *Citywide Aerial*).

The City encompasses approximately 2,619 acres, and its SOI extends to the 982-acre unincorporated community of Rossmoor. Approximately 50 percent of the City’s total land area is occupied by the Los Alamitos Joint Forces Training Base (JFTB), and the remaining area is developed with urban uses. As shown in Figure 3-3, *Existing Land Use*, the urban uses throughout the City include Single Family Residential, Multi-Family Residential, Mobile Home Residential, General Office, Business Park, Medical Office, Commercial, Industrial, Public/Quasi Public Facility, Parks, Water, as well as rights-of-way and easements. Part of the Coyote Creek and Carbon Creek channels, approximately 45 acres, flow through the City and into the San Gabriel River farther south along the City’s western boundary. The City has only three acres of vacant land.

### 3.2 STATEMENT OF OBJECTIVES

The General Plan Update is guided by a set of community values and priorities developed by the Los Alamitos City Council and Commissions with input from the community in Los Alamitos and Rossmoor. The following objectives have been established for the Los Alamitos General Plan Update and will aid decision makers in their review of the project and associated environmental impacts:

- Maintain high levels of safety and service
- Create an attractive and pedestrian-friendly downtown
- Introduce pedestrian bridges
- Maximize retail opportunities along Katella Avenue
- Relocate City Hall
- Offer incentives to preserve and attract business
- Improve the look and identity of the City

### 3. Project Description

- Provide consistent and effective code enforcement
- Maintain a good relationship with the Los Alamitos Unified School District
- Create more open space, parks, trails, community gardens, and recreation areas
- Evaluate annexation carefully
- Establish centralized parking options
- Enhance cultural uses and historical preservation

### 3.3 PROJECT CHARACTERISTICS

“Project,” as defined by the CEQA Guidelines, means “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)...enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700” (14 Cal. Code of Reg. 15378[a]).

#### 3.3.1 Current General Plan

The current Los Alamitos 2010 General Plan was adopted in May 1990, with multiple amendments since then, including a major amendment in 2000. The current general plan has nine elements:

- Land Use
- Conservation
- Safety
- Open Space and Recreation
- Circulation and Transportation
- Noise
- Economic Development
- Housing
- Growth Management

Fifteen land use designations regulate development in the City and its SOI. The largest land area is designated for the JFTB, and the next largest are designated for residential (single- and multifamily) and planned industrial uses, as seen in Figure 3-4, *Current Land Use Plan*. Table 3-1, *Current General Plan Use and Buildout Projections*, outlines the existing land use designations in place within the City. In addition, Table 3-1 details the projected population, employment, dwelling units, and nonresidential square footage of development planned for under the current General Plan if built out under the existing land use designations.

### 3. Project Description

**Table 3-1 Current General Plan Land Use and Buildout Projections**

| Category                         | Acres        | Residential Units | Population    | Nonresidential Square Feet | Employment    |
|----------------------------------|--------------|-------------------|---------------|----------------------------|---------------|
| <b>Los Alamitos</b>              | <b>2,619</b> | <b>5,439</b>      | <b>14,204</b> | <b>8,562,942</b>           | <b>16,235</b> |
| Community & Institutional        | 150          | —                 | —             | 976,513                    | 658           |
| Community & Institutional/JFTB   | 1,279        | —                 | —             | 1,394,985                  | 675           |
| Easement                         | 4            | —                 | —             | —                          | -             |
| Limited Multi-Family Residential | 18           | 189               | 494           | —                          | -             |
| Multi-Family Residential         | 174          | 3,689             | 9,633         | —                          | -             |
| Open Area                        | 82           | —                 | —             | —                          | -             |
| Planned Industrial               | 206          | —                 | —             | 3,632,341                  | 6,317         |
| Professional Office              | 40           | 12                | 31            | 978,913                    | 3,916         |
| Retail Business                  | 55           | —                 | —             | 997,367                    | 3,325         |
| Single Family Residential        | 258          | 1,549             | 4,046         | —                          | -             |
| Specific Plan                    | 17           | —                 | —             | 582,824                    | 1,345         |
| Suburban Residential             | 0            | —                 | —             | —                          | -             |
| ROW                              | 336          | —                 | —             | —                          | -             |
| <b>Rossmoor</b>                  | <b>982</b>   | <b>3,963</b>      | <b>10,540</b> | <b>426,112</b>             | <b>408</b>    |
| Suburban Residential             | 749          | 3,963             | 10,540        | 426,112                    | 408           |
| ROW                              | 233          | —                 | —             | —                          | -             |
| <b>Grand Total</b>               | <b>3,601</b> | <b>9,402</b>      | <b>24,744</b> | <b>8,989,054</b>           | <b>16,643</b> |

**Assumptions:**

Residential Units: The following density assumptions were used unless adjusted by a specific project or to reflect the current buildout of an existing neighborhood.

- Single Family Residential: 6 units per acre
- Limited Multi-Family Residential: 12 units per acre
- Multi-Family Residential: 22 units per acre
- Suburban Residential: 5.65 units per acre

Population: 2.70 persons per household in the City of Los Alamitos; 2.75 persons per household in Rossmoor.

Nonresidential Square Footage: Projections assumed an increase of approximately 10 percent above existing building square footage.

Employment: The following employment generation factors were used.

- Retail Business: 300 square feet per employee
- Community & Institutional/JFTB: 1,000 square feet per employee
- Professional Office: 250 square feet per employee

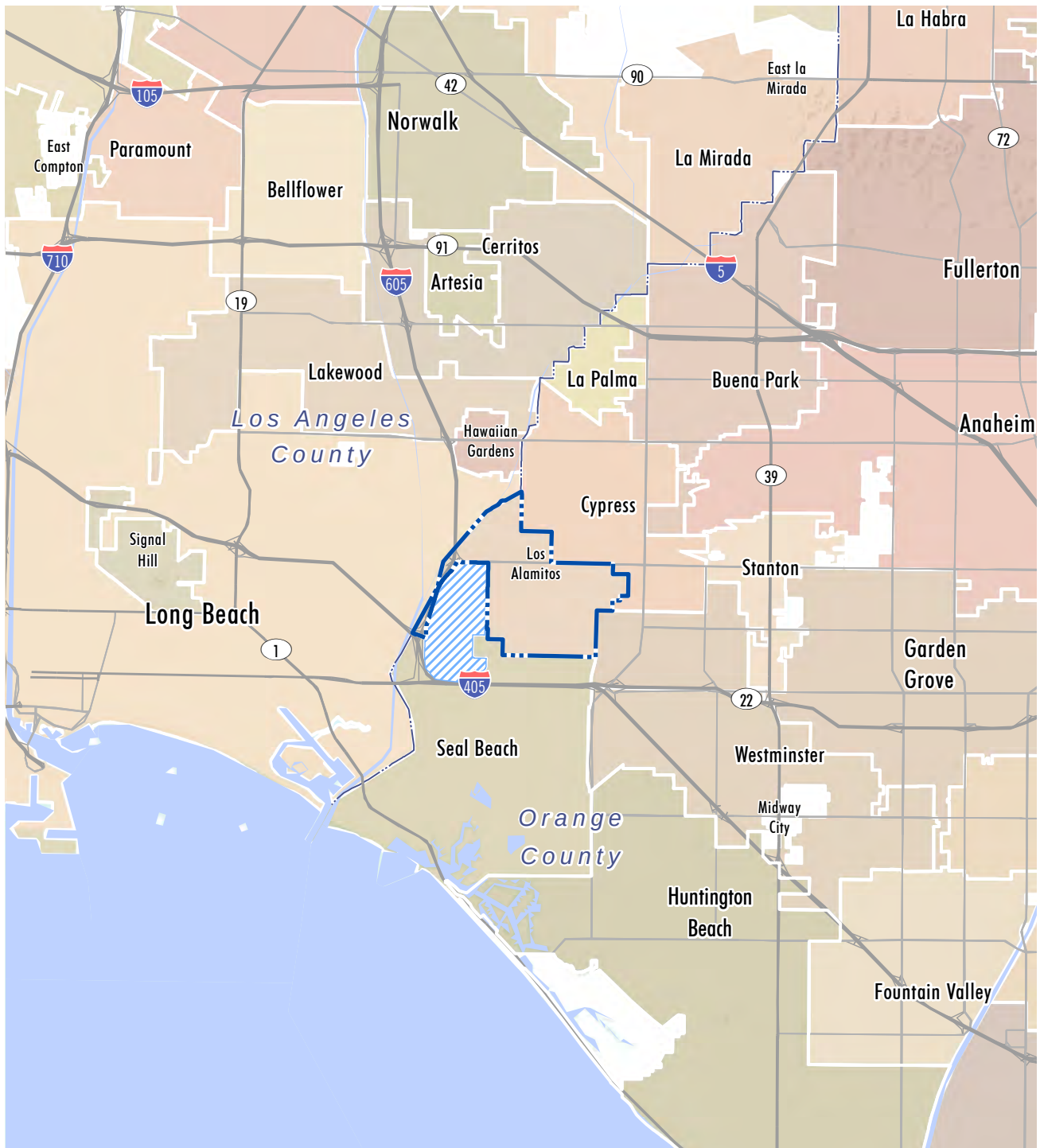
### 3. Project Description

**Table 3-1      Current General Plan Land Use and Buildout Projections**

| Category                                                                                                                                                                                                                                                                                                                                                                          | Acres | Residential Units | Population | Nonresidential Square Feet | Employment |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|------------|----------------------------|------------|
| <ul style="list-style-type: none"><li>▪ Community &amp; Institutional: 1,000 square feet per employee</li><li>▪ Planned Industrial: 575 square feet per employee</li><li>▪ Specific Plan: per assumptions in Los Alamitos Medical Center Specific Plan EIR</li><li>▪ Limited Industrial: 575 square feet per employee</li><li>▪ Mixed Use: 275 square feet per employee</li></ul> |       |                   |            |                            |            |

### 3. Project Description

Figure 3-1 Regional Location



### 3. Project Description

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### 3. Project Description

**Figure 3-2 Citywide Aerial**

-  City Boundary
-  Sphere of Influence
-  Los Alamitos Joint Forces Training Base



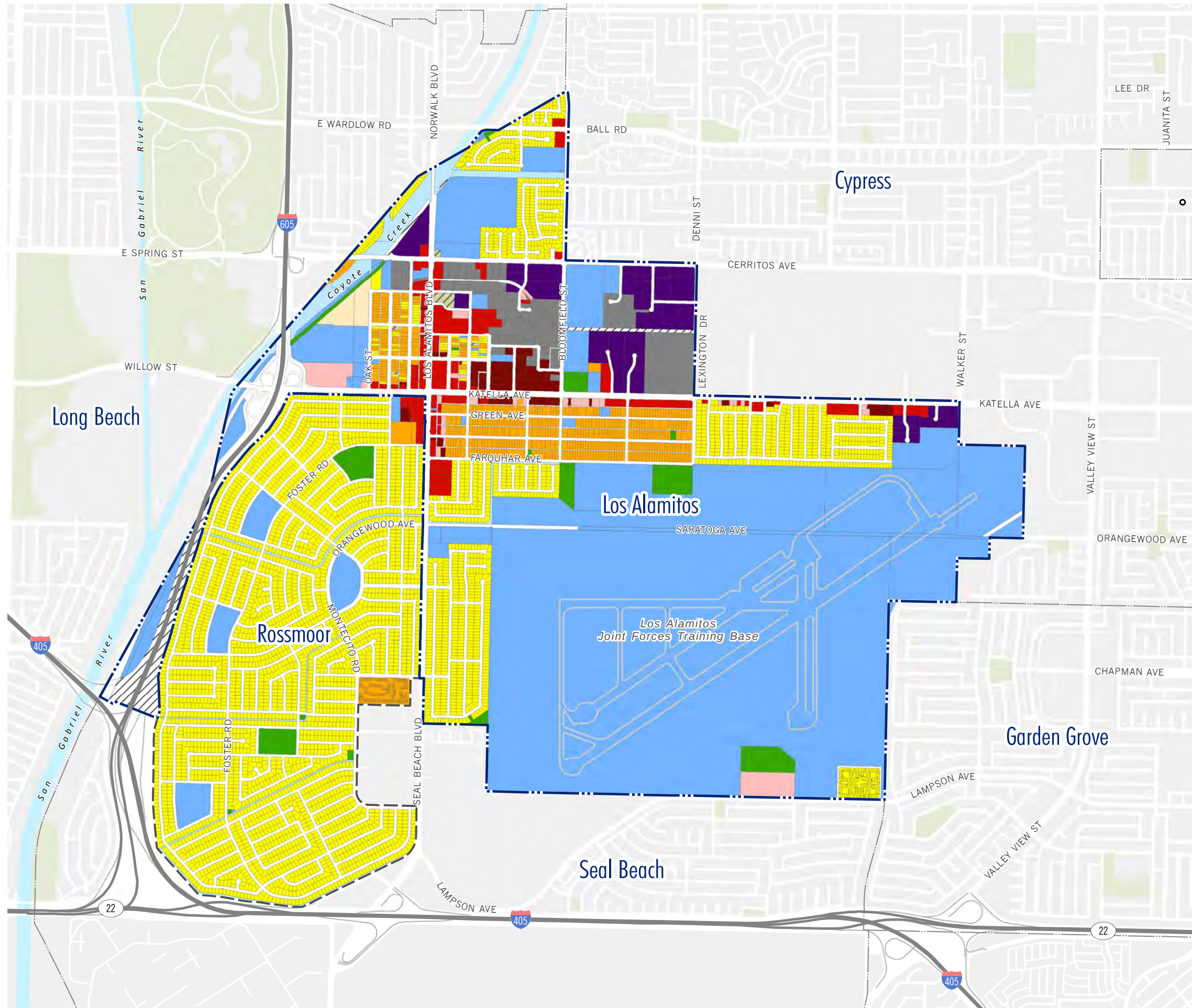


### 3. Project Description

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### 3. Project Description

**Figure 3-3 Existing Land Use**



- Single Family Residential
- Multi-Family Residential
- Mobile Home Residential
- General Office
- Business Park
- Medical Office
- Commercial
- Industrial
- Public/Quasi Public Facility
- Parks
- Water
- Vacant
- Other/Easement
- City Boundary
- Sphere of Influence
- Other City Boundaries

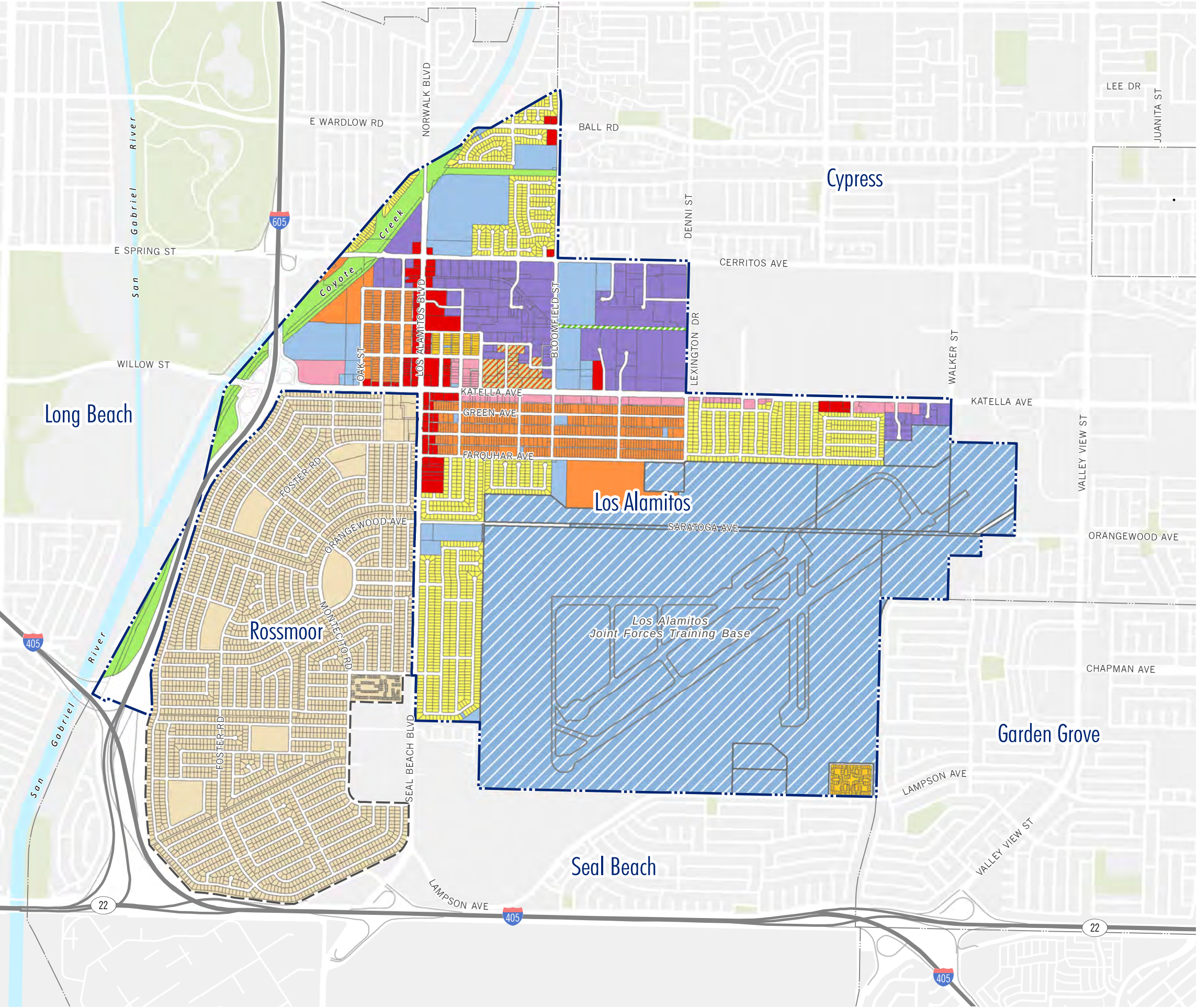
### 3. Project Description

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3. Project Description

Figure 3-4 Current Land Use Plan



Residential

- Single Family Res. 1-6 DU/Ac (R1)
- Limited Multi Family Res. 6-20 DU/Ac (R2)
- Multi Family Res. 20-30 DU/Ac (R3)

Commercial and Employment

- Professional Office (PO)
- Retail Business (RB)
- Planned Industrial (PI)

Special Use

- Specific Plan (SP)
- Community & Institutional/JFTB
- Community & Institutional (C&I)
- Easement (E)
- Open Area (OA)

Rossmoor

- Suburban Residential (1B)
- City Boundary
- Sphere of Influence
- Other City Boundaries

Note:  
Rossmoor is within the City's SOI but it also remains within & under the jurisdiction of the County of Orange. Accordingly, the Land Use Plan shows the County land use designation of Suburban Residential.



### 3. Project Description

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### 3. Project Description

#### 3.3.2 Description of the Project

The proposed project is an update to the City of Los Alamitos General Plan. The Los Alamitos General Plan Update is intended to provide guidance for long term growth, maintenance, and preservation in the City over the next 20-plus years. The General Plan Update also includes Rossmoor as part of the City's SOI to understand future demands for services and implications for growth in Rossmoor and the City. The Los Alamitos General Plan Update addresses the required elements and one optional element as listed below. The proposed General Plan Update identifies the Los Alamitos JFTB as Community & Institutional/JFTB. It should be noted that while the Los Alamitos JFTB is within the City's municipal boundary, the City has no jurisdiction or land use authority on this U.S. military installation.

#### Proposed General Plan Elements

The Los Alamitos General Plan Update involves reorganization of the current General Plan into the following seven elements:

- The **Land Use Element** guides the distribution, location, and extent of land uses for housing, business, industry, institutions, open space, and recreation in the City and its SOI. The element includes goals, policies, and implementation direction and establishes development criteria and standards, including building intensity and residential density.
- The **Economic Development Element** includes long-term goals for the community and policies to guide decision making regarding attracting and preserving skilled employment, leveraging economic resources, spurring continuing and new investment, and maintaining a fiscal balance.
- The **Open Space, Recreation, and Conservation Element** focuses on natural and built recreational resources. It focuses on the preservation of existing open spaces and recreational facilities and the development of new resources. It also emphasizes the conservation of natural, cultural, and historic resources in the community to maximize their value and prevent their exploitation and destruction.
- The **Mobility and Circulation Element** addresses the identification, location, and extent of existing and proposed major thoroughfares, transportation routes, multimodal transportation options, and local public utilities and facilities.
- The **Housing Element** contains the official policies for the construction, rehabilitation, and preservation/conservation of housing in the City of Los Alamitos based on existing and projected needs. The housing element was recently updated for the 2014–2021 planning period and remains a part of the Los Alamitos General Plan, but is not part of this comprehensive General Plan Update.
- The **Public Facilities and Safety Element** provides long-term goals and policies to maintain and improve public services and to ensure future growth is appropriately served by well-planned infrastructure systems. The Element also identifies natural and man-made hazards, including noise, and establishes policies to protect the people and property in the community.

### 3. Project Description

- The **Growth Management Element** is required for Orange County jurisdictions (Measure M) and guides growth and development to be commensurate with the City's ability to provide an adequate circulation system and ensure ongoing compatibility with military operations at the Joint Forces Training Base.

#### Proposed Land Use Designations

The General Plan Update includes the following land use designations, shown in Table 3-2, *Land Use Designations*, which reflect the City's desire to remain a balanced and fiscally sustainable community.

**Table 3-2 Land Use Designations**

| Land Use Designation and Density / Intensity Range                                    | Description of Typical Uses                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CITY OF LOS ALAMITOS</b>                                                           |                                                                                                                                                                                                                                                                                                                          |
| <b>Residential</b>                                                                    |                                                                                                                                                                                                                                                                                                                          |
| Single Family Residential<br>1–6 du/ac                                                | Single family detached homes on individual lots.                                                                                                                                                                                                                                                                         |
| Limited Multiple Family Residential<br>6–20 du/ac<br>Max office space 500 square feet | Single family detached and attached residences, including small lot subdivisions, townhouses, courtyard homes, duplexes, and triplexes. Live/work uses are also permitted, subject to the uses permitted by the Professional Office designation.                                                                         |
| Multiple Family Residential<br>20–30 du/ac                                            | Single family detached and attached residences, including all development permitted in other residential categories as well as stacked flats and other building types with 4 or more units. Other uses such as convalescent hospitals, churches, and mobile home parks are also permitted subject to special procedures. |
| <b>Commercial and Employment</b>                                                      |                                                                                                                                                                                                                                                                                                                          |
| Retail Business<br>Max FAR 1.00                                                       | Commercial retail uses that include supermarkets, drugstores, personal services, restaurants, and facilities that offer a variety of retail products. General services such as auto-related sales and repair, nurseries, plumbing outlets, and home appliance stores are permitted subject to special review procedures. |
| Professional Office<br>Max FAR 1.50                                                   | Professional and general office uses such as law, insurance, medical, dental, engineering, and financial services.                                                                                                                                                                                                       |
| Planned Industrial<br>Max FAR 1.50                                                    | Light industrial, manufacturing, and office park uses such as research and development, manufacturing, boat building, appliance repair and service, plastic fabrication, and printing plants. Commercial recreation uses are not permitted.                                                                              |
| Limited Industrial<br>Max FAR 1.50                                                    | All of the uses permitted in Planned Industrial as well as commercial recreation uses within industrial buildings such as soccer, gymnastics, archery, batting cages, and other indoor health/fitness types of activities.                                                                                               |
| Medical Overlay<br>Max FAR 3.0                                                        | All of the uses permitted in Planned Industrial are permitted, but the City encourages medical uses on the north side of Katella Avenue adjacent to the Los Alamitos Medical Center campus.                                                                                                                              |
| <b>Special Use</b>                                                                    |                                                                                                                                                                                                                                                                                                                          |
| Community & Institutional<br>Max FAR 3.0                                              | Public and quasi-public uses such as the civic center, schools, hospitals, fire stations, parks, churches, utilities, and other similar uses.                                                                                                                                                                            |
| Community & Institutional/JFTB                                                        | The Joint Forces Training Base is an active military installation and airfield that provides support and training facilities for military units and other national, state, and local organizations to include emergency operations. Development and activities on the base are governed by the federal government.       |



## 3. Project Description

Table 3-2 Land Use Designations

| Land Use Designation and Density / Intensity Range | Description of Typical Uses                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mixed Use<br>Max FAR 2.0<br>30 du/ac               | Vertical or horizontal mix of commercial, office, and/or residential uses on the same parcel. Retail is preferred on the ground floor. Office uses and attached single-family and multiple-family housing should be above the ground floor.                                                                                                                                                                                           |
| Specific Plan<br>Max FAR 4.0<br>30 du/ac           | The City may require a specific plan for development with more than 50,000 proposed gross square feet of building, including residential space if a part of a mixed-use project. This requirement does not apply to development in the Joint Forces Training Base or development approved under and consistent with an existing specific plan. No specific plan shall deviate from the general plan without a general plan amendment. |
| Easement Overlay                                   | Applied to right-of-way areas for trails and open space.                                                                                                                                                                                                                                                                                                                                                                              |
| Open Area                                          | Land used for flood control purposes along Coyote Creek and the San Gabriel River. Trails and recreational uses are permitted in coordination with the Orange County Flood Control District.                                                                                                                                                                                                                                          |
| <b>ROSSMOOR / SPHERE OF INFLUENCE (SOI)</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Suburban Residential<br>0.5 –18 du/ac              | Governed by the latest (2011) Orange County General Plan, which provides the following guidance:<br>- Wide range of housing types, from estates on large lots to attached dwelling units (townhomes, condominiums, and clustered arrangements).<br>- Neighborhood/convenience commercial sites are assumed to be consistent, subject to additional guidelines                                                                         |

## Proposed Land Use

Table 3-3, *Proposed General Plan Land Use and Buildout Projections*, outlines the proposed land use and details the projected population, employment, dwelling units, and nonresidential square footage of development planned for under the General Plan Update. The proposed land use designations are also shown on Figure 3-5, *Proposed Land Use Plan*. The theoretical buildout was based largely on the assumption that the majority of the City and Rossmoor would not change. Some incremental intensification was assumed through small projects (e.g., adding a second dwelling unit or expanding a storefront). A handful of parcels were identified as areas where more substantial change could occur. For those parcels, the City created a set of projections and estimated the amount of development that could occur between now and General Plan buildout.

### 3. Project Description

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### 3. Project Description

**Table 3-3 Proposed General Plan Land Use and Buildout Projections**

| Category                                                | Acres        | Residential Units | Population    | Nonresidential Square Feet | Employment    |
|---------------------------------------------------------|--------------|-------------------|---------------|----------------------------|---------------|
| <b>Los Alamitos</b>                                     | <b>2,619</b> | <b>4,772</b>      | <b>12,463</b> | <b>8,455,330</b>           | <b>18,022</b> |
| Community & Institutional                               | 152          | —                 | —             | 928,409                    | 645           |
| Community & Institutional/JFTB                          | 1,318        | —                 | —             | 1,397,993                  | 675           |
| Easement                                                | 4            | —                 | —             | —                          | —             |
| Limited Industrial                                      | 8            | —                 | —             | 106,286                    | 185           |
| Limited Multi-Family Residential                        | 18           | 189               | 494           | —                          | —             |
| Medical Overlay                                         | 13           | —                 | —             | 357,255                    | 1,429         |
| Mixed Use                                               | 19           | 14                | 35            | 626,644                    | 2,279         |
| Multi-Family Residential                                | 145          | 3,017             | 7,880         | —                          | —             |
| Open Area                                               | 82           | —                 | —             | —                          | —             |
| Planned Industrial                                      | 141          | —                 | —             | 2,794,587                  | 4,860         |
| Professional Office                                     | 22           | 3                 | 8             | 543,573                    | 2,174         |
| Retail Business <sup>1</sup>                            | 86           | —                 | —             | 1,117,758                  | 4,431         |
| Single Family Residential                               | 258          | 1,549             | 4,046         | —                          | —             |
| Specific Plan                                           | 17           | —                 | —             | 582,824                    | 1,345         |
| Suburban Residential                                    | 0            | —                 | —             | —                          | —             |
| ROW                                                     | 336          | —                 | —             | —                          | —             |
| <b>Rossmoor</b>                                         | <b>982</b>   | <b>3,963</b>      | <b>10,540</b> | <b>426,112</b>             | <b>408</b>    |
| Suburban Residential                                    | 749          | 3,963             | 10,540        | 426,112                    | 408           |
| ROW                                                     | 233          | —                 | —             | —                          | —             |
| <b>Grand Total</b>                                      | <b>3,601</b> | <b>8,735</b>      | <b>23,003</b> | <b>8,881,442</b>           | <b>18,430</b> |
| Increase from Existing Conditions (Table 4-1)           | 0            | 532               | 1,385         | 903,465                    | 3,770         |
| Change Compared to the Current General Plan (Table 3-1) | 0            | -667              | -1,741        | -107,612                   | 1,787         |

### 3. Project Description

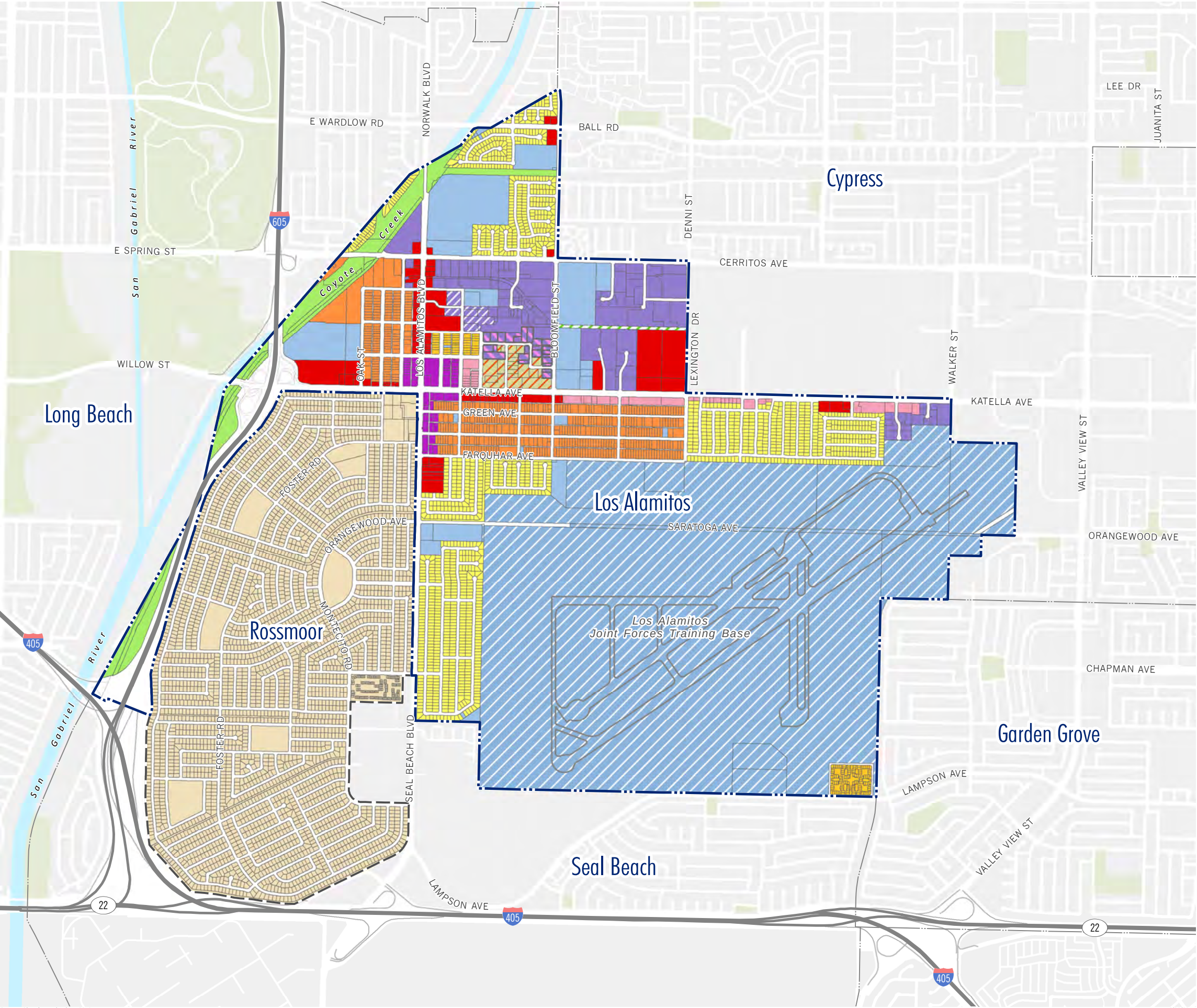
**Table 3-3 Proposed General Plan Land Use and Buildout Projections**

| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Acres | Residential Units | Population | Nonresidential Square Feet | Employment |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|------------|----------------------------|------------|
| <p>Assumptions:</p> <p>Residential Units: The following density assumptions were used unless adjusted by a specific project or to reflect the current buildout of an existing neighborhood.</p> <ul style="list-style-type: none"> <li>Single Family Residential: 6 units per acre</li> <li>Limited Multi Family Residential: 12 units per acre</li> <li>Multi Family Residential: 22 units per acre</li> <li>Suburban Residential: 5.65 units per acre</li> </ul> <p>Mixed Use: applied on a parcel-by-parcel basis; when residential assumed, the residential density was projected at 22 units per acre</p> <p>Population: 2.70 persons per household in the City of Los Alamitos; 2.75 persons per household in Rossmoor.</p> <p>Nonresidential Square Footage: Projections assumed an increase of approximately 10 percent above existing building square footage.</p> <p>Employment: The following employment generation factors were used.</p> <ul style="list-style-type: none"> <li>Retail Business: 300 square feet per employee</li> <li>Planned Industrial: 575 square feet per employee</li> <li>Community &amp; Institutional/JFTB: 1,000 square feet per employee</li> <li>Mixed Use: 275 square feet per employee</li> <li>Professional Office: 250 square feet per employee</li> <li>Limited Industrial: 575 square feet per employee</li> <li>Community &amp; Institutional: 1,000 square feet per employee</li> <li>Medical Overlay: 250 square feet per employee</li> <li>Specific Plan: per assumptions in Los Alamitos Medical Center Specific Plan EIR</li> </ul> |       |                   |            |                            |            |



3. Project Description

Figure 3-5 Proposed Land Use Plan



Residential

- Single Family Res. 1-6 DU/Ac
- Limited Multi Family Res. 6-20 DU/Ac
- Multi Family Res. 20-30 DU/Ac

Commercial and Employment

- Retail Business
- Professional Office
- Planned Industrial
- Limited Industrial
- Medical Overlay

Special Use

- Mixed Use
- Specific Plan
- Community & Institutional
- Community & Institutional/JFTB
- Open Area
- Easement Overlay

Rossmoor

- Suburban Residential
- City Boundary
- Sphere of Influence
- Other City Boundaries

Note:  
Rossmoor is within the City's SOI but it also remains within & under the jurisdiction of the County of Orange. Accordingly, the Land Use Plan shows the County land use designation of Suburban Residential.

 **LOS ALAMITOS**  
**GENERAL PLAN**  
Draft Environmental Impact Report



### 3. Project Description

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### 3. Project Description

#### *Los Alamitos Joint Forces Training Base*

No changes are proposed to the land use designations of the Los Alamitos JFTB. The General Plan Update identifies the JFTB as Community & Institutional/JFTB. The City has no jurisdiction or land use authority on this U.S. military installation. Consequently, no changes from existing conditions are assumed within the JFTB as part of the City's General Plan Update.

#### General Plan Buildout

Buildout projections shown in Table 3-3 are used throughout this DEIR to estimate the magnitude of development that would likely occur in Los Alamitos upon implementation of the General Plan Update compared to existing conditions (see also Chapter 4, *Environmental Setting*). Land use calculations are used to estimate the number of dwelling units, residents, square feet of nonresidential uses, and employees that would be generated by proposed land uses. These projections are then used to estimate how much noise, traffic, and other impacts would occur due to these changes. Though buildout projections do not foretell exactly how the built environment in Los Alamitos will change over time, they allow the potential environmental effects of General Plan buildout to be analyzed. As shown in Table 3-3, *Proposed General Plan Land Use and Buildout Projections*, the General Plan Update would result in a potential buildout total of 8,735 residential units, 23,003 people, 8,881,442 square feet of nonresidential development, and 18,430 jobs in the City and unincorporated community of Rossmoor. Compared to existing conditions, the General Plan Update would result in an increase in 532 residential units, 1,385 people, 903,465 square feet of non-residential development, and 3,770 employees in the City and SOI at buildout.

### 3.4 GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS

Policies that govern the decisions of the City of Los Alamitos included in the General Plan Update are shown below in Table 3-4, *Proposed City of Los Alamitos General Plan Policies*.

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number                  | Policy                                                                                                                                                                                                                                               |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LAND USE ELEMENT</b> |                                                                                                                                                                                                                                                      |
| Policy 1.1              | Town Center. Promote the development of a unique town center around Los Alamitos Boulevard, with spaces designed for community celebrations and events.                                                                                              |
| Policy 1.2              | Public investments. Invest in public improvements to transform Los Alamitos Boulevard into an attractive and pedestrian-friendly street.                                                                                                             |
| Policy 1.3              | Diverse businesses and activities. Attract and retain a variety of shopping, dining, and entertainment options for residents and visitors in the town center. Encourage the creation of daytime, nighttime, and weekend activity in the town center. |
| Policy 1.4              | Vertical mixed-use. Encourage development that provides retail on the ground floor and office, hotel, or residential uses on upper floors in the town center along Los Alamitos Boulevard.                                                           |
| Policy 1.5              | Outdoor dining. Encourage existing and new restaurants to incorporate outdoor dining along Los Alamitos Boulevard.                                                                                                                                   |
| Policy 1.6              | Public art. Encourage the incorporation of art in public and private spaces that celebrates the community's history and imagines a greater future.                                                                                                   |



### 3. Project Description

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number     | Policy                                                                                                                                                                                                                                                                                                                                                                             |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 2.1 | Fiscal impacts. Require that new development be fiscally neutral or positive and can be adequately served by public facilities without negatively impacting service to existing businesses and neighborhoods.                                                                                                                                                                      |
| Policy 2.2 | Mix of land uses. Maintain a balanced mix of residential, retail, employment, industrial, open space, and public facility land uses.                                                                                                                                                                                                                                               |
| Policy 2.3 | Maximize retail along Katella. Maximize community- and regional-scale retail opportunities along Katella Avenue. For parcels 10 acres or larger along Katella Avenue, support the conversion to community- and regional-scale retail.                                                                                                                                              |
| Policy 2.4 | Town center uses. Maximize shopping, dining, arts, and entertainment uses in the town center.                                                                                                                                                                                                                                                                                      |
| Policy 2.5 | Skilled jobs. Attract and retain businesses that provide highly skilled and well-paid jobs.                                                                                                                                                                                                                                                                                        |
| Policy 2.6 | Medical uses. Leverage the medical center as a key anchor, concentrating medical uses around the campus and encouraging complementary uses                                                                                                                                                                                                                                         |
| Policy 2.7 | Quality of life uses. Maintain, improve, and expand uses that define and enhance the City's quality of life, including parks, trails, open spaces, and public facilities.                                                                                                                                                                                                          |
| Policy 2.8 | Annexation. Support annexations that will have a positive fiscal impact on the City.                                                                                                                                                                                                                                                                                               |
| Policy 3.1 | Compatibility. Require that new nonresidential development is located, scaled, and designed to be compatible with existing adjacent neighborhoods and uses.                                                                                                                                                                                                                        |
| Policy 3.2 | Economic viability. Preserve the economic viability and continuity of existing commercial and industrial businesses.                                                                                                                                                                                                                                                               |
| Policy 4.1 | Pride and identity. Enhance the sense of identity and increase the feeling of pride among Los Alamitos residents, business owners, employees, and visitors through excellent physical design and continual property maintenance and improvements.                                                                                                                                  |
| Policy 4.2 | Corridor design. Buildings and related improvements along the City's arterial streets should exhibit authentic and enduring design. Although no specific architectural style is required, the City prefers that designs for individual buildings stay true to a single architectural style and discourage franchise architecture.                                                  |
| Policy 4.3 | Multifamily neighborhoods. Promote coordinated property maintenance and improvement in the Old Town West, Old Town East, and Apartment Row neighborhoods.                                                                                                                                                                                                                          |
| Policy 4.4 | Mansionization. Ensure that all new development in residential neighborhoods discourages mansionization.                                                                                                                                                                                                                                                                           |
| Policy 4.5 | Substandard parcels. Encourage improvement of existing buildings and property to comply with current standards and present an attractive and well-maintained appearance. When improvements are not feasible, support the consolidation of substandard parcels for reuse.                                                                                                           |
| Policy 5.1 | Community use of the Joint Forces Training Base. Cooperate with Joint Forces Training Base (JFTB) leadership to maximize the community use of base facilities.                                                                                                                                                                                                                     |
| Policy 5.2 | Joint Forces Training Base reuse. The JFTB shall remain a functioning military training facility within the jurisdictional boundary of the City of Los Alamitos. If the federal government decides to close the base and transition it to private, non-military use, the City of Los Alamitos shall maintain a leadership role in establishing and implementing a base reuse plan. |
| Policy 5.3 | Reuse of public land. The City shall prioritize the reuse of land not along Katella Avenue that is owned by non-city public agencies for public uses such as civic buildings, parks, or recreation facilities.                                                                                                                                                                     |
| Policy 5.4 | Flood control facilities. The City strongly supports the use of flood control facilities as public trails throughout Los Alamitos.                                                                                                                                                                                                                                                 |
| Policy 5.5 | Dual use of school property. Coordinate with LAUSD to enable public use of school facilities outside of school hours.                                                                                                                                                                                                                                                              |
| Policy 5.6 | School expansion and improvements. Coordinate with LAUSD and its consultants on technical studies for school expansion and improvement projects.                                                                                                                                                                                                                                   |

## 3. Project Description

Table 3-4 Proposed City of Los Alamitos General Plan Policies

| Number                              | Policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ECONOMIC DEVELOPMENT ELEMENT</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Policy 1.1                          | Fiscal decision making. Incorporate short-term and long-term economic and fiscal implications of proposed actions into decision-making.                                                                                                                                                                                                                                                                                                                                                                 |
| Policy 1.2                          | Fiscal disclosures. Identify and disclose potential fiscal impacts, including direct and indirect costs, as part of land use or development applications requiring City Council action.                                                                                                                                                                                                                                                                                                                 |
| Policy 1.3                          | Ongoing funding. Identify and disclose if and how a program or project will be continued upon cessation of city funding or support when the City establishes, renews, or funds a program or project lasting more than one fiscal year.                                                                                                                                                                                                                                                                  |
| Policy 1.4                          | Retail and lodging amendments. General plan amendments changing from a land use designation that permits retail uses or lodging uses to a land use designation that does not allow retail or lodging uses should only be approved in conjunction with a development agreement or other legally enforceable obligation on the property owner(s) that requires the subject property generate the same or better fiscal balance for the city as it would have generated with a retail or lodging use.      |
| Policy 1.5                          | Office and industrial amendments. General plan amendments changing from a land use designation that permits office or industrial uses to a designation that does not permit office or industrial land uses should only be approved in conjunction with a development agreement or other legally enforceable obligation on the property owner(s) that requires the subject property generate the same or better fiscal balance for the city as it would have generated with an office or industrial use. |
| Policy 1.6                          | Fiscal mitigation. Require a fiscal impact analysis and mitigation of any negative fiscal impacts for any requested general plan amendment.                                                                                                                                                                                                                                                                                                                                                             |
| Policy 1.7                          | Budgeting. Require City departments to submit an annual budget request free from reliance on one-time revenues (except for specific grant-funded projects) and unsustainable revenue and deficit spending.                                                                                                                                                                                                                                                                                              |
| Policy 2.1                          | Employment-generating uses. Maintain the integrity of office, industrial, and medical overlay areas and protect these areas from encroachment by other uses.                                                                                                                                                                                                                                                                                                                                            |
| Policy 2.2                          | Effective land use regulation. Ensure that development standards, use regulations, and the permitting process (especially discretionary permitting), are streamlined and effective, yet maintain protections for the community's quality of life.                                                                                                                                                                                                                                                       |
| Policy 2.3                          | Promote well-paying jobs. Prioritize municipal decisions, initiatives, investments, and development approvals that support the retention and expansion of well-paying jobs in Los Alamitos.                                                                                                                                                                                                                                                                                                             |
| Policy 2.4                          | Workforce development. Help existing businesses communicate their workforce needs to the Orange County Workforce Investment Board, the North Orange County Community College District, the Los Alamitos Unified School District, and other educational and workforce development organizations.                                                                                                                                                                                                         |
| Policy 2.5                          | Economic development marketing. Collaborate with regional economic development partners, such as the Los Alamitos Chamber of Commerce and the Orange County Business Council, to market Los Alamitos to potential new businesses.                                                                                                                                                                                                                                                                       |
| Policy 2.6                          | Medical services. Capitalize on the City's role as a regional medical services hub by promoting and encouraging the intensification of medical offices in areas assigned with the Medical Overlay designation.                                                                                                                                                                                                                                                                                          |
| Policy 3.1                          | Town center. Prioritize municipal decisions, initiatives, investments, and development approvals that contribute to the vision of a town center as an amenity-rich, multi-modal, and mixed-use district that is a unique regional destination and that emphasizes experience-oriented shopping.                                                                                                                                                                                                         |
| Policy 3.2                          | Business development. Collaborate with the Chamber of Commerce, the Orange County Small Business Development Center, and other economic development partners to improve access by Los Alamitos small businesses and independent retailers to business development services.                                                                                                                                                                                                                             |
| Policy 3.3                          | Quality retail environments. Require new, redeveloped, and revitalized retail centers to provide street furniture, shading, pedestrian circulation, and gathering spaces that enhance the experience of shopping.                                                                                                                                                                                                                                                                                       |

### 3. Project Description

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number                                                  | Policy                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 3.4                                              | Parking districts. Support voluntary efforts by commercial property owners to establish parking management districts (or other tools) to facilitate shared parking solutions and encourage pedestrian-oriented mixed-use buildings.                                                            |
| Policy 3.5                                              | Public-private partnerships. Prioritize municipal initiatives and investments in areas in which private sector businesses and property owners are voluntarily providing private funding through special financing districts (such as assessment districts and business improvement districts). |
| Policy 3.6                                              | Diversification. Prioritize municipal initiatives, investments, and development approvals that bring businesses in economic sectors not currently represented in Los Alamitos.                                                                                                                 |
| Policy 4.1                                              | Economic development responsibility. Promote an ethos in which economic development is the responsibility of each elected official, appointed official, and City employee.                                                                                                                     |
| Policy 4.2                                              | Economic development training. As financial resources are available, invest in economic development training for staff, elected and appointed officials, and key community stakeholders.                                                                                                       |
| Policy 4.3                                              | Business visitation. Establish and maintain an annual business visitation program that engages the owners and managers of businesses operating in Los Alamitos.                                                                                                                                |
| Policy 4.4                                              | Economic development strategy. Adopt and regularly update a comprehensive economic development strategy, either as a stand-alone plan or as part of a broader City-wide strategic plan.                                                                                                        |
| Policy 4.5                                              | Economic development partners. Collaborate effectively with regional economic development partners to achieve specific measurable goals for Los Alamitos.                                                                                                                                      |
| <b>OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT</b> |                                                                                                                                                                                                                                                                                                |
| Policy 1.1                                              | Park and recreation space. Establish a goal of providing 5 acres of park and recreation space for every 1,000 residents in Los Alamitos.                                                                                                                                                       |
| Policy 1.2                                              | Diverse needs and interests. Design and program parks and recreational facilities for people of all ages and abilities. Promote park uses such as community gardens, farmers markets, dog parks, and skate/bike parks.                                                                         |
| Policy 1.3                                              | Underserved neighborhoods. Prioritize the development of new parks and recreational facilities in neighborhoods not already within walking distance (¼-mile) of an existing facility.                                                                                                          |
| Policy 1.4                                              | Joint-use facilities. Encourage the joint use of facilities owned by public agencies and religious institutions for public parks and recreation.                                                                                                                                               |
| Policy 1.5                                              | Underutilized or surplus land. Utilize publicly-owned surplus land, easements, and rights-of-way for open space and recreational facilities.                                                                                                                                                   |
| Policy 1.6                                              | School closure. If a school site is ever closed and made available for lease or purchase, the City shall require future use or development of the site to include public recreational space equal to the recreational land area previously provided while a functional school.                 |
| Policy 1.7                                              | City-owned facilities. When evaluating the future use of city-owned facilities consider the needs of the city first and then consider use by non-municipal entities.                                                                                                                           |
| Policy 2.1                                              | Multipurpose open space. Maximize the use of public utility easements, flood control channels, school grounds, and other quasi-public areas for recreational uses and playfields.                                                                                                              |
| Policy 2.2                                              | Connectivity and image. Improve existing and establish new trails along flood control facilities to link neighborhoods and public uses, augment local and regional bicycle systems, enhance the City's image, and attract recreational cyclists and other visitors to the town center.         |
| Policy 2.3                                              | Large development. Encourage development with large buildings and/or parking structures to incorporate open space and onsite recreational amenities on rooftop areas.                                                                                                                          |
| Policy 3.1                                              | Native plants. Require the use of native and climate-appropriate plant species, and prohibit the use of plant species known to be invasive.                                                                                                                                                    |
| Policy 3.2                                              | Urban forest. Maintain and enhance a diverse and healthy urban forest on public and private lands. Incorporate and preserve mature and specimen trees at key gateways, landmarks, and public facilities.                                                                                       |

### 3. Project Description

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number                                  | Policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 3.3                              | Landscaping. Establish and maintain attractive landscaping on public and private property visible to the public, including rights-of-way, freeways access points, building frontages, and trails.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Policy 3.4                              | National and state historic resources. Preserve historical sites and buildings of state or national significance in accordance with the Secretary of Interior Standards for Historic Rehabilitation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Policy 3.5                              | Local historic resources. Encourage property owners to maintain the historic integrity of the site by (listed in order of preference): preservation, adaptive reuse, or memorialization.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Policy 3.6                              | St. Isidore. Support the preservation and repurposing of St. Isidore Historical Plaza as a business or community facility, preserving the chapel as the key historical element.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Policy 3.7                              | Public education. Support public education efforts for residents and visitors about the unique historic, natural, and cultural resources in Los Alamitos.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Policy 4.1                              | Land use and transportation. Reduce greenhouse gas and other local pollutant emissions through mixed-use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Policy 4.2                              | Sensitive Land Uses. Discourage the future siting of sensitive land uses within the distances defined by the California Air Resources Board without sufficient mitigation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Policy 4.3                              | Regional air quality. Support regional efforts to reduce particulate matter and collaborate with other agencies to improve air quality at the emission source.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Policy 4.4                              | Low and zero emission vehicles. Support development of private and public parking infrastructure facilitating the use of alternative fuel vehicles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Policy 4.5                              | Energy and water conservation. Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Policy 4.6                              | Irrigation. Encourage the use of water-efficient irrigation systems and reclaimed water for irrigation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Policy 4.7                              | Stormwater pollution. Minimize non-point source pollutants and stormwater runoff.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Policy 4.8                              | Stormwater management. Encourage the use of low impact development techniques that retain or mimic natural features for stormwater management.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Policy 4.9                              | Renewable Energy. Promote the use of renewable energy sources to serve public and private sector development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>MOBILITY AND CIRCULATION ELEMENT</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Policy 1.1                              | Multimodal network. The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Policy 1.2                              | Transportation decisions. Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Policy 1.3                              | Downtown connectivity. Downtown Los Alamitos shall be safely and comfortably accessible by car, by bike, or on foot while maintaining Los Alamitos Boulevard as a four-lane facility with sufficient space for turning movements and queuing space for school access.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Policy 1.4                              | Level of Service. Maintain a Level of Service (LOS) "D" or better along all City arterials and at intersections during peak hours, with the following exceptions:<br>A. There is a desire to prioritize pedestrians and/or bicyclists over vehicles<br>B. Insufficient ROW exists<br>C. The intersection or roadway is considered built out<br>The following intersections and roadways are exempt from the LOS D standard:<br>Katella Avenue & Los Alamitos Boulevard intersection<br>Katella Avenue & Walnut Street/Wallingsford Road intersection<br>Bloomfield Street & Cerritos Avenue intersection<br>Katella Avenue (between Interstate 605 and Walker Street)<br>Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard) |

### 3. Project Description

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number     | Policy                                                                                                                                                                                                                                                                                                                                           |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 1.5 | Multimodal LOS. Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.                                                                                                                                                                                                     |
| Policy 1.6 | Access management. Minimize access points and curb cuts along arterials and within 200 feet of an intersection to improve traffic flow and safety. Eliminate and/or consolidate driveways when new development occurs or when traffic operation or safety warrants.                                                                              |
| Policy 1.7 | Fair share of improvements. Require new development to pay a fair share of needed transportation improvements based on a project's impacts to the multimodal transportation network.                                                                                                                                                             |
| Policy 2.1 | Traffic calming. Discourage cut-through traffic in residential neighborhoods through the application of traffic-calming measures.                                                                                                                                                                                                                |
| Policy 2.2 | Joint Forces Training Base. Coordinate with JFTB administration to provide additional vehicular access points from major arterials to minimize travel through residential areas.                                                                                                                                                                 |
| Policy 2.3 | Truck routes. Plan and designate truck routes that minimize truck traffic through or near residential areas.                                                                                                                                                                                                                                     |
| Policy 3.1 | Commuting to school. Maximize the number of students walking, biking, and riding the bus to and from school.                                                                                                                                                                                                                                     |
| Policy 3.2 | Active trips. Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.                                                                                                                                                                                                                      |
| Policy 3.3 | Pedestrian bridges. Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.                                                                                                                                                                                                  |
| Policy 4.1 | Walkable business districts. Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business corridors.                                                                                                                                                                                  |
| Policy 4.2 | Site design. Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.                                                                                                                                                                                                   |
| Policy 4.3 | Intersections. Improve the safety and comfort of pedestrian and bicycle crossings at intersections.                                                                                                                                                                                                                                              |
| Policy 4.4 | Bicycle and pedestrian trails. Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.                                                                                                                                                                         |
| Policy 4.5 | Regional connections. Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.                                                                                                                                                                                                                              |
| Policy 4.6 | Bicycle and pedestrian wayfinding. Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.                                                                                                                                                                                      |
| Policy 4.7 | Transit stops. Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.                                                                                                                                                                                          |
| Policy 4.8 | Bus rapid transit. Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.                                                                                                                                                                                   |
| Policy 5.1 | Parking tools. Support innovative parking techniques to maximize parking efficiency throughout the City, especially in the Downtown, including: <ul style="list-style-type: none"> <li>▪ Shared parking</li> <li>▪ Unbundled parking</li> <li>▪ In-lieu parking fees</li> <li>▪ Parking management plans</li> <li>▪ Parking districts</li> </ul> |
| Policy 5.2 | Additions to existing uses. As a component of remodeling where square footage is added, require commercial, business, and industrial centers to provide adequate on-site parking.                                                                                                                                                                |
| Policy 5.3 | Public facilities. Provide adequate on-site parking at public facilities for daily and event-based activities, especially in the downtown and medical center areas.                                                                                                                                                                              |
| Policy 5.4 | Centralized parking. Design and establish large parking facilities and parking management districts to connect to and serve multiple activity centers.                                                                                                                                                                                           |

## 3. Project Description

Table 3-4 Proposed City of Los Alamitos General Plan Policies

| Number                                      | Policy                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 5.5                                  | Automobile parking demand. Reduce automobile parking demand by improving public transit, bicycle, and pedestrian mobility.                                                                                                                                                                                                               |
| Policy 5.6                                  | Bicycle parking. Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.                                                                                                                                                                                                          |
| Policy 5.7                                  | Motorcycle and scooter parking. Encourage businesses to provide parking spaces specifically designed for motorcycles and motorized scooters.                                                                                                                                                                                             |
| <b>PUBLIC FACILITIES AND SAFETY ELEMENT</b> |                                                                                                                                                                                                                                                                                                                                          |
| Policy 1.1                                  | Water quality and supply. Work with Golden State Water Company to maintain high water quality and ensure adequate water supply for personal use, landscaping, and fire protection.                                                                                                                                                       |
| Policy 1.2                                  | Sewer system. Work with the Rossmore Los Alamitos Sewer District to maintain adequate and efficient sewage waste disposal services.                                                                                                                                                                                                      |
| Policy 1.3                                  | Stormwater drainage. Coordinate with regional flood control agencies to protect residents and businesses from flood hazards, upgrading existing facilities to current standards whenever financially feasible.                                                                                                                           |
| Policy 1.4                                  | New development. New development shall pay its fair share of public facility and infrastructure improvements.                                                                                                                                                                                                                            |
| Policy 1.5                                  | Waste management. A waste management system that meets or exceeds state recycling and waste diversion mandates while providing cost-effective disposal of waste for residents, businesses, and the City.                                                                                                                                 |
| Policy 2.1                                  | Police and fire service. Maintain staffing, facilities, and training activities to effectively respond to emergency and general public service calls. Continue to contract fire protection services with the Orange County Fire Authority.                                                                                               |
| Policy 2.2                                  | Public safety hot spots. Prioritize improvement and enforcement activities to minimize existing and prevent future public safety hot spots.                                                                                                                                                                                              |
| Policy 2.3                                  | Interagency support. Participate in mutual aid system and automatic aid agreements to back up and supplement capabilities to respond to emergencies.                                                                                                                                                                                     |
| Policy 2.4                                  | Interagency communications. Maintain an effective communication system between emergency service providers within Los Alamitos, Rossmore, and neighboring jurisdictions.                                                                                                                                                                 |
| Policy 2.5                                  | Emergency preparedness planning. Maintain an emergency operations plan and an emergency operations center and develop a hazard mitigation plan to prepare for actual or threatened conditions of disaster or extreme peril.                                                                                                              |
| Policy 2.6                                  | Hazardous materials. The use and storage of hazardous materials shall comply with applicable federal, state, and local laws to prevent and mitigate hazardous materials releases.                                                                                                                                                        |
| Policy 3.1                                  | Flood zone. Ensure that flood control facilities continue to be designed and maintained so that no land is in a 100-year flood zone. [Exception is provided for the JFTB, which is on federal land and within an undetermined risk area.]                                                                                                |
| Policy 3.2                                  | Geologic and seismic risk. Prohibit development on unstable terrain, excessively steep slopes, and other areas deemed hazardous due to geologic and seismic hazards unless acceptable mitigation measures are implemented. Require that underground utilities be designed to withstand seismic forces and accommodate ground settlement. |
| Policy 3.3                                  | Critical and public facilities. Locate and design critical and public facilities to minimize their exposure and susceptibility to flooding, seismic and geological effects, fire, and explosions. Ensure critical use facilities (e.g., hospital, police, and fire facilities) can remain operational during an emergency.               |
| Policy 4.1                                  | Land use compatibility. Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the City's Noise Ordinance, the Land Use and Noise Compatibility Matrix, the State Interior and Exterior Noise Standards, and the Airport Environs Land Use Plan for the JFTB.              |
| Policy 4.2                                  | New residential. When new residential development is proposed adjacent to land designated for industrial or commercial uses, require the proposed development to assess potential noise impacts and fund feasible noise-related mitigation measures.                                                                                     |



### 3. Project Description

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number                                    | Policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 4.3                                | Control sound at the source. Prioritize noise mitigation measures to control sound at the source over buffers, soundwalls, and other perimeter measures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Policy 4.4                                | Noise impacts. Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Policy 4.5                                | Caltrans facilities. Coordinate with Caltrans to ensure the inclusion of noise mitigation measures in the design of new highway projects or improvements to existing facilities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Policy 4.6                                | Aircraft noise. Work with the JFTB and the Long Beach Airport (LGB) to minimize the noise impact of small aircraft and helicopters on residential neighborhoods.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Policy 5.1                                | Academic excellence. Advocate for the continued pursuit of academic excellence in the Los Alamitos Unified School District.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Policy 5.2                                | Los Alamitos Medical Center. Maintain and enhance a collaborative relationship with Los Alamitos Medical Center and other medical service providers to best serve the community, create healthy communities, and maintain and attract a skilled workforce.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Policy 5.3                                | Workforce training. Collaborate with industrial organizations, businesses, and educational institutions to create opportunities for workforce training.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>GROWTH MANAGEMENT ELEMENT</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Growth Management Element Policies</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Policy 1.1                                | New development. New development shall pay its share of the costs of public facilities and services needed to serve the new residents.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Policy 1.2                                | Development phasing. Require all new development within Los Alamitos to establish a development phasing plan commensurate with required improvements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Policy 1.3                                | Governmental collaboration. Proactively collaborate with adjacent jurisdictions to ensure that infrastructure and public services are provided in a timely and high-quality manner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Policy 1.4                                | Joint Forces Training Base. Maintain proactive communications with the Joint Forces Training Base (JFTB) regarding processes, operations, or projects in the City or at the JFTB that have the potential to impact the City of Los Alamitos, its residents, its businesses, or base operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Policy 1.5                                | Sphere of Influence. Embrace Rossmore as a part of the City's sphere of influence. Provide services to Rossmore residents and businesses if and when they choose to contract with City services or be annexed by the City.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Policy 2.1                                | <i>Policy 2.1 can also be found in the Mobility and Circulation Element as Policy 1.4.</i><br>Level of Service. Maintain a Level of Service (LOS) "D" or better along all City arterials and at intersections during peak hours, with the following exceptions:<br>A. There is a desire to prioritize pedestrians and/or bicyclists over vehicles<br>B. Insufficient ROW exists<br>C. The intersection or roadway is considered built out<br>The following intersections and roadways are exempt from the LOS D standard:<br>Katella Avenue & Los Alamitos Boulevard intersection<br>Katella Avenue & Walnut Street/Wallingsford Road intersection<br>Bloomfield Street & Cerritos Avenue intersection<br>Katella Avenue (between Interstate 605 and Walker Street)<br>Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard) |
| Policy 2.2                                | New development. New development shall pay its share of the costs associated with local and regional traffic mitigation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Policy 2.3                                | Improvement timing. Within three years of the issuance of the first building permit for a development project or within five years of the first grading permit for said development project, whichever occurs first, require the necessary improvements to transportation facilities to which the project contributes measurable traffic to be constructed and completed to attain the level of service standards established in this Element.                                                                                                                                                                                                                                                                                                                                                                                             |

### 3. Project Description

**Table 3-4 Proposed City of Los Alamitos General Plan Policies**

| Number                                                                                                                                                                                                                            | Policy                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 2.4                                                                                                                                                                                                                        | Orange County Congestion Management Plan. Maintain consistency with the County of Orange Congestion Management Plan and Master Plan of Arterial Highways pursuant to the requirement of state law to continue to receive its share of State gasoline sales tax revenues. |
| Notes: The Housing Element is not included above because the Housing Element, and its accompanying policies, were recently updated for the 2014-2021 planning period and is not a part of this comprehensive General Plan Update. |                                                                                                                                                                                                                                                                          |

### 3.5 INTENDED USES OF THE EIR

This is a Program EIR that examines the potential environmental impacts of the proposed General Plan Update. This DEIR is also being prepared to address various actions by the City and others to adopt and implement the General Plan. It is the intent of the DEIR to enable the City of Los Alamitos, other responsible agencies, and interested parties to evaluate the environmental impacts of the proposed project, thereby enabling them to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are shown in in Table 3-5, *List of Los Alamitos General Plan Update Actions*.

**Table 3-5 List of Los Alamitos General Plan Update Actions**

| Lead Agency                                      | Action                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Los Alamitos City Council                        | <ul style="list-style-type: none"> <li>▪ Certification of the City of Los Alamitos General Plan Update EIR</li> <li>▪ Adoption of findings of fact and statement of overriding considerations</li> <li>▪ Adoption of a Mitigation Monitoring Reporting Program</li> <li>▪ Adoption of the City of Los Alamitos General Plan Update</li> </ul> |
| Responsible Agencies                             | Action                                                                                                                                                                                                                                                                                                                                        |
| Orange County Airport Land Use Commission (ALUC) | <ul style="list-style-type: none"> <li>▪ Consistency determination with the Airport Environs Land Use Plan for the Los Alamitos Joint Forces Training Base</li> </ul>                                                                                                                                                                         |

### 3.6 REFERENCES

Los Alamitos, City of. 1990, May. City of Los Alamitos 2010 General Plan.

Los Alamitos, City of. 2013. Map Data. Email from Steve Mendoza, Community Development / Public Works Director.

### 3. Project Description

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## 4. Environmental Setting

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### 4.1 INTRODUCTION

The purpose of this section is to provide, pursuant to provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a “description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and a regional perspective.” The environmental setting will provide a set of baseline physical conditions that will serve as a tool from which the lead agency will determine the significance of environmental impacts resulting from the proposed project. In addition, subsections of Chapter 5, *Environmental Analysis*, provide a more detailed description of the local environmental setting for the environmental topical areas.

### 4.2 REGIONAL ENVIRONMENTAL SETTING

#### 4.2.1 Regional Location

The City of Los Alamitos is located along the northwestern boundary of Orange County, approximately 23 miles (driving distance) south of downtown Los Angeles. As shown in Figure 3-1 in Chapter 3, *Regional Location*, the City is surrounded by highly urbanized areas of Orange and Los Angeles County and abuts or is near the cities of Long Beach, Seal Beach, Hawaiian Gardens, Cypress, and Garden Grove. Interstate 605 (I-605) runs north–south along the City’s western boundary. No other interstate or state route crosses the City’s boundaries. However, Interstate 405 (I-405) travels northwest to southeast around the City’s southern boundary, and State Route 22 (SR-22) travels east to west approximately 0.4 miles south of the City, providing regional access to Los Alamitos. The City’s Sphere of Influence (SOI) encompasses the unincorporated community of Rossmoor on the southwest side of the City (see Figure 3-2, *Citywide Aerial*).

#### 4.2.2 Regional Planning Considerations

##### Air Quality and Climate Change

The City of Los Alamitos is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants for which ambient air quality standards (AAQS) have been developed are known as criteria air pollutants and include ozone (O<sub>3</sub>), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide, coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead. VOC and NO<sub>x</sub> are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O<sub>3</sub>, through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet the AAQS for that pollutant. The SoCAB is designated

## 4. Environmental Setting

nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for lead (Los Angeles County only) under the National AAQS, and nonattainment for PM<sub>10</sub> under the California AAQS.<sup>1</sup>

### *Greenhouse Gas Emissions*

Current State of California guidance and goals for reductions in greenhouse gas (GHG) emissions are generally embodied in Executive Order S-03-05; Assembly Bill 32 (AB 32), the Global Warming Solutions Act (2008); and Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act.

Executive Order S-3-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05. Based on the GHG emissions inventory conducted for its 2008 Scoping Plan, the California Air Resources Board (CARB) approved a 2020 emissions limit of 427 million metric tons of carbon dioxide-equivalent (MMTCO<sub>2e</sub>) for the state (CARB 2008).

Since release of the 2008 Scoping Plan, CARB has updated the statewide GHG emissions inventory to reflect GHG emissions in light of the economic downturn and measures not previously considered in the 2008 Scoping Plan baseline inventory. The updated forecast predicts emissions to be 507 MMTCO<sub>2e</sub> by 2020.<sup>2</sup> The new inventory identifies that an estimated 80 MMTCO<sub>2e</sub> of reductions are necessary to achieve the statewide emissions reduction of AB 32 by 2020 (CARB 2012).

In 2008, SB 375 was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO).

As the southern California region's MPO, the Southern California Association of Governments' (SCAG) targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per

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<sup>1</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

<sup>2</sup> The Statewide inventory in 2008 and the 2012 update is based on the global warming potentials (GWP) in Intergovernmental Panel on Climate Change's (IPCC) Second Assessment Report. CARB has updated the inventory as part of the 2014 Update to the Scoping Plan with GWPs in the Fourth Assessment Report. However, the inventory has not yet been updated with the GWPs in the Fifth Assessment Report.

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capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The proposed targets would result in 3 MMTCO<sub>2</sub>e of reductions by 2020 and 15 MMTCO<sub>2</sub>e of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's 2008 Scoping Plan (for AB 32) would be met (CARB 2010).

### Southern California Association of Governments

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized MPO for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives, as discussed below.

### *Regional Transportation Plan/Sustainable Communities Strategy*

On April 4, 2012, SCAG adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future (RTP/SCS). SCAG has placed a greater emphasis than ever on sustainability and integrated planning in the 2012–2035 RTP/SCS, and its RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National AAQS as set by the federal Clean Air Act. The 2012–2035 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play and how they will move around (SCAG 2012). The proposed project's consistency with the applicable 2012 RTP/SCS policies is analyzed in detail in Section 5.6, *Land Use and Planning*.

### *High Quality Transit Areas*

With the adoption of the 2012 RTP/SCS, the areas previously known as 2% Strategy Opportunity Areas were updated by SCAG and replaced with what are now called high quality transit areas (HQTAs), which are a part of and integrated into the SCS portion (Chapter 4) of the 2012 RTP/SCS. An HQTAs is generally a walkable transit village or corridor that is within a half mile of a well-served transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The overall land use pattern of the 2012 RTP/SCS focuses jobs and housing in the region's designated HQTAs (SCAG 2012). As shown in Figure 4-1, *High Quality Transit Areas in the City of Los Alamitos*, portions of the City are identified as an HQTAs in the 2012 RTP/SCS. The proposed project's consistency with the HQTAs is provided in Section 5.6, *Land Use and Planning*.

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### Orange County Transportation Authority

The Orange County Transportation Authority (OCTA) is Orange County's designated congestion management agency. OCTA is responsible for the conformance monitoring and biennial updating of Orange County's Congestion Management Program (CMP). The proposed project's consistency with the CMP is provided in Section 5.11, *Transportation and Traffic*.

### *Congestion Management Program*

The most recent CMP is the 2013 Orange County CMP. The goals of Orange County's CMP are to support regional mobility and air quality objectives by reducing traffic congestion; to provide a mechanism for coordinating land use and development decisions that support the regional economy; and to determine gas tax fund eligibility. To meet these goals, the CMP has a number of policies designed to monitor and address system performance issues. OCTA developed the policies that make up Orange County's CMP in coordination with local jurisdictions, Caltrans, and SCAQMD. Required elements include traffic level of service standards for designated facilities (OCTA 2013).

### *Master Plan of Arterial Highways*

The Master Plan of Arterial Highways (MPAH) was established in 1956 to ensure that a regional arterial highway network would be planned, developed, and preserved in order to supplement Orange County's developing freeway system. The MPAH map is a critical element of overall transportation planning and operations in Orange County, because it defines a countywide circulation system in response to existing and planned land uses. OCTA is responsible for maintaining the integrity of the MPAH system through its coordination with cities and the county and determinations of cities and Orange County consistency with the MPAH map. In order to be eligible for all Measure M2 Net Revenues as well as programs—including the Orange County Comprehensive Transportation Funding Program—a jurisdiction's general plan circulation element must be consistent with the MPAH. Consistency means that local general plans maintain the same minimum number of through lanes on each arterial highway as shown on the MPAH (OCTA 2012).

### Airport Environs Land Use Plan for the Los Alamitos Joint Forces Training Base

Approximately 50 percent of the City's total land area is occupied by the Los Alamitos Joint Forces Training Base (JFTB; see Figure 3-2, *Citywide Aerial*). The Los Alamitos JFTB is within the oversight of the Orange County Airport Land Use Commission (ALUC), which is required to prepare and adopt an airport land use plan for each of the airports within its jurisdiction. The Airport Environs Land Use Plan (AELUP) for the Los Alamitos JFTB was issued by ALUC in 2002. The AELUP is a land use compatibility plan that is intended to protect the public from adverse effects of aircraft noise, to ensure the people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable space. The AELUP identifies standards for development in the airport's planning area based on noise contours, accident potential zones, and building heights. ALUC is an agency authorized under state law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for ALUCs are noise, safety hazards, and airport operational integrity.



## 4. Environmental Setting

**Figure 4-1  
High Quality Transit Areas (HQTAs)**

-  City Boundary
-  Sphere of Influence
-  Other City Boundaries
-  High Quality Transit Area





## 4. Environmental Setting

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## 4. Environmental Setting

The City falls within the airport planning area of the Los Alamitos JFTB; land uses within the airport planning area boundaries are required to conform to safety, height, and noise restrictions established in the AELUP for Los Alamitos JFTB. The Los Alamitos JFTB has two runways, one 8,000 feet long and one 5,900 feet long, both aligned northeast–southwest (AirNav 2014). One safety compatibility zone, the Clear Zone (or Runway Protection Zone), encompasses each end of the pair of runways. As shown in Figure 5.5-1, *Los Alamitos JFTB Impact Zones*, the Clear Zone is limited to within the Los Alamitos JFTB boundaries. The entire City and SOI fall within the height restriction zone for the Los Alamitos JFTB, which is a 20,000-foot radius surrounding the runways and has a 1:100 slope. Additionally, with respect to building heights, development proposals in the City that include the construction or alteration of structures more than 200 feet above mean sea level (amsl) require filing with the Federal Aviation Administration (FAA) and notification of ALUC, including filing of a Notice of Proposed Construction or Alteration (FAA Form 7460-1). Any development project that would penetrate the FAR Part 77 Notification Surface for Los Alamitos JFTB (notification area) is also required to file FAA Form 7460-1. Furthermore, portions of the City fall within the 60 and 65 dBA CNEL noise contours of the Los Alamitos JFTB (see Figure 5.5-1).

The proposed project's consistency with the various components of the AELUP for Los Alamitos JFTB is analyzed in Sections 5.5, *Hazards and Hazardous Materials*, 5.6, *Land Use and Planning*, and 5.7, *Noise*.

### 4.3 LOCAL ENVIRONMENTAL SETTING

#### 4.3.1 Location and Land Use

The City of Los Alamitos encompasses 2,619 acres, and its SOI extends to the 982-acre unincorporated community of Rossmoor. Approximately 50 percent of the City's total land area is occupied by the Los Alamitos JFTB (see Figure 3-2, *Citywide Aerial*; Los Alamitos JFTB discussed further below), and the remaining area is developed with urban uses. As shown in Figure 3-3, *Existing Land Use*, and Table 4-1, *Existing Land Use Summary*, the urban uses throughout the City include Single Family Residential, Multi-Family Residential, Mobile Home Residential, General Office, Business Park, Medical Office, Commercial, Industrial, Public/Quasi Public Facility, Parks, and Water, as well as rights-of-way and easements. Part of the Coyote Creek and Carbon Creek channels, approximately 45 acres, flow through the City and into the San Gabriel River farther south along the City's western boundary. The City has only three acres of vacant land. As of 2013, 11,384 people called Los Alamitos home, and 14,265 people were employed by businesses in Los Alamitos. Likewise, Rossmoor is also built out and is home to 10,234 people and 395 employees.

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**Table 4-1 Existing Land Use Summary**

| Category                         | Acres        | Residential Units | Population    | Nonresidential Square Feet | Employment    |
|----------------------------------|--------------|-------------------|---------------|----------------------------|---------------|
| <b>Los Alamitos</b>              | <b>2,619</b> | <b>4,424</b>      | <b>11,384</b> | <b>7,569,720</b>           | <b>14,265</b> |
| Business Park                    | 96           | —                 | —             | 1,631,766                  | 2,912         |
| Commercial                       | 67           | —                 | —             | 1,013,431                  | 2,896         |
| General Office                   | 19           | —                 | —             | 447,115                    | 1,788         |
| Industrial                       | 95           | 3                 | 10            | 1,505,204                  | 2,150         |
| Medical Office                   | 31           | —                 | —             | 749,440                    | 3,065         |
| Multi-Family Residential         | 122          | 2,629             | 6,764         | —                          | —             |
| Other Residential                | 12           | 112               | 288           | —                          | —             |
| Parks                            | 17           | —                 | —             | —                          | —             |
| Community & Institutional        | 172          | —                 | —             | 951,862                    | 680           |
| Single Family Residential        | 275          | 1,680             | 4,322         | —                          | —             |
| Vacant                           | 3            | —                 | —             | —                          | —             |
| Water                            | 45           | —                 | —             | —                          | —             |
| ROW                              | 305          | —                 | —             | —                          | —             |
| Easement                         | 44           | —                 | —             | —                          | —             |
| Community & Institutional – JFTB | 1,283        | —                 | —             | 1,174,400                  | 675           |
| Parks – JFTB                     | 22           | —                 | —             | 8,972                      | —             |
| General Office – JFTB            | 12           | —                 | —             | 87,530                     | 100           |
| <b>Rossmoor</b>                  | <b>982</b>   | <b>3,779</b>      | <b>10,234</b> | <b>408,257</b>             | <b>395</b>    |
| Commercial                       | 6            | —                 | —             | 87,129                     | 249           |
| Medical Office                   | 1            | —                 | —             | —                          | —             |
| Multi-Family Residential         | 18           | 334               | 905           | —                          | —             |
| Parks                            | 19           | —                 | —             | 20,882                     | —             |
| Public / Quasi-Public Facility   | 45           | —                 | —             | 300,246                    | 146           |
| Single Family Residential        | 642          | 3,445             | 9,330         | —                          | —             |
| Water                            | 17           | —                 | —             | —                          | —             |
| ROW                              | 233          | —                 | —             | —                          | —             |
| <b>Grand Total</b>               | <b>3,601</b> | <b>8,203</b>      | <b>21,618</b> | <b>7,977,977</b>           | <b>14,660</b> |

Sources and assumptions:

Residential Units: Field survey and GIS analysis.

Population: U.S. Census, American Community Survey 2007–2011. 2.66 persons per household in the City of Los Alamitos (a); 2.75 persons per household in Rossmoor (b).

Nonresidential Square Footage: Field survey and GIS analysis.

Employment: U.S. Census, OnTheMap Application, Longitudinal-Employer Household Dynamics Program, 2012. Employment figures sorted to match existing land use categories.

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The City offers housing options that include small and large detached homes, townhomes, and medium- and high-density apartments, with the residential areas grouped into 16 different neighborhoods. Unlike the majority of Orange County jurisdictions, Los Alamitos actually has more multiple family housing units than single-family homes. Figure 4-2, *Residential Neighborhoods*, identifies the 16 existing neighborhoods in Los Alamitos and Rossmoor.

### 4.3.2 Joint Forces Training Base, Los Alamitos

As noted above, approximately 50 percent of the City's total land area is occupied by the Los Alamitos JFTB. The Los Alamitos JFTB is home to an Army Aviation Support Facility and the 1st Battalion of the 140th Aviation Regiment of the California Army National Guard, as well as other non-aviation-related units. The Los Alamitos JFTB provides support and training for military units and other federal, state, and local organizations. The City's General Plan land use designation of the Los Alamitos JFTB is Public/Quasi-Public Facility. The JFTB includes 200- and 150-foot private runways oriented northeast-southwest and associated taxiways, ramp space, and hangars that are part of the Los Alamitos Army Airfield (AAF). North of the two runways is the Operations and Administration for the Los Alamitos JFTB, which includes: the California Army National Guard and the U.S. Army Reserve headquarters buildings; operational and training facilities; general administration and installation support; and common-use classrooms, assembly areas, and dining facilities. The City maintains a strong partnership with the base, which hosts community events such as the annual Race on the Base and the Wings, Wheels and Rotors Expo. The base also houses the Sunburst Youth Challenge Academy, Youth Baseball Fields, and Aquatic Center, all of which are used by civilians.

### 4.3.3 General Plan and Zoning

The current Los Alamitos 2010 General Plan was adopted in May 1990, with multiple amendments since then, including a major amendment in 2000. The current General Plan has nine elements and provides the basis for current land use designations in the City, which are described in Chapter 3, *Project Description*. Table 3-1, *Current General Plan Use and Buildout Projections*, outlines the existing land use designations and provides a statistical development summary of the current General Plan; Figure 3-4, *Current Land Use Plan*, illustrates the location and distribution of land use designations.

The City's Zoning Code (Title 17 of the City's Municipal Code) provides the basis for current zoning designations and regulations in the City. The City's Zoning Map contains 8 base zoning districts (3 residential, 1 commercial, 1 office, 1 planned industrial development, 1 community facility, and 1 open space) and 1 overlay zone (Mobile Home Park).

### 4.3.4 Biological Resources

The California Natural Diversity Database (CDFW 2013) identifies a number of sensitive plant and animal species at sites around Los Alamitos, but most of these are associated with aquatic and wetland habitats at the mouth of the San Gabriel River and the open grassland habitats in the Los Alamitos JFTB. The San Gabriel River flows to the west and outside of the City of Los Alamitos. Approximately half of the City's land area is occupied by the Los Alamitos JFTB, which has potential habitat for a number of sensitive species such as the

## 4. Environmental Setting

burrowing owl (*Athene cunicularia*). The City of Los Alamitos has no jurisdiction or land use authority on this military base.

The City of Los Alamitos is urbanized (excluding the Los Alamitos JFTB); the existing vegetation is largely ornamental; and the plants and animals found there are typical of urbanized areas of the region. Two streams flow through the City: Coyote Creek flows toward the San Gabriel River inside and adjoining the northwestern part of the City, and a small section of Carbon Creek flows through the northern tip of the City. These streams flow in concrete channels and provide limited habitat for species, and the General Plan Update maintains their land use designations as Open Space.

There are several small patches of disturbed vegetation that occur along the Coyote Creek and Carbon Creek channels, along the Southern California Edison (SCE) and Union Pacific Railroad (UP) easement areas, and on the northern part of the parcels occupied by the Arrowhead Products facility on Lexington Drive. There is low potential for rare plant species to occur in these areas.

### 4.3.5 Greenhouse Gas Emissions and Air Quality

As noted above, Los Alamitos is in the SoCAB, which is managed by SCAQMD. The SoCAB is designated as nonattainment for ozone (O<sub>3</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Los Angeles County only) under the California and National ambient air quality standards (AAQS) and nonattainment for coarse inhalable particulate matter (PM<sub>10</sub>) and nitrogen dioxide (NO<sub>2</sub>) under the California AAQS.<sup>3</sup> <sup>4</sup>Additional information regarding air quality and climate change regulation affecting Los Alamitos is provided in Section 4.2.2, *Regional Planning Considerations*, above. Existing climate and air quality conditions in the City are also analyzed in Sections 5.2, *Air Quality*, and 5.4, *Greenhouse Gas Emissions*, of this DEIR.

### 4.3.6 Geology and Landform

The entire southern California region is considered seismically active. Los Alamitos is in a high seismic risk zone subject to seismic activity from various faults, including the Los Alamitos Fault—the closest fault, which also passes through the communities of Lakewood and Bellflower (CGS 2010). Other nearby faults include the Norwalk, Newport-Inglewood-Rose Canyon, El Modena, Elysian Park, and Whittier-Elsinore faults.

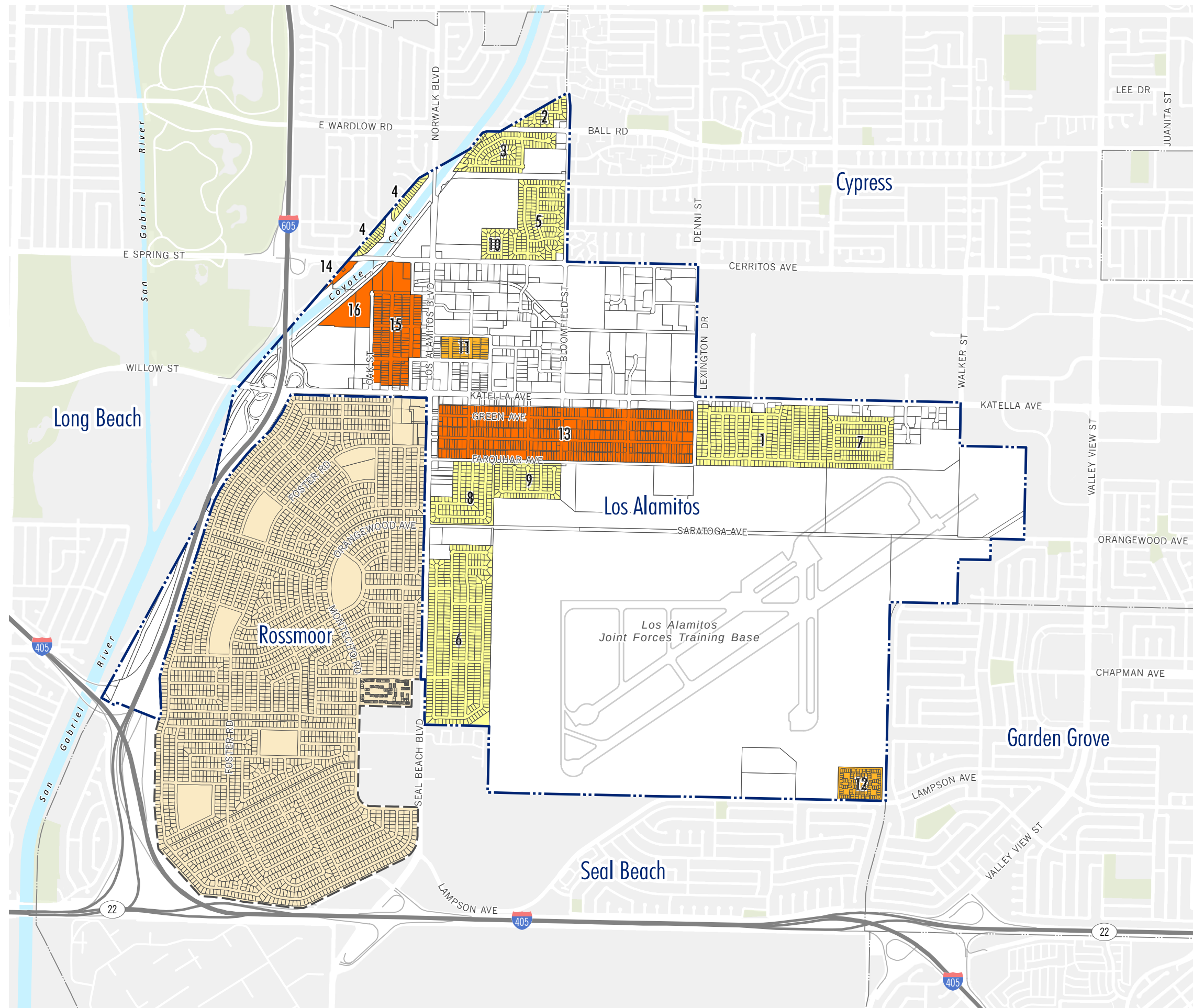
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<sup>3</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

<sup>4</sup> CARB has proposed to redesignate the SoCAB as attainment for lead and NO<sub>2</sub> under the California AAQS (CARB 2013b).

## 4. Environmental Setting

### Figure 4-2 Residential Neighborhoods





## 4. Environmental Setting

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## 4. Environmental Setting

### 4.3.7 Hydrology

Most of the City is within the Coyote Creek Watershed, which drains via several tributaries, including Coyote Creek, Brea Creek, Fullerton Creek, Carbon Creek, and the Los Alamitos Channel. The City is at Coyote Creek's confluence with the San Gabriel River. The concrete-lined, southerly flowing San Gabriel River flows year round in the lower end and is west of the City. The flood control facilities drain surface water from the cities of Los Alamitos, Cypress, Stanton, Garden Grove, and others throughout Southern California.

Alamitos Bay is the only downstream surface water body receptor in the regional drainage pattern that encompasses the City of Los Alamitos. It is classified as coastal surface water; coastal waters may be defined as waters subject to tidal action and waters in coastal sloughs.

### 4.3.8 Scenic Features

The City is in a highly urbanized area of Orange County and generally surrounded by other built-out cities, including Long Beach, Seal Beach, Cypress, Hawaiian Gardens, and Garden Grove. The City's physical setting in the Santa Ana River Basin region and relatively flat topography affords scenic views of the San Gabriel, San Bernardino, and San Jacinto Mountains. All of these vistas contribute to the unique character of Los Alamitos.

### 4.3.9 Public Services and Utilities

Public services and utilities are provided in the City of Los Alamitos by providers listed in Table 4-2. Additional information describing the existing provision of services and utilities in the City is found in Sections 5.9, *Public Services*, and 5.12, *Utilities and Service Systems*, of this DEIR.

**Table 4-2 Public Service and Utility Providers**

| Public Services                                |                                                                                         |
|------------------------------------------------|-----------------------------------------------------------------------------------------|
| Police                                         | Los Alamitos Police Department (City)<br>Orange County Sheriff's Department (Rossmoor)  |
| Fire Protection and Emergency Medical Services | Orange County Fire Authority                                                            |
| Public Schools                                 | Los Alamitos Unified School District                                                    |
| Library                                        | Orange County Public Libraries                                                          |
| Parks                                          | City of Los Alamitos (City)                                                             |
| Utilities <sup>1</sup>                         |                                                                                         |
| Water                                          | Golden State Water Company.                                                             |
| Wastewater Treatment                           | Orange County Sanitation District (OCSD) and Rossmoor Los Alamitos Area Sewer District. |
| Regional Flood Control                         | Orange County Flood Control District (OCFCD)                                            |
| Solid Waste Collection                         | Republic Services                                                                       |
| Solid Waste Disposal (Landfills)               | Republic Services                                                                       |
| Electricity                                    | Southern California Edison (SCE)                                                        |
| Natural Gas                                    | Southern California Gas Company (SoCalGas)                                              |

Note:

<sup>1</sup> Approximately 12 homes east of the Los Alamitos Channel are served by the City of Long Beach Water Department and Long Beach Gas and Oil.

## 4. Environmental Setting

### 4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed when a project's incremental effect is cumulatively considerable. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great detail as that necessary for the proposed project alone. Section 15355 of the CEQA Guidelines defines cumulative impacts to be "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of the proposed project when added to effects of past projects, other current projects, and probable future projects in the vicinity.

CEQA Guidelines Section 15130 (b)(1) states that the information utilized in an analysis of cumulative impacts should come from one of two sources, either:

- 1) A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- 2) A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impacts analyses in this DEIR use method No. 2. The proposed project consists of the Los Alamitos General Plan Update. Consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, this DEIR analyzes the environmental impacts of developments in accordance with buildout of the proposed land use plan. As a result, this DEIR addresses the cumulative impacts of development within the City of Los Alamitos and the unincorporated community of Rossmoor. In most cases, the potential for cumulative impacts is contiguous with the City and SOI boundary. Cumulative impacts that have the potential for impacts beyond the City boundary (e.g., traffic, air quality, noise) have been addressed through cumulative growth in the City and region. Regional growth outside Los Alamitos has accounted for traffic, air quality, and noise impacts through use of the OCTA's countywide travel demand model, which is a model that uses regional growth projections to calculate future traffic volumes. The growth projections adopted by the City and surrounding area are used for the cumulative impact analyses of this DEIR. Please refer to Section 5 of this DEIR for a discussion of the cumulative impacts associated with development and growth in the City and region.

### 4.5 REFERENCES

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## 5. Environmental Analysis

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Chapter 5 examines the environmental setting, impacts, and mitigation measures associated with the proposed project. This chapter is divided into sections for respective environmental issue areas that were determined to need further study in the EIR as part of the scoping process.

The scope of the environmental analysis was determined using the Initial Study and Notice of Preparation (NOP) that were published December 2013, as well as incorporating public and agency comments received concerning the NOP comment period (December 18, 2013, to January 17, 2014; see Appendix B). Environmental issues and their corresponding sections are:

- 5.1 Aesthetics
- 5.2 Air Quality
- 5.3 Cultural Resources
- 5.4 Greenhouse Gas Emissions
- 5.5 Hazards and Hazardous Materials
- 5.6 Land Use and Planning
- 5.7 Noise
- 5.8 Population and Housing
- 5.9 Public Services
- 5.10 Recreation
- 5.11 Transportation and Traffic
- 5.12 Utilities and Service Systems

Sections 5.1 through 5.12 provide detailed discussions of the environmental setting, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure are also discussed.

As presented in the Initial Study prepared for the proposed project (Appendix A), some specific issues under each of the environmental topics were determined not to be significantly affected by implementation of the project and therefore are not included for further discussion.

### Organization of Environmental Analysis

To assist the reader in comparing information about the respective environmental issues, each section (Sections 5.1 to 5.15) is organized as follows:



## 5. Environmental Analysis

- Environmental Setting
- Thresholds of Significance
- Environmental Impacts
- Applicable General Plan Policies
- Existing Regulations and Standard Conditions
- Level of Significance Before Mitigation
- Mitigation Measures
- Level of Significance After Mitigation
- References

In addition, the Executive Summary includes a table summarizing all the impacts by environmental issue.

### Terminology Used in This DEIR

For each impact identified in this DEIR, a statement of the level of significance of the impact is provided. While criteria for determining significant impacts are unique to each issue area, the environmental analysis applies a uniform classification of the impacts based on the following definitions consistent with CEQA and the CEQA Guidelines:

- A designation of ***no impact*** is given when no changes in the environment would occur.
- A ***less than significant impact*** would cause no substantial adverse change in the environment.
- A ***less than significant impact with mitigation incorporated*** avoids substantial adverse impacts on the environment through mitigation measures.
- A ***significant unavoidable impact*** would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less than significant level.

## 5. Environmental Analysis

### 5.1 AESTHETICS

This section of the Draft Environmental Report (DEIR) discusses the potential impacts to the visual character of Los Alamitos and its sphere of influence (SOI), the community of Rossmoor, associated with implementation of the General Plan Update. In addition to a discussion of the aesthetic characteristics of the environment that could be potentially degraded by implementation of the proposed project, this section demonstrates the General Plan Update's consistency with adopted policies related to visual resources. The information presented in this section is based on field reconnaissance, review of the project area and aerial photographs, and review of applicable regulations related to aesthetics and community character.

#### 5.1.1 Environmental Setting

##### Visual Setting

Los Alamitos and its SOI are a highly developed area of Orange County and generally surrounded by other built-out cities, including Long Beach, Seal Beach, Cypress, Hawaiian Gardens, and Garden Grove. Los Alamitos and Rossmoor are primarily built out and do not contain substantial undeveloped areas. For this reason, the visual setting of the community is dominated by roadways, homes, businesses, and other elements of the built environment. It is a fine-grained and consistent suburban setting that does not feature any single element that is highly prominent—such as a mountain, ridge, river, or group of tall buildings.

A notable exception to the community's fine-grained visual environment is the Los Alamitos Joint Forces Training Base (JFTB). The JFTB takes up almost half the land in the City and has a large expanse of undeveloped land, mainly between and adjacent to its runways. However, these areas are not easily visible from elsewhere in the community and therefore do not have a substantial impact on the visual setting of other portions of Los Alamitos.

##### Visual Character

The visual character of the City is suburban. Outside of the JFTB, neighborhoods are generally dominated by either low-scale residential uses or a mixture of low-scale commercial, industrial, and institutional uses. Although the community's character is shaped partially from the presence of specific land uses such as the JFTB and Los Alamitos Medical Center, the presumed center of the community—the intersection of Los Alamitos Boulevard and Katella Avenue—is marked not by a distinctive public space or collection of land uses, but rather by modest, low-scale commercial buildings and the wide arterial roadways that link them. Overall, the aesthetic environment of Los Alamitos is highly influenced by the character of its residential neighborhoods, which are dominated by modest homes with well-maintained yards and small apartment buildings. Photographs displaying the community's overall character are shown in Figure 5.1-1, *Photographs of Visual Character in Los Alamitos*.

The street network in the central and southern portions of the City is based on a rectilinear grid. The street network of residential neighborhoods in the northern portion of the City (north of Cerritos Avenue) is more discontinuous and features numerous cul-de-sacs. In the unincorporated community of Rossmoor, the street network is a combination of rectilinear and curvilinear street grids. In general, the high connectivity of streets in Los Alamitos affects its visual character by creating a visual rhythm of streets, intersections, and homes.

## 5. Environmental Analysis

### AESTHETICS

This regularity is tempered by the size, type, and distribution of the area's street trees, which vary by neighborhood.

Existing architectural styles and building designs found in Los Alamitos represent an eclectic blend of architectural expressions, primarily characterized by a variety of “franchise modern” or “builder style” influences from the past 50 years. From the City's early days of incorporation, growth has resulted in no singular or dominant authentic architectural style. In residential neighborhoods, a variety of “ranch” and Mediterranean-inspired architectural styles have gained a foothold.

#### *Landform*

Los Alamitos is in a broad, flat plain; the community has few changes in topography. Notable exceptions include the Interstate 605 (I-605) and Katella Avenue interchange, which is elevated above natural grade, and three channelized waterways, which are oriented to the perimeter of Los Alamitos below the level of surrounding land uses: San Gabriel River, Coyote Creek, and Carbon Creek.

#### *Scenic Vistas and Corridors*

The City's physical setting in the Santa Ana River Basin region and relatively flat topography afford distant scenic views of the San Gabriel, San Bernardino, and San Jacinto Mountains. Although these vistas are often obscured by weather and poor air quality, they contribute to the unique character of Los Alamitos.

Because they traverse the full length of the City and its SOI, Katella Avenue and Los Alamitos Boulevard serve as the community's primary scenic corridors. These roadways give motorists, bicyclists, and pedestrians extensive vantage points from which to view the community as a whole. Nearly all of the City's retail, restaurant, office, and public uses are located along these major corridors, which has a substantial influence on how the community is viewed and experienced. However, neither Katella Avenue nor Los Alamitos Boulevard are state-designated scenic highways; nor are they considered eligible for that distinction by the California Scenic Highway Program (Caltrans 2013).

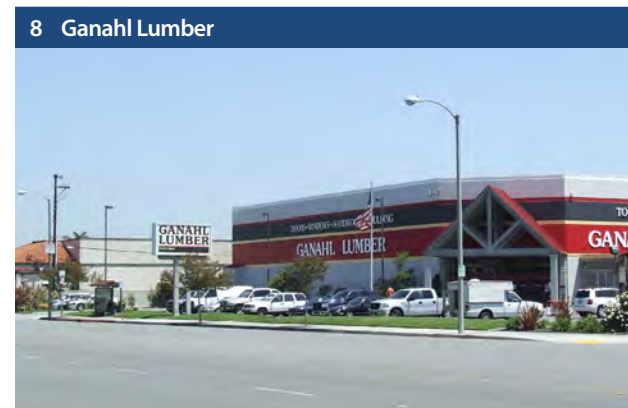
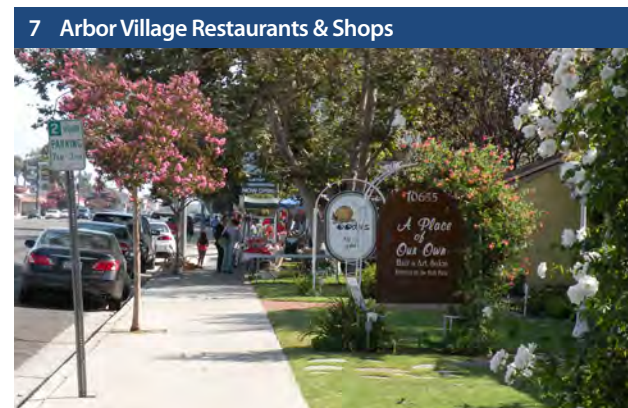
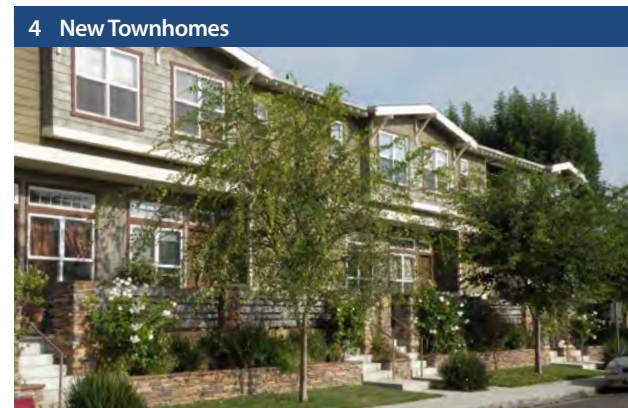
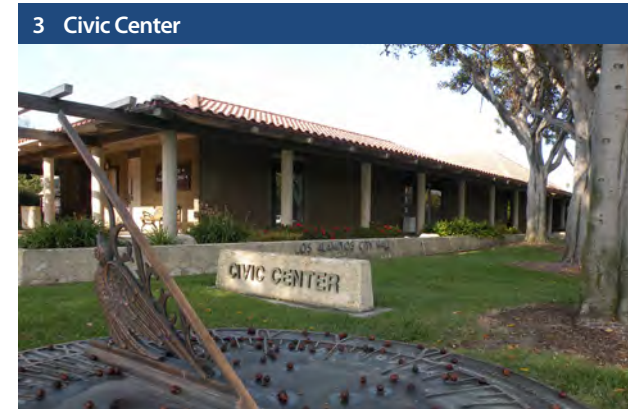
#### *Unique Scenic Resources*

Because Los Alamitos and Rossmoor are almost entirely built out with elements such as building, roadways, and parking there are no natural scenic resources that can be construed as unique or significant. In general, there is an overall lack of identifying features or landmarks in Los Alamitos that visually set it apart from adjacent communities, such as community art and iconic buildings or structures. However, Los Alamitos features individual buildings that have unique scenic and cultural value. Such landmarks include the Los Alamitos Museum (housed in the former volunteer fire station), St. Isidore Chapel, and the antique band saw displayed in front of the Ganahl Lumber Store. Furthermore, other places in Los Alamitos serve as local landmarks—such as the civic center, Laurel Park, Los Alamitos Medical Center, and various neighborhood schools. These buildings may not have substantial historic or aesthetic value, but they represent visual points of reference for residents and aid local wayfinding. The medical center, in particular, is a major landmark due to its scale and distinctive appearance. It can be seen immediately on the horizon as one exits or passes under the 605 freeway overpass on the western edge of the City. From the east, the hospital building can be seen as one reaches Laurel Park (Los Alamitos et al 2010).



## 5. Environmental Analysis

**Figure 5.1-1**  
**Photographs of Visual Character in**  
**Los Alamitos**





## 5. Environmental Analysis

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#### *Light and Glare*

Sources of light and glare in Los Alamitos include building lights (interior and exterior), security lights, sign illumination, and parking-area lighting. Other sources of nighttime light and glare include street lights and vehicular traffic along surrounding roadways. Additionally, a significant amount of ambient lighting comes from surrounding communities and roadways.

#### **Regulatory Setting**

Local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

#### *City of Los Alamitos Municipal Code*

The City of Los Alamitos Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the General Plan and proposed development projects. The following provisions from the municipal code are intended to minimize adverse aesthetic impacts associated with new development projects and are relevant to the proposed project. Chapters beginning with a prefix of “17” are part of the City’s zoning code.

- **Architectural Review Committee (Chapter 2.52).** This section of the municipal code establishes the City’s architectural review committee (ARC), which consists of members of the planning commission. The ARC is tasked with the goal to “recognize the interdependence of land values and aesthetics, provide a method by which the city may implement this interdependence to its benefit, and to the benefit of its individual citizens.” All applications for permits for the construction of any nonresidential building, structure, physical improvement, addition, extension, exterior change, or signage are subject to the committee’s review, unless the committee certifies that the project is minor or incidental and need not be reviewed. In addition to establishing procedures for the ARC, Chapter 2.52 of the code requires the City to adopt standards and guidelines for use by the ARC when reviewing applications. Despite these provisions of the code, the City’s ARC has not been active over the past few years.
- **Lighting Performance Standards (Chapter 8.48).** Among other considerations related to outdoor illumination, Chapter 8.48 addresses the visual impacts of exterior lighting on adjacent property owners and neighborhoods. The chapter outlines guidelines for the design, scale, location, and illumination level of lighting fixtures. The guidelines aim to reduce light trespass and prevent glare.
- **Standards of Design (Chapter 16.12).** This section of the municipal code outlines requirements for the design of roadways, infrastructure, slopes, landscaping, and other elements of the built environment in Los Alamitos. Although the requirements largely focus on consistency with other local plans and state regulations, they address several aesthetic concerns. Provisions that directly relate to the visual environment of the City include the requirement that new development place utility lines underground, and provisions related to adequate landscaping and screening.

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- **General Performance Standards (Chapter 17.14).** The purpose of this chapter is to provide uniform performance standards, which are designed to minimize and mitigate the potential impacts of development in the City and promote compatibility with surrounding areas and land uses. Subsections 17.14.040, Light and Glare, and 17.14.070, Property Maintenance, address aesthetics concerns. Light and glare provisions require shielding of light sources to reduce impacts on surrounding land uses. Property maintenance provisions are related to the mitigation of public nuisances, which includes abatement of visual nuisances such as overgrown vegetation, accumulation of debris, and general neglect of property.
- **Landscaping (Chapter 17.20).** Chapter 17.20 establishes landscape standards to “mitigate the effects of urbanization on the environment and to provide for an aesthetically pleasing urban setting.” Provisions establish a measure of uniformity in landscaping in existing developments when improvements are proposed. It is also the intent of this chapter to encourage optimum drought-tolerant plant materials (xeriscape) in conjunction with water-conserving automatic irrigation systems.
- **Local Landmarks (Chapter 17.22).** This section of the municipal code was established to assist in the identification and preservation of historic and cultural resources in the City. It functions as tool for preserving the visual character of Los Alamitos by requiring designated landmarks to be preserved and maintained. Per the code, proposed alterations to a local landmark are subject to the review of either the Community Development Director or the Planning Commission. Alterations are also required to comply with the Secretary of the Interior’s Standards for Rehabilitation of Historic Properties, the State Historic Building Code, and other design criteria and standards established by resolution of the Los Alamitos City Council. Provisions aimed at preserving local landmarks are primarily concerned with the exterior of the landmarks, which affects the community’s aesthetic character.
- **Signs (Chapter 17.28).** Among other goals, this chapter aims to “provide a balance between the city’s economic needs and protecting the visual appearance of the community’s character.” The chapter regulates the location, size, type, illumination, and number of signs in Los Alamitos.

#### *Katella and Los Alamitos Commercial Corridors Plan*

In 2010, the City of Los Alamitos, along with SCAG, prepared a corridor plan for Katella Avenue and Los Alamitos Boulevard. Although not formally adopted, this plan still represents the City’s vision for this area and the design standards can be utilized by the City when reviewing new projects in this area. The plan has the following six goals:

- Enhance the City’s sense of identity along the corridors and at key gateways.
- Create a central, pedestrian- and bicycle-friendly place for those who live, work, learn, and shop in Los Alamitos.
- Create a reason for people to turn left or right from Katella Avenue onto Los Alamitos Boulevard.
- Consolidate scattered office, medical, retail, and service uses into logical districts and nodes.



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- Develop strategies for the reuse of key commercial centers and other underutilized parcels and incentivize lot consolidation.
- Maximize the multimodal nature of the corridors and capitalize on future bus rapid transit (BRT) investments. (Los Alamitos et al 2010)

Because land use changes proposed under the General Plan Update are largely concentrated in nonresidential areas adjacent to or near Katella Avenue and Los Alamitos Boulevard, the vision in the Commercial Corridors Plan is particularly relevant to implementation of the General Plan Update.

The plan explores design concepts and strategies for improving the two transportation corridors themselves. However, it also establishes design guidelines for commercial development and redevelopment along the corridors. These include provisions that address building massing and form, materials, signage, site design, and parking. The guidelines do not prescribe the application of specific architectural styles along Katella and Los Alamitos. Instead, they advocate buildings that are context sensitive and of high quality, regardless style. Special attention is given to the orientation of new buildings to the public realm.

### 5.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- AE-1 Have a substantial adverse effect on a scenic vista.
- AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- AE-3 Substantially degrade the existing visual character or quality of the site and its surroundings.
- AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold AE-1
- Threshold AE-2
- Threshold AE-4

These impacts will not be addressed in the following analysis.

### 5.1.3 Environmental Impacts

The assessment of aesthetic impacts is subjective by nature. Aesthetics generally refer to the identification of visual resources and the quality of what can be seen, as well as an overall visual perception of the

## 5. Environmental Analysis

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environment. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts. Potential aesthetic impacts can be evaluated by considering proposed grade separations, landform alteration, building setbacks, scale, massing, and landscaping features associated with the design of the proposed project. It should be noted, however, that there are no locally designated or defined standards or methodologies for the assessment of aesthetic impacts.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.1-1:** Buildout in accordance with the proposed General Plan Update land use plan would alter the visual appearance of the plan area, but would not substantially degrade its existing visual character or quality. [Threshold AE-3]

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**Impact Analysis:** The General Plan Update is a comprehensive update of the City's goals and policies related to a wide spectrum of resources and issues. It also includes updates to the City's land use plan. Because the General Plan Update is not a "growth oriented" plan and Los Alamitos is almost entirely built out, new policies, land uses changes, and other components of the proposed General Plan Update are not anticipated to dramatically alter the character or visual quality of the community. No substantial changes in land use or road network are proposed. Policies that would affect the visual environment are generally aimed at capitalizing on existing opportunities for redevelopment with minimal changes to the existing land use patterns. Furthermore, upon implementation of the General Plan Update, the visual appearance of residential neighborhoods would remain largely unchanged, since few changes are proposed for those areas.

### General Plan Goals

As listed in Chapter 3, *Project Description*, 13 community values have been established for the General Plan Update. Although actions related to all of the values would have indirect impacts on visual character in Los Alamitos, two of the values directly relate to the overall aesthetic environment of the community:

- Create an attractive and pedestrian-friendly downtown
- Improve the look and identity of the City

Proposed General Plan Update policies, several which are discussed below, are intended to implement these community values.

### Aesthetic Impacts of Land Use Changes

When a new general plan update is implemented in a city or county, the most substantial changes to community character and visual quality are usually the result of changes in allowed land uses and/or increases in additional development capacity. As mentioned above, the General Plan Update is not growth oriented; it does not propose substantial increases in allowed density or apply new land use designations to large swaths of the City (or SOI). However, some changes in existing land use would occur prior to General Plan buildout, including development of approximately 535 new housing units and 903,465 square feet of nonresidential (commercial, industrial, and institutional) space. The General Plan Update includes land use changes as part

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of the proposed Land Use Element. The list below briefly discusses the potential impacts of these changes on the visual character of Los Alamitos.

#### *New Land Use Designations*

- **Limited Industrial (LI) Overlay.** The Limited Industrial (LI) land use designation would apply to a few parcels adjacent to Reagan Street that are currently designated for Planned Industrial. The new designation would explicitly permit forms of industrial, commercial recreation, and public/quasi-public uses that do not involve heavy equipment or large trucks. The Planned Industrial (PI) land use designation would remain on other industrial parcels, clearly delineating the area intended to accommodate industrial businesses over the long term without encroachment by family-oriented, nonindustrial uses. This land use change represents a small adjustment in permitted uses and would not allow new building types or new scale of development that would substantially alter the visual environment north of the medical center.
- **Medical (M) Overlay.** The proposed Medical (M) Overlay land use designation communicates the City's preference for new medical uses on the north side of Katella Avenue adjacent to the Los Alamitos Medical Center campus. Because medical uses would be allowed to construct development at a floor-area-ratio (FAR) of 3.0 instead the 1.5 allowed in the underlying PI designation, the Medical Overlay could result in more intense development on the applicable parcels. However, because the overlay applies to an area that is directly adjacent to the existing medical center, new medical office buildings would not result in an adverse change in the area's overall character. In fact, the presence of medical uses on both sides of Catalina, Florista, and Kyle Streets would be expected to increase the visual cohesiveness of the area.
- **Mixed Use Designation (MU).** The General Plan Update proposes the introduction of a Mixed Use (MU) designation on parcels in central Los Alamitos currently designated for Retail Business (see Figure 3.5, *Proposed Land Use Plan*). The MU designation would allow a vertical or horizontal mix of commercial, office, and/or residential uses on the same parcels. The maximum allowed FAR would increase to 2.0 (from 1.0 under the Retail Business designation) and the maximum allowed residential density would be 30 units per acre.

Due to the new mix of allowed uses and the additional development capacity allowed by the MU designation, the implementation of the designation would substantially alter the aesthetic environment and neighborhood character of central Los Alamitos. Buildout of applicable parcels would replace a corridor characterized by visually isolated commercial buildings and surface parking lots with a vibrant mix of uses and building types that would be more compact and cohesive. Based on goals in the Commercial Corridors Plan and the proposed General Plan, these alterations to the City's visual appearance and character would constitute a beneficial impact.

#### *Changes in Land Use Designation*

- **Arrowhead Products Site.** Arrowhead Products is an aerospace company whose facilities are on 28 acres east of Lexington Drive and north of Katella Avenue (see Figure 3.5, *Proposed Land Use Plan*). The

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City supports the company's continued operation and success on the site, but if the company ever moves its operations the proposed land use plan designates the site for Retail Business. This designation would allow a range of commercial uses at a maximum FAR of 1.0, including supermarkets, drugstores, personal services, and restaurants. General services such as auto-related sales and repair, nurseries, plumbing outlets, and home appliance stores would be permitted subject to special review procedures.

The conversion of the Arrowhead Products site from industrial manufacturing to commercial use would substantially change the visual appearance of eastern Los Alamitos. The two existing buildings would likely be replaced by numerous buildings, in addition to extensive parking and landscaped areas. However, because this conversion is unlikely in the near future, it would be speculative to analyze the localized aesthetic impacts of any future use on the site. Because the site is entirely within the plan area of the City's Commercial Corridors Plan, design guidelines in that plan would apply to future uses on the Arrowhead Products site. Compliance with those guidelines would ensure that development on the site is sensitive to its surrounding content and is of high-quality design.

- **Northwest Los Alamitos Site.** Three large parcels in the northwestern portion of the City—west of Chestnut Street between Sausalito Street and Cerritos Avenue—are proposed to change designation from Planned Industrial (PI) to Multifamily Residential (R3). The parcels currently feature industrial uses, a church, and a vacant lot. The intention of the proposed land use plan is for future development on the three parcels to better reflect surrounding residential uses, particularly those to the south across Sausalito Street. Because this land use change would create more visual cohesion in the Old Town West neighborhood, it is not anticipated to result in adverse aesthetic impacts.
- **SuperMedia/Civic Center Site.** The land fronting Katella Avenue just east of I-605 is seen as the largest viable site in the City for future retail. Collectively, this site consists of just over 13 acres of City properties (City Hall, Police Department, City Yard, and the Community Center); other public and quasi-public buildings; and SuperMedia (on the western 10 acres), which has expressed a possible desire to sell its property. Private development interest, along with the City's willingness to relocate its own facilities, indicates that this area could support a variety of retail and hospitality uses. Therefore, the proposed land use plan changes the designation of these parcels from Professional Office (PO) and Community and Institutional (C&I) to Retail Business (RB).

As with the Arrowhead Products site, redevelopment of this site would substantially alter the visual appearance of a major gateway to Los Alamitos. The SuperMedia/Civic Center site is highly visible to motorists traveling through the City on Katella Avenue and existing northbound I-605. The existing buildings would likely be replaced with numerous buildings in a different layout and featuring a different architectural style. However, the site is entirely within the plan area of the City's Commercial Corridors Plan. Design guidelines and that plan would apply to all future uses on the site. Compliance with those guidelines would ensure that development on the site is sensitive to its surrounding context and is of high-quality design.

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#### Land Use Policies

In addition to the land use changes discussed above, the proposed Land Use Element includes goals and policies that would address aesthetic concerns. Policies 4.1 through 4.5 in particular address community character and context-sensitive development. Goal 4 advocates “neighborhoods and buildings that are well maintained and demonstrate a sense of pride and identity.” Policies 4.1 through 4.5 are listed below.

- **Policy 4.1 Pride and identity** - Enhance the sense of identity and increase the feeling of pride among Los Alamitos residents, business owners, employees, and visitors through excellent physical design and continual property maintenance and improvements.
- **Policy 4.2 Corridor design** - Buildings and related improvements along the City’s arterial streets should exhibit authentic and enduring design. Although no specific architectural style is required, the City prefers that designs stay true to a single architectural style and discourage franchise architecture.
- **Policy 4.3 Multifamily neighborhoods** - Promote coordinated property maintenance and improvement in the Old Town West, Old Town East, and Apartment Row neighborhoods.
- **Policy 4.4 Mansionization** - Ensure that all new development in residential neighborhoods discourages mansionization.
- **Policy 4.5 Substandard parcels** - Encourage improvement of existing buildings and property to comply with current standards and present an attractive and well-maintained appearance. When improvements are not feasible, support the consolidation of substandard parcels for reuse.

Policies 4.1 through 4.3 and 4.5 are focused on overall design quality, and Policy 4.4 is aimed at preserving the modest and quaint character of existing residential neighborhoods. The term “mansionization” refers to the practice of replacing an existing home in an older neighborhood with a new home that is gratuitously out of scale with surrounding homes. Implementation of these policies would ensure that opportunities for development and redevelopment in Los Alamitos would also serve as opportunities for enhancement of the community’s visual environment.

#### Aesthetic Impacts of Circulation Plan

After changes in land use, the component of the proposed General Plan Update most likely to affect the visual character of Los Alamitos is the Mobility and Circulation Element. The width, number of lanes, amount of pedestrian and bicycle amenities, and materials of a roadway can have a substantial impact on how a corridor, neighborhood, or community is visually experienced. This is especially important for Los Alamitos and Rossmoor, whose overall appearance and character is greatly affected by the design and scale of Katella Avenue and Los Alamitos Boulevard.

The vast majority of streets and roadways in the plan area for the Mobility and Circulation Element are not proposed to be redesigned during the lifespan of the proposed General Plan Update. The Element focuses on targeted minor changes in select locations that would increase mobility, access, and safety in the City.

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These include new bicycle and pedestrian facilities, raised colored and textured intersections, traffic calming measures, and pedestrian bridges (pedestrian bridges are discussed in the following subsection). Such improvements would generally have a minimal effect on the overall visual appearance of the community. To the contrary, intersection improvements and/or traffic calming measures (such as curb extensions and roundabouts) would break up the visual monotony of the City's wide streets, creating visual interest with new landscaping and material changes.

A notable exception to the general lack of circulation changes planned for Los Alamitos under the General Plan Update is the redesign of Los Alamitos Boulevard. Consistent with concepts explored in the Commercial Corridors Plan, the Mobility and Circulation Element proposes that the roadway be narrowed in order to create a more walkable downtown environment. Policies in the General Plan Update seek to redesign Los Alamitos Boulevard north of Katella Avenue to maintain four through-lanes and turning movements at intersections while converting the remaining surplus space into an expanded parkway. Curb extensions would be installed at intersections to reduce crossing distance. On-street parking would be restricted north of Sausalito Street until after 9 AM to provide sufficient queuing space for vehicles turning right onto Cerritos to access the high school in the morning. These changes would fundamentally alter the visual appearance of central Los Alamitos, replacing an automobile-oriented, expressway-type environment with a more visually dynamic environment. Sidewalk bulb-outs, expanded parkways, buildings oriented to the street, and additional trees would soften the hard edges of the corridor and make it more welcoming to all users of the street. Therefore, proposed changes to Los Alamitos Boulevard would result in positive, beneficial aesthetic impacts.

#### *Pedestrian Bridges*

In order to reduce congestion at major intersections and increase safety and access for the community's schoolchildren, the Mobility and Circulation Element of the proposed General Plan proposes that pedestrian bridges be constructed across the City's major arterial roadways to connect schools with residential neighborhoods. Figure 5.11-3, *Existing and Planned Pedestrian Facilities*, in Section 5.11, *Transportation and Traffic*, shows three conceptual locations for pedestrian/bicycle bridges:

- Katella Avenue west of Oak Street (connecting Rossmoor with Oak Middle School)
- Katella Avenue east of Bloomfield Street (connecting Apartment Row with Los Alamitos Elementary School, McAuliffe Middle School, and Laurel Park)
- Cerritos Avenue east of Los Alamitos Boulevard (connecting central Los Alamitos with Los Alamitos High School)

These locations are consistent with those described in the Commercial Corridors Plan.

The City currently maintains four small monument signs at the ends of both corridors that welcome people into Los Alamitos. In addition to increasing safety and reducing congestion, pedestrian bridges would offer opportunities for larger, elevated signage to mark a clear transition into and out of the City. Consistent with the Commercial Corridors Plan, future pedestrian bridges and accompanying signage constructed pursuant to



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the General Plan Update would be required to be designed to reflect the character of the City and the neighborhoods they connect.

### Conclusion

As discussed above, some land use and circulation changes would alter the visual appearance and character of Los Alamitos. However, these changes would likely occur incrementally prior to buildout and would generally result in beneficial aesthetic impacts. Proposed changes would create more visually cohesive neighborhoods along the City's major corridors while maintaining the current appearance and character of existing residential neighborhoods, including Rossmoor. Furthermore, compliance with proposed General Plan policies related to design quality and design guidelines in the Commercial Corridors Plan would ensure that new development pursuant to the General Plan Update would not degrade the community's existing visual character or quality. Therefore, Impact 5.1-1 would be less than significant.

### 5.1.4 Applicable General Plan Policies

The relevant policies and implementation actions of the General Plan Update are designed to reduce potential aesthetic impacts of future development in the City that would be accommodated by the General Plan Update.

#### Land Use Element

- **Policy 3.1 Compatibility** - Require that new nonresidential development is located, scaled, and designed to be compatible with existing adjacent neighborhoods and uses.
- **Policy 3.2 Mitigation Measures** - Require buffers and feasible mitigation measures to reduce impacts of new or expanded uses on existing neighborhoods, businesses, and public facilities.
- **Policy 4.1 Pride and Identity** - Enhance the sense of identity and increase the feeling of pride among Los Alamitos residents, business owners, employees, and visitors through excellent physical design and continual property maintenance and improvements.
- **Policy 4.2 Corridor Design** - Buildings and related improvements along the City's arterial streets should exhibit authentic and enduring design. Although no specific architectural style is required, the City prefers that designs for individual buildings stay true to a single architectural style and discourage franchise architecture.
- **Policy 4.3 Multifamily Neighborhoods** - Promote coordinated property maintenance and improvement in the Old Town West, Old Town East, and Apartment Row neighborhoods.
- **Policy 4.4 Mansionization** - Ensure that all new development in residential neighborhoods discourages mansionization.

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- **Policy 4.5 Substandard parcels** - Encourage improvement of existing buildings and property to comply with current standards and present an attractive and well-maintained appearance. When improvements are not feasible, support the consolidation of substandard parcels for reuse.

### 5.1.5 Existing Regulations and Standard Conditions

#### State of California

- California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6, of the California Code of Regulations

#### City of Los Alamitos Municipal Code

- Title 2, Administration and Personnel, Chapter 52: Architectural Review Committee
- Title 8, Health and Safety, Chapter 48: Lighting Performance Standards
- Title 16, Subdivisions, Chapter 12: Standards of Design
- Title 17, Zoning, Chapter 14: General Performance Standards
- Title 17, Zoning, Chapter 20: Landscaping
- Title 17, Zoning, Chapter 22: Local Landmarks
- Title 17, Zoning, Chapter 28: Signs

### 5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.1-1.

### 5.1.7 Mitigation Measures

No significant adverse impacts were identified and no mitigation is necessary.

### 5.1.8 Level of Significance After Mitigation

No significant adverse impacts relating to aesthetics were identified.

### 5.1.9 References

California Department of Transportation (Caltrans). 2013. Officially Designated State Scenic Highways. <http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm>

Los Alamitos, City of. 2014. City of Los Alamitos Municipal Code. <http://qcode.us/codes/losalamitos/view.php?frames=on>

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Los Alamitos, City of, et al. 2010, June 30. Los Alamitos Commercial Corridors Plan.  
[http://cityoflosalamitos.org/?wpfb\\_dl=707](http://cityoflosalamitos.org/?wpfb_dl=707).

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### 5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Los Alamitos General Plan Update (project) to impact or be impacted by air quality in the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmore. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). The analysis focuses on air pollution from regional emissions and localized pollutant concentrations. Transportation-sector impacts are based on average daily vehicle trips and vehicle miles traveled provided by Fehr and Peers (see Appendix G). Criteria air pollutant emissions modeling for the project is included in Appendix C of this DEIR.

#### 5.2.1 Environmental Setting

##### 5.2.1.1 REGULATORY BACKGROUND

Ambient air quality standards (AAQS) have been adopted at state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of toxic air contaminants (TACs). The City of Los Alamitos is within the South Coast Air Basin (SoCAB). Land use is subject to the rules and regulations imposed by SCAQMD, as well as the California AAQS adopted by the California Air Resources Board (CARB) and National AAQS adopted by the United States Environmental Protection Agency (EPA). Federal, State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the project are summarized below.

#### Federal and State Laws

##### *Ambient Air Quality Standards*

The Clean Air Act (CAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the State to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

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Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 5.2-1, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

**Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants**

| Pollutant                                          | Averaging Time          | California Standard                   | Federal Primary Standard | Major Pollutant Sources                                                                                                                                                                          |
|----------------------------------------------------|-------------------------|---------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ozone (O <sub>3</sub> )                            | 1 hour                  | 0.09 ppm                              | *                        | Motor vehicles, paints, coatings, and solvents.                                                                                                                                                  |
|                                                    | 8 hours                 | 0.070 ppm                             | 0.075 ppm                |                                                                                                                                                                                                  |
| Carbon Monoxide (CO)                               | 1 hour                  | 20 ppm                                | 35 ppm                   | Internal combustion engines, primarily gasoline-powered motor vehicles.                                                                                                                          |
|                                                    | 8 hours                 | 9.0 ppm                               | 9 ppm                    |                                                                                                                                                                                                  |
| Nitrogen Dioxide (NO <sub>2</sub> )                | Annual Average          | 0.030 ppm                             | 0.053 ppm                | Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.                                                                                               |
|                                                    | 1 hour                  | 0.18 ppm                              | 0.100 ppm                |                                                                                                                                                                                                  |
| Sulfur Dioxide (SO <sub>2</sub> )                  | Annual Arithmetic Mean  | *                                     | *1                       | Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.                                                                                                                  |
|                                                    | 1 hour                  | 0.25 ppm                              | 0.075 ppm                |                                                                                                                                                                                                  |
|                                                    | 24 hours                | 0.04 ppm                              | *1                       |                                                                                                                                                                                                  |
| Respirable Particulate Matter (PM <sub>10</sub> )  | Annual Arithmetic Mean  | 20 µg/m <sup>3</sup>                  | *                        | Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays). |
|                                                    | 24 hours                | 50 µg/m <sup>3</sup>                  | 150 µg/m <sup>3</sup>    |                                                                                                                                                                                                  |
| Respirable Particulate Matter (PM <sub>2.5</sub> ) | Annual Arithmetic Mean  | 12 µg/m <sup>3</sup>                  | 12 µg/m <sup>3</sup>     | Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays). |
|                                                    | 24 hours                | *                                     | 35 µg/m <sup>3</sup>     |                                                                                                                                                                                                  |
| Lead (Pb)                                          | 30-Day Average          | 1.5 µg/m <sup>3</sup>                 | *                        | Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.                                                                         |
|                                                    | Calendar Quarterly      | *                                     | 1.5 µg/m <sup>3</sup>    |                                                                                                                                                                                                  |
|                                                    | Rolling 3-Month Average | *                                     | 0.15 µg/m <sup>3</sup>   |                                                                                                                                                                                                  |
| Sulfates (SO <sub>4</sub> )                        | 24 hours                | 25 µg/m <sup>3</sup>                  | *                        | Industrial processes.                                                                                                                                                                            |
| Visibility Reducing Particles                      | 8 hours                 | ExCo =0.23/km visibility of 10≥ miles | No Federal Standard      | Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid                |

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**Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants**

| Pollutant        | Averaging Time | California Standard | Federal Primary Standard | Major Pollutant Sources                                                                                                                                                                                                                                                                                                                       |
|------------------|----------------|---------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                |                     |                          | coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.                                                                                                                                     |
| Hydrogen Sulfide | 1 hour         | 0.03 ppm            | No Federal Standard      | Hydrogen sulfide (H <sub>2</sub> S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.                                      |
| Vinyl Chloride   | 24 hour        | 0.01 ppm            | No Federal Standard      | Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents. |

Source: CARB 2013a.

Notes: ppm: parts per million; µg/m<sup>3</sup>: micrograms per cubic meter

\* Standard has not been established for this pollutant/duration by this entity.

<sup>1</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established, and the existing 24-hour and annual primary standards were revoked.

## Air Pollutants of Concern

### Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb) are primary air pollutants. Of these, CO, SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are “criteria air pollutants,” which means that AAQS have been established for them. VOC and NO<sub>x</sub> are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O<sub>3</sub>) and nitrogen dioxide (NO<sub>2</sub>) are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

- **Carbon Monoxide** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation



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(SCAQMD 2005; EPA 2012). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2014a).

- **Volatile Organic Compounds** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources of VOCs include evaporative emissions associated with paints and solvents, asphalt paving, and household consumer products such as aerosols (SCAQMD 2005). There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of O<sub>3</sub>, SCAQMD has established a significance threshold for this pollutant.
- **Nitrogen Oxides** are a by-product of fuel combustion and contribute to the formation of ground-level O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO<sub>x</sub> produced by combustion is NO, but NO reacts quickly with oxygen to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO<sub>2</sub> is only potentially irritating. NO<sub>2</sub> absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO<sub>2</sub> exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO<sub>2</sub> exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO<sub>2</sub> concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005, EPA 2012). The SoCAB is designated an attainment area for NO<sub>2</sub> under the National and California AAQS (CARB 2014a).
- **Sulfur Dioxide** a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO<sub>2</sub>. When sulfur dioxide forms sulfates (SO<sub>4</sub>) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO<sub>x</sub>). Thus, SO<sub>2</sub> is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO<sub>2</sub> may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO<sub>2</sub>, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO<sub>2</sub> may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (SCAQMD 2005; EPA 2012). The SoCAB is designated attainment under the California and National AAQS (CARB 2014a).

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- **Suspended Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM<sub>10</sub>, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or PM<sub>2.5</sub>, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM<sub>10</sub> and PM<sub>2.5</sub> may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The EPA's scientific review concluded that PM<sub>2.5</sub>, which penetrates deeply into the lungs, is more likely than PM<sub>10</sub> to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (SCAQMD 2005). There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (SCAQMD 2013). However, the EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen. Particulate matter can also cause environmental effects such as visibility impairment,<sup>1</sup> environmental damage,<sup>2</sup> and aesthetic damage<sup>3</sup> (SCAQMD 2005; EPA 2012). The SoCAB is a nonattainment area for PM<sub>2.5</sub> under California and National AAQS and a nonattainment area for PM<sub>10</sub> under the California AAQS (CARB 2014a).<sup>4</sup>
- **Ozone** is commonly referred to as “smog” and is a gas that is formed when VOCs and NO<sub>x</sub>, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O<sub>3</sub> is a secondary criteria air pollutant. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O<sub>3</sub> poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O<sub>3</sub> can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O<sub>3</sub> also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O<sub>3</sub> also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O<sub>3</sub> harms sensitive vegetation during the growing season

<sup>1</sup> PM<sub>2.5</sub> is the main cause of reduced visibility (haze) in parts of the United States.

<sup>2</sup> Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

<sup>3</sup> Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

<sup>4</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM<sub>10</sub> standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

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(SCAQMD 2005; EPA 2012). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2014a).

- **Lead** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g. high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAQMD 2005; EPA 2012). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.<sup>5</sup> As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (SCAQMD 2012a, CARB 2014a). Because emissions of lead are found only in projects that are permitted by SCAQMD, lead is not a pollutant of concern for the project.

#### *Toxic Air Contaminants*

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health” (Title 17, CCR, Section 93000). A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 U.S. Code Section 7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for

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<sup>5</sup> Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012a).

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CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit that TAC. If there is a safe threshold for a substance (i.e. a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics “Hot Spot” Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a Health Risk Assessment (HRA), and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, CARB identified diesel particulate matter as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

#### ***SoCAB Multiple Air Toxics Exposure Study III***

In 2000, SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk. In 2008, SCAQMD conducted the third update to this study. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in one million. The largest contributor to this risk was diesel exhaust, accounting for approximately 84 percent of the air toxics risk in the SoCAB (SCAQMD 2008a).

#### **5.2.1.2 EXISTING CONDITIONS**

##### **South Coast Air Quality Management District**

SCAQMD is the agency responsible for assuring that the National and California AAQS are attained and maintained in the SoCAB.

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#### *Air Quality Management Planning*

SCAQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

#### ***2012 AQMP***

On December 7, 2012, SCAQMD adopted the 2012 AQMP, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on- and off-road mobile sources, and area sources. It also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP builds upon the approach identified in the 2007 AQMP for attainment of federal PM and ozone standards and highlights the significant amount of reductions needed. It also highlights the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the time frames allowed under the CAA. The 2012 AQMP demonstrates attainment of federal 24-hour PM<sub>2.5</sub> standard by 2014 and the federal 8-hour ozone standard by 2023. It includes an update to the revised EPA 8-hour ozone control plan with new commitments for short-term NO<sub>x</sub> and VOC reductions. The plan also identifies emerging issues—ultrafine (PM<sub>1.0</sub>) particulate matter, near-roadway exposure, and energy supply and demand.

#### ***Lead State Implementation Plan***

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in the City of Vernon and in the City of Industry exceeding the new standard in the 2007-to-2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new standard. On May 24, 2012, CARB approved the State Implementation Plan (SIP) revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to the EPA for approval.

#### ***SoCAB Nonattainment Areas***

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment are marginal, moderate, serious, severe, and extreme.

Transportation conformity for nonattainment and maintenance areas is required under the federal CAA to ensure that federally supported highway and transit projects conform to the SIP. The EPA approved California's SIP revisions for attainment of the 1997 8-hour O<sub>3</sub> National AAQS for the SoCAB in March 2012. Findings for the new 8-hour O<sub>3</sub> emissions budgets for the SoCAB and consistency with the recently

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adopted SCAG 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) were submitted to the EPA for approval.

The attainment status for the SoCAB is shown in Table 5.2-2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*. The SoCAB is designated in attainment of the California AAQS for sulfates. It will have to meet the new federal 8-hour O<sub>3</sub> standard by 2023 and the federal 24-hour PM<sub>2.5</sub> standards by 2014 (with the possibility of up to a five-year extension to 2019, if needed). The SoCAB is designated a nonattainment area for lead (Los Angeles County only) under the National AAQS.

**Table 5.2-2 Attainment Status of Criteria Pollutants in the South Coast Air Basin**

| Pollutant         | State                   | Federal                                              |
|-------------------|-------------------------|------------------------------------------------------|
| Ozone – 1-hour    | Extreme Nonattainment   | No Federal Standard                                  |
| Ozone – 8-hour    | Extreme Nonattainment   | Extreme Nonattainment                                |
| PM <sub>10</sub>  | Serious Nonattainment   | Attainment/Maintenance                               |
| PM <sub>2.5</sub> | Nonattainment           | Nonattainment                                        |
| CO                | Attainment              | Attainment                                           |
| NO <sub>2</sub>   | Attainment              | Attainment/Maintenance                               |
| SO <sub>2</sub>   | Attainment              | Attainment                                           |
| Lead              | Attainment              | Nonattainment (Los Angeles County only) <sup>1</sup> |
| All others        | Attainment/Unclassified | Attainment/Unclassified                              |

Source: CARB 2014a.

<sup>1</sup> In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal AAQS as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified.

### South Coast Air Basin

The City of Los Alamitos is in the SoCAB, which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest, with high mountains forming the remainder of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

### Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the City of Los Alamitos that would best represent the climatological conditions of the City is the Long Beach Monitoring Station (ID 0045085). The average low is reported at 45.3°F in December, and the average high is 83.9°F in August (WRCC 2014).

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In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through May. Rainfall averages 12.01 inches per year in the City (WRCC 2014).

#### *Humidity*

Although the SoCAB has a semi-arid climate, the air near the earth's surface is typically moist because of a shallow marine layer. This "ocean effect" is dominant except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

#### *Wind*

Wind patterns across the southern coastal region are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east inhibit the eastward transport and diffusion of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

#### *Inversions*

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

### Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and project area are best documented by measurements made by SCAQMD. The City of Los Alamitos lies within Source Receptor Area (SRA) 17 (Central Orange County). The air quality monitoring station closest to the City in SRA 17 is the Anaheim Monitoring Station. However, this station does not monitor SO<sub>2</sub>. Consequently, data was obtained from the Long Beach Webster Street Monitoring Station for SO<sub>2</sub>. Data from these stations are summarized in Table 5.2-3. The data show that the area occasionally exceeds the state and



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federal one-hour and eight-hour O<sub>3</sub> standards and the state PM<sub>10</sub>. The data show the area regularly exceeds the federal PM<sub>2.5</sub> standards. The CO, SO<sub>2</sub>, federal PM<sub>10</sub>, and NO<sub>2</sub> standards have not been exceeded in the last five years in the project vicinity.

**Table 5.2-3 Ambient Air Quality Monitoring Summary**

| Pollutant/Standard                                       | Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations |       |       |       |       |
|----------------------------------------------------------|----------------------------------------------------------------------------------|-------|-------|-------|-------|
|                                                          | 2009                                                                             | 2010  | 2011  | 2012  | 2013  |
| <b>Ozone (O<sub>3</sub>)<sup>1</sup></b>                 |                                                                                  |       |       |       |       |
| State 1-Hour ≥ 0.09 ppm                                  | 0                                                                                | 1     | 0     | 0     | 0     |
| State 8-hour ≥ 0.07 ppm                                  | 2                                                                                | 1     | 1     | 0     | 0     |
| Federal 8-Hour > 0.075 ppm                               | 1                                                                                | 1     | 0     | 0     | 0     |
| Max. 1-Hour Conc. (ppm)                                  | 0.093                                                                            | 0.104 | 0.088 | 0.079 | 0.084 |
| Max. 8-Hour Conc. (ppm)                                  | 0.077                                                                            | 0.088 | 0.073 | 0.068 | 0.070 |
| <b>Carbon Monoxide (CO)<sup>1</sup></b>                  |                                                                                  |       |       |       |       |
| State 8-Hour > 9.0 ppm                                   | 0                                                                                | 0     | 0     | 0     | 0     |
| Federal 8-Hour ≥ 9.0 ppm                                 | 0                                                                                | 0     | 0     | 0     | 0     |
| Max. 8-Hour Conc. (ppm)                                  | 2.73                                                                             | 1.98  | 2.08  | 2.34  | NA    |
| <b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>1</sup></b>     |                                                                                  |       |       |       |       |
| State 1-Hour ≥ 0.18 ppm                                  | 0                                                                                | 0     | 0     | 0     | 0     |
| Max. 1-Hour Conc. (ppb)                                  | 68.0                                                                             | 73.3  | 73.8  | 67.3  | 64.5  |
| <b>Sulfur Dioxide (SO<sub>2</sub>)<sup>2</sup></b>       |                                                                                  |       |       |       |       |
| State 1-Hour ≥ 0.04 ppm                                  | NA                                                                               | 0     | 0     | 0     | 0     |
| Max. 1-Hour Conc. (ppm)                                  | NA                                                                               | 0.003 | 0.013 | 0.004 | 0.004 |
| <b>Coarse Particulates (PM<sub>10</sub>)<sup>1</sup></b> |                                                                                  |       |       |       |       |
| State 24-Hour > 50 µg/m <sup>3</sup>                     | 1                                                                                | 0     | 2     | 0     | 1     |
| Federal 24-Hour > 150 µg/m <sup>3</sup>                  | 0                                                                                | 0     | 0     | 0     | 0     |
| Max. 24-Hour Conc. (µg/m <sup>3</sup> )                  | 97.4                                                                             | 43.0  | 53.0  | 48.0  | 77.0  |
| <b>Fine Particulates (PM<sub>2.5</sub>)<sup>1</sup></b>  |                                                                                  |       |       |       |       |
| Federal 24-Hour > 35 µg/m <sup>3</sup>                   | 5                                                                                | 0     | 2     | 4     | 1     |
| Max. 24-Hour Conc. (µg/m <sup>3</sup> )                  | 64.5                                                                             | 41.7  | 46.7  | 50.1  | 37.8  |

Source: CARB 2014c.

ppm: parts per million; parts per billion: ppb; µg/m<sup>3</sup>: micrograms per cubic meter; NA: not available

<sup>1</sup> Data obtained from the Anaheim Monitoring Station

<sup>2</sup> Data obtained from the Long Beach Webster Street Monitoring Station.

## Existing Emissions

Table 5.2-4, *Existing Los Alamitos and Rossmore Criteria Air Pollutant Emissions Inventory*, is based on existing land uses in the City and SOI. Criteria air pollutant emissions generated in the City and SOI were estimated using EMFAC2011, OFFROAD2007, and CalEEMod 2013.2.2 emission factors.

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**Table 5.2-4 Existing City of Los Alamitos and Rossmoor Criteria Air Pollutant Emissions Inventory**

| Sector                              | Criteria Air Pollutant Emissions<br>(pounds per day) |                 |              |                 |                  |                   |
|-------------------------------------|------------------------------------------------------|-----------------|--------------|-----------------|------------------|-------------------|
|                                     | VOC                                                  | NO <sub>x</sub> | CO           | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| On-Road Transportation <sup>1</sup> | 153                                                  | 1,163           | 4,544        | 12              | 145              | 67                |
| Energy <sup>2</sup>                 | 12                                                   | 108             | 63           | 1               | 9                | 9                 |
| Area Sources <sup>3</sup>           | 575                                                  | 129             | 1,736        | 0               | 12               | 12                |
| <b>Total</b>                        | <b>741</b>                                           | <b>1,399</b>    | <b>6,343</b> | <b>13</b>       | <b>165</b>       | <b>87</b>         |

Source: Values may not add up to 100 percent due to rounding. Criteria air pollutant emissions associated with the Los Alamitos Joint Forces Training Base (JFTB) are excluded from this inventory because emissions are under federal jurisdiction. Furthermore, no information on emissions associated with base activities is available from the U.S. military. Therefore, in accordance with California protocols for community-wide inventories, emissions are not a part of the City's community-wide inventory.

<sup>1</sup> EMFAC2011-PL; Fehr and Peers 2014.

<sup>2</sup> CalEEMod, Version 2013.2.2 emission rates; Southern California Gas Company (SoCalGas) 2014.

<sup>3</sup> OFFROAD2007 and CalEEMod, Version 2013.2.2 emission rates.

### Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

### 5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.
- AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- AQ-3 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

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AQ-4 Expose sensitive receptors to substantial pollutant concentrations.

AQ-5 Create objectionable odors affecting a substantial number of people.

#### 5.2.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The analysis of the project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website.<sup>6</sup> CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD have established regional thresholds of significance. In addition to the regional thresholds, projects are also subject to the AAQS.

#### SCAQMD Regional Significance Thresholds

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5.2-5, *SCAQMD Significance Thresholds*, lists SCAQMD's regional significance thresholds. There is growing evidence that although ultrafine particulates (UFPs) contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the EPA or CARB have yet to adopt AAQS to regulate UFPs; therefore, SCAQMD has not developed thresholds for them at this time.

**Table 5.2-5 SCAQMD Significance Thresholds**

| Air Pollutant                                                    | Construction Phase | Operational Phase |
|------------------------------------------------------------------|--------------------|-------------------|
| Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs) | 75 lbs/day         | 55 lbs/day        |
| Carbon Monoxide (CO)                                             | 550 lbs/day        | 550 lbs/day       |
| Nitrogen Oxides (NO <sub>x</sub> )                               | 100 lbs/day        | 55 lbs/day        |
| Sulfur Oxides (SO <sub>x</sub> )                                 | 150 lbs/day        | 150 lbs/day       |
| Particulates (PM <sub>10</sub> )                                 | 150 lbs/day        | 150 lbs/day       |
| Particulates (PM <sub>2.5</sub> )                                | 55 lbs/day         | 55 lbs/day        |

Source: SCAQMD 2011a.

#### CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service (LOS) E or worse without improvements (Caltrans 1997).

<sup>6</sup> SCAQMD's Air Quality Significance Thresholds are current as of March 2011 and can be found at: <http://www.aqmd.gov/ceqa/hdbk.html>.

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#### Localized Significance Thresholds

SCAQMD identifies localized significance thresholds. Emissions of NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at a project site (offsite mobile-source emissions are not included in the LST analysis) could expose sensitive receptors to substantial concentrations of criteria air pollutants. Table 5.2-6, *Localized Significance Thresholds*, shows the localized significance thresholds. A project that generates emissions that trigger a violation of the AAQS when added to the local background concentrations would generate a significant impact.

**Table 5.2-6 Localized Significance Thresholds**

| Air Pollutant (Relevant AAQS)                                           | Concentration          |
|-------------------------------------------------------------------------|------------------------|
| 1-Hour CO Standard (California AAQS)                                    | 20 ppm                 |
| 8-Hour CO Standard (California AAQS)                                    | 9.0 ppm                |
| 1-Hour NO <sub>2</sub> Standard (California AAQS)                       | 0.18 ppm               |
| Annual NO <sub>2</sub> Standard ((California AAQS)                      | 0.03 ppm               |
| 24-Hour PM <sub>10</sub> Standard – Construction (SCAQMD) <sup>1</sup>  | 10.4 µg/m <sup>3</sup> |
| 24-Hour PM <sub>2.5</sub> Standard – Construction (SCAQMD) <sup>1</sup> | 10.4 µg/m <sup>3</sup> |
| 24-Hour PM <sub>10</sub> Standard – Operation (SCAQMD) <sup>1</sup>     | 2.5 µg/m <sup>3</sup>  |
| 24-Hour PM <sub>2.5</sub> Standard – Operation (SCAQMD) <sup>1</sup>    | 2.5 µg/m <sup>3</sup>  |

Source: SCAQMD 2011a and CARB 2013a.

ppm – parts per million; µg/m<sup>3</sup> – micrograms per cubic meter

<sup>1</sup> Threshold is based on SCAQMD Rule 403. Since the SoCAB is nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>, the threshold is the an allowable change in concentration.

Background concentration is irrelevant.

#### Health Risk Thresholds

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table 5.2-7, *Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. Residential, commercial, and office uses do not use substantial quantities of TACs, so these thresholds are typically applied to new industrial projects. Although not officially adopted by SCAQMD, these thresholds are also commonly used to determine the air quality land use compatibility when major sources of TACs are within 1,000 feet of a project.

**Table 5.2-7 Toxic Air Contaminants Incremental Risk Thresholds**

|                                  |                   |
|----------------------------------|-------------------|
| Maximum Incremental Cancer Risk  | ≥ 10 in 1 million |
| Hazard Index (project increment) | ≥ 1.0             |

Source: SCAQMD 2011a.

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### 5.2.3 Environmental Impacts

#### 5.2.3.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the project. SCAQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating air quality impacts, which were used in this analysis. The City's criteria air pollutant emissions inventory includes the following sectors:

- **On-Road Transportation:** Transportation emissions forecasts were modeled using CARB's EMFAC2011-PL for running exhaust emissions. Model runs were based on daily per capita vehicle miles traveled (VMT) data provided by Fehr and Peers using the Orange County Transportation Authority's regional transportation demand model (OCTAM) and 2010 (existing) and 2035 emission rates.
- **Energy:** Natural gas use for residential and nonresidential land uses in the City of Los Alamitos and Rossmoor was modeled using data compiled by the Southern California Gas Company (SoCalGas) for years 2013, 2012, and 2011. Residential energy use is adjusted for increases in residential units and non-residential energy use is adjusted for increases in employment in the City of Los Alamitos and Rossmoor. Criteria air pollutant emissions are based on the natural gas emission rates in the CalEEMod User's Guide, Version 2013.2.2.
- **Area Sources:** OFFROAD2007 was used to estimate criteria air pollutant emissions from construction and mining equipment, lawn and garden equipment, and light commercial equipment, in the City of Los Alamitos. OFFROAD2007 is a database of equipment use and associated emissions for each county compiled by CARB. Annual emissions were compiled using OFFROAD2007 for Orange County for the year 2013. In order to determine the percentage of emissions attributable to the City of Los Alamitos and Rossmoor, emissions for the City of Los Alamitos and Rossmoor are extrapolated based on building constructions, population, or employment for the City of Los Alamitos and Rossmoor as a percentage of Orange County as a whole. Forecasts are assumed to be similar to historic for construction while lawn and garden equipment and light commercial equipment are adjusted for increases in population and employment, respectively, in the City of Los Alamitos and Rossmoor.

Criteria air pollutant emissions associated with the Los Alamitos Joint Forces Training Base (JFTB) are excluded from this inventory because emissions are under federal jurisdiction. Furthermore, no information on emissions associated with base activities is available from the U.S. military institution. Therefore, in accordance with California protocols for community inventories, emissions are not a part of the City's community inventory. Likewise, permitted sources of emissions (industrial), which require a permit from SCAQMD, are not included in the City's community inventory.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.2-1:** Buildout of the project would generate slightly more growth than the existing General Plan; therefore, the project would be inconsistent with SCAQMD's air quality management plans. [Threshold AQ-1]

**Impact Analysis:** The following describes potential air quality impacts of consistency with the AQMP from the implementation of the project.

CEQA requires that general plans be evaluated for consistency with the air quality management plan(s). A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the air quality management plan(s). It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals in the air quality management plan(s). Only new or amended general plan elements, specific plans, and major projects need to undergo a consistency review. This is because the air quality management plan strategy is based on projections from local general plans.

SCAQMD considers a project consistent with the air quality management plan if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments, and similar land use plan changes that do not increase dwelling unit density, vehicle trips, or vehicle miles traveled are deemed to not exceed this threshold (SCAQMD 1993). The 2012 RTP/SCS is partially based on the existing General Plan land use designations in the County of Orange and the City of Los Alamitos. The horizon year for the 2012 RTP/SCS is 2035. Table 5.2-8, *Comparison of Population, Employment, and VMT Forecasts*, compares the population, employment, and daily VMT generation of the General Plan Update compared to the population, employment, and daily VMT generation of the Current General Plan, which is used for regional air quality management planning. As shown in Table 5.2-8, buildout of the project would result in less population but more employment for the City of Los Alamitos and Rossmoor than the Current General Plan, resulting in a slight increase in service population and VMT.

**Table 5.2-8 Comparison of Population, Employment, and VMT Forecasts in Los Alamitos and Rossmoor**

| Scenario                                               | Population | Employment | Service Population (SP) | Daily VMT <sup>1</sup> |
|--------------------------------------------------------|------------|------------|-------------------------|------------------------|
| Current General Plan                                   | 24,744     | 16,643     | 41,387                  | 1,446,286              |
| General Plan Update                                    | 23,003     | 18,430     | 41,433                  | 1,467,916              |
| General Plan Update – Change from Current General Plan | -1,741     | 1,787      | 46                      | 21,630                 |

Source: Fehr and Peers 2013. Based on the full trip length for interjurisdictional trips.

<sup>1</sup> VMT based on VMT per service population in 2035 provided by Fehr and Peers using OCTAM.

Although individual development projects would be consistent with the control measures/regulations identified in SCAQMD's 2012 AQMP, Table 5.2-8 shows that the project would generate slightly more growth for the City of Los Alamitos and Rossmoor than the Current General Plan. As identified in Table 5.2-8, the project would not be consistent with the air quality management plans because buildout of the City of Los Alamitos and Rossmoor under the project would exceed the forecasts in the air quality

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attainment plans. Consequently, the project would cumulatively contribute to the existing nonattainment designations in the SoCAB because these emissions are not included in the current regional emissions inventory for the SoCAB. The project would be considered inconsistent with the SCAQMD's AQMP, resulting in a significant impact in this regard.

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**Impact 5.2-2:** Construction activities associated with the project would generate a substantial increase in short-term criteria air pollutant emissions that exceed the threshold criteria and would cumulatively contribute to the nonattainment designations of the SoCAB. [Thresholds AQ-2, AQ-3, and AQ-4]

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**Impact Analysis:** The following describes potential regional and localized construction air quality impacts in the City of Los Alamitos and Rossmoor from the implementation of the project.

Construction activities associated with development that would be accommodated by the project would occur over the buildout horizon (post-2035) of the project and cause short-term emissions of criteria air pollutants. The primary source of NO<sub>x</sub>, CO, and SO<sub>x</sub> emissions is the operation of construction equipment. The primary sources of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions are activities that disturb the soil, such as grading and excavation, road construction, building demolition and construction, and off-road vehicle exhaust. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. A discussion of health impacts associated with air pollutant emissions generated by construction activities is included under "Air Pollutants of Concern" in Section 5.2.1, *Environmental Setting*.

Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with construction activity. Due to the scale of development activity associated with theoretical buildout of the project, emissions would likely exceed the SCAQMD regional significance thresholds and therefore, in accordance with the SCAMQD methodology, would cumulatively contribute to the nonattainment designations of the SoCAB. The SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for lead (Los Angeles County only) under the National AAQS, and nonattainment for PM<sub>10</sub> under the California AAQS.<sup>7</sup> Emissions of VOC and NO<sub>x</sub> are precursors to the formation of O<sub>3</sub>. In addition, NO<sub>x</sub> is a precursor to the formation of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). Therefore, the project would cumulatively contribute to the existing nonattainment designations of the SoCAB.

Air quality emissions related to construction must be addressed on a project-by-project basis. For this broad-based General Plan Update, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of SCAQMD's short-term regional or localized construction emissions thresholds. In addition to regulatory measures (e.g., new source review, permit to operate, rules for fugitive dust control, and CARB's airborne toxic control measures), mitigation may include extension of construction schedules and/or use of special equipment.

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<sup>7</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.



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The following project policy would reduce construction-related criteria air pollutant emissions to the extent feasible:

#### *Open Space, Recreation, and Conservation Element:*

- **Policy 4.3 Regional air quality** - Support regional efforts to reduce particulate matter and collaborate with other agencies to improve air quality at the emission source.

Nevertheless, because of the likely scale and extent of construction activities pursuant to the future development that would be accommodated by the project, at least some projects would likely continue to exceed the relevant SCAQMD thresholds. Consequently, construction-related air quality impacts associated with development in accordance with the project are deemed significant.

It should be noted that mass emissions from a project are not correlated with concentrations of air pollutants. Projects that exceed the regional significance threshold contribute to the nonattainment designation. Since the attainment designation is based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health, the proposed General Plan Update would cumulatively contribute to health impacts within the SoCAB. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Regional emissions contribute to these known health effects, but it is speculative for this broad based General Plan Update to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment since mass emissions are not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health effects cited above. The SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. To achieve the health-based standards established by the EPA, the SCAQMD prepares an AQMP that details regional programs to attain the AAQS. However, because cumulative development within the Los Alamitos and Rossmoor would exceed the regional significance thresholds, the project could contribute to an increase in health effects in the basin until such time the attainment standard are met in the SoCAB.

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**Impact 5.2-3:** Long-term operation of the project would generate a substantial increase in criteria air pollutant emissions that exceed the threshold criteria and would cumulatively contribute to the nonattainment designations of the SoCAB. [Thresholds AQ-2 and AQ-3]

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**Impact Analysis:** The following describes potential regional operational air quality impacts in the City of Los Alamitos from implementation of the project. This analysis is based on a comparison of the Proposed Land Use Plan to existing land uses and not to the Current General Plan land use map (see Chapter 7, *Alternatives*).

It is important to note that the project is a regulatory document that sets up the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur in the City of Los Alamitos and Rossmoor, all such development is required to be analyzed for

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conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

The project guides growth and development within the City of Los Alamitos and its SOI by designating land uses in the project and through implementation of the goals and policies of the project. New development would increase air pollutant emissions in the City of Los Alamitos and Rossmoor and contribute to the overall emissions inventory in the SoCAB. A discussion of health impacts associated with air pollutant emissions generated by operational activities is included in the Air Pollutants of Concern discussion in Section 5.2.1, *Environmental Setting*.

The project sets the direction for the development of residential and non-residential land uses within developed and undeveloped portions of the City of Los Alamitos and Rossmoor. Buildout of the project would result in an increase in land use intensity in the City of Los Alamitos and Rossmoor, as shown in Table 3-2 in Chapter 3, *Project Description*.

#### General Plan Buildout

The increase in criteria air pollutant emissions for the full buildout scenario is based on the difference between existing land uses and land uses associated with buildout of the project. Buildout of the project is not linked to any development time frame. Table 5.2-9, *General Plan Buildout City of Los Alamitos and Rossmoor Criteria Air Pollutant Emissions Inventory*, shows a forecast of the City of Los Alamitos and SOI criteria air pollutant emissions inventory in post-2035 compared to the daily emissions thresholds.

As shown in Table 5.2-9, buildout of the project would generate long-term emissions that exceed the daily SCAQMD thresholds for VOC, NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. The SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for lead (Los Angeles County only) under the National AAQS, and nonattainment for PM<sub>10</sub> under the California AAQS.<sup>8</sup> Emissions of VOC and NO<sub>x</sub> are precursors to the formation of O<sub>3</sub>. In addition, NO<sub>x</sub> is a precursor to the formation of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). Therefore, the project would cumulatively contribute to the existing nonattainment designations of the SoCAB.

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<sup>8</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

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**Table 5.2-9 General Plan Buildout City of Los Alamitos and Rossmoor Criteria Air Pollutant Emissions Inventory**

| Sector                                  | Criteria Air Pollutant Emissions<br>(pounds per day) |                 |       |                 |                  |                   |
|-----------------------------------------|------------------------------------------------------|-----------------|-------|-----------------|------------------|-------------------|
|                                         | VOC                                                  | NO <sub>x</sub> | CO    | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| <b>Existing (2035 Emission Rates)</b>   |                                                      |                 |       |                 |                  |                   |
| Energy <sup>1</sup>                     | 53                                                   | 381             | 1,738 | 12              | 139              | 60                |
| Transportation <sup>2</sup>             | 12                                                   | 108             | 63    | 1               | 9                | 9                 |
| Area <sup>1, 3</sup>                    | 575                                                  | 129             | 1,736 | <1              | 12               | 12                |
| Existing Land Uses Total                | 641                                                  | 617             | 3,538 | 13              | 159              | 81                |
| <b>Post – 2035</b>                      |                                                      |                 |       |                 |                  |                   |
| Energy <sup>1</sup>                     | 66                                                   | 473             | 2,160 | 15              | 173              | 75                |
| Transportation <sup>2</sup>             | 14                                                   | 123             | 74    | 1               | 10               | 10                |
| Area <sup>1, 3</sup>                    | 632                                                  | 144             | 1,978 | <1              | 14               | 13                |
| Horizon Year 2035 Land Uses Total       | 712                                                  | 740             | 4,212 | 16              | 196              | 98                |
| <b>Net Change in Emissions – P-2035</b> |                                                      |                 |       |                 |                  |                   |
| Net Change 2035 Land Uses Total         | 71                                                   | 631             | 3,582 | 14              | 168              | 84                |
| Daily Significance Threshold (SCAQMD)   | 55                                                   | 55              | 550   | 150             | 150              | 55                |
| Exceeds Daily Significance Threshold    | Yes                                                  | Yes             | Yes   | No              | Yes              | Yes               |

Source: Values may not sum to 100 percent due to rounding. Criteria air pollutant emissions associated with the Los Alamitos Joint Forces Training Base (JFTB) are excluded from this inventory in accordance with California protocols for communitywide inventories.

<sup>1</sup> CalEEMod Version, 2013.2.2 emission rates.

<sup>2</sup> EMFAC2011-PL; Fehr and Peers 2014.

<sup>3</sup> OFFROAD2007; CalEEMod, Version 2013.2.2 emission rates.

### Summary

As identified above, criteria air pollutants generated throughout the lifetime of the project would exceed the significance thresholds of SCAQMD and cumulatively contribute to the nonattainment designations of the SoCAB.

Implementation of project policies would reduce impacts to the extent feasible (see Section 5.2-4, *Applicable General Plan Policies*, below).

#### ***Open Space, Recreation, and Conservation Element:***

- **Policy 4.1 Land use and transportation** - Reduce greenhouse gas and other local pollutant emissions through mixed-use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
- **Policy 4.3 Regional air quality** - Support regional efforts to reduce particulate matter and collaborate with other agencies to improve air quality at the emission source.
- **Policy 4.4 Low and zero emission vehicles** - Support development of private and public parking infrastructure facilitating the use of alternative fuel vehicles.

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- **Policy 4.5 Energy and water conservation** - Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.
- **Policy 4.9 Renewable Energy** - Promote the use of renewable energy sources to serve public and private sector development.

#### *Mobility and Circulation Element:*

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.
- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.
- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.
- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.
- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.
- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.
- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.
- **Policy 5.5 Automobile parking demand** - Reduce automobile parking demand by improving public transit, bicycle, and pedestrian mobility.
- **Policy 5.1 Parking tools** - Support innovative parking techniques to maximize parking efficiency throughout the City, especially in the Downtown, including:
  - Shared parking
  - Unbundled parking
  - In-lieu parking fees

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- Parking management plans
  - Parking districts
- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.

#### *Housing Element*

- **Policy Action 1.2** - Single-Family Rehabilitation Loan Program
- **Policy Action 2.3** - Energy Conservation
- **Policy Action 2.4** - Green Building Program
- **Policy Action 4.4** - Review and Revise Multi-Family Parking Requirements

It should be noted that mass emissions from a project are not correlated with concentrations of air pollutants. Projects that exceed the regional significance threshold contribute to the nonattainment designation. As the attainment designation is based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health, the proposed General Plan Update would cumulatively contribute to health impacts within the SoCAB. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Regional emissions contribute to these known health effects, but it is speculative for this broad-based General Plan Update to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment, since mass emissions are not correlated with concentrations of emissions, or how many additional individuals in the air basin would be affected by the health effects cited above. The SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. To achieve the health-based standards established by the EPA, the SCAQMD prepares an AQMP that details regional programs to attain the AAQS. However, because cumulative development within the Los Alamitos and Rossmoor would exceed the regional significance thresholds, the project could contribute to an increase in health effects in the basin until such time the attainment standard are met in the SoCAB. Operational-related air quality impacts associated with future development that would be accommodated by the project are significant.

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**Impact 5.2-4:** Buildout of the project could result in new source sources of criteria air pollutant emissions and/or toxic air contaminants proximate to existing or planned sensitive receptors. [Threshold AQ-4]

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**Impact Analysis:** The following describes potential localized operational air quality impacts in the City of Los Alamitos and Rossmoor from the implementation of the project.

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#### General Plan Update

Operation of new land uses, consistent with the land use plan of the project, would generate new sources of criteria air pollutants and TACs.

#### *CO Hotspot*

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. At the time of the 1993 SCAQMD Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SCAQMD was designated in attainment for CO under both the California AAQS and National AAQS.<sup>9</sup> Furthermore, under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2011). Buildout of the General Plan Update would not produce the volume of traffic required to generate a CO hotspot. Therefore, impacts from CO hotspots are considered less than significant.

#### *Localized Significance Thresholds*

SCAQMD consider projects that cause or contribute to an exceedance of the California or National AAQS to result in significant impacts. Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with future development projects. Due to the scale of development activity associated with theoretical buildout of the project, emissions could exceed the SCAQMD regional significance thresholds and therefore, in accordance with the SCAQMD methodology, may result in significant localized impacts. Air quality emissions would be addressed on a project-by-project basis. For this broad-based General Plan Update, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of localized emissions thresholds; and therefore contribute to health impacts. Nevertheless, because of the likely scale of future development that would be accommodated by the project, at least some projects would likely exceed the AAQS and associated health-based impacts including worsening of bronchitis, asthma, emphysema, decrease in lung function, premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms.

#### *Toxic Air Contaminants*

Operation of new land uses, consistent with the project, could also generate new sources of TACs within the City of Los Alamitos and SOI from various industrial and commercial processes (e.g., manufacturing, dry cleaning). Stationary sources used as emergency power supply to communication equipment could also

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<sup>9</sup> As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide, peak carbon monoxide concentrations in the SoCAB were the result of unusual meteorological and topographical conditions and not of congestion at a particular intersection.

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generate new sources of TACs and particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and UFP). Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses, such as chemical processing facilities, dry cleaners, and gasoline-dispensing facilities. In the City of Los Alamitos, operators of certain types of facilities must submit emissions inventories. The Air Toxics Program categorizes each facility as being high, intermediate, and low priority based on the potency, toxicity, quantity, and volume of its emissions. If the risks are above established levels, facilities are required to notify surrounding populations and to develop and implement a risk reduction plan.

In addition to stationary/area sources of TACs, truck operations could generate a substantial amount of diesel particulate matter emissions from off-road equipment use and truck idling. New land uses in the City of Los Alamitos that generate trucks trips (including trucks with transport refrigeration units) could generate an increase in DPM that would contribute to cancer and noncancer health risk in the SoCAB. These new land uses could be near existing sensitive receptors within the City of Los Alamitos and Rossmoor.

Stationary sources of emissions would be controlled by SCAQMD through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under SCAQMD's New Source Review, as described above. Because the nature of those emissions cannot be determined at this time and they are subject to further regulation and permitting, they will not be addressed further in this analysis but are considered a potentially significant impact of the project.

Implementation of the following project policy would ensure coordination with SCAQMD to improve air quality in Los Alamitos and Rossmoor at stationary and area sources.

#### ***Open Space, Recreation, and Conservation Element:***

- **Policy 4.3 Regional air quality** - Support regional efforts to reduce particulate matter and collaborate with other agencies to improve air quality at the emission source.

However, operation of new sources of emissions near existing or planned sensitive receptors is considered a potentially significant impact of the project.

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**Impact 5.2-5: Placement of new sensitive receptors near major sources of toxic air contaminants in the City of Los Alamitos and Rossmoor could expose people to substantial pollutant concentrations. [Threshold AQ-4]**

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***Impact Analysis:*** The following describes potential impacts of TACs on new sensitive receptors in the City of Los Alamitos and Rossmoor from implementation of the project.

#### **General Plan Update**

Because placement of sensitive land uses falls outside CARB jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources.



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Table 5.2-10, *CARB Recommendations for Siting New Sensitive Land Uses*, shows a summary of CARB recommendations for siting new sensitive land uses within the vicinity of air-pollutant-generating sources. Recommendations in Table 5.2-10 are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

**Table 5.2-10 CARB Recommendations for Siting New Sensitive Land Uses**

| Source Category                      | Advisory Recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Freeways and High-Traffic Roads      | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.</li> </ul>                                                                                                                                                                                                                                                                                       |
| Distribution Centers                 | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week).</li> <li>Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.</li> </ul> |
| Rail Yards                           | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.</li> <li>Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.</li> </ul>                                                                                                                                                                                                                                    |
| Ports                                | <ul style="list-style-type: none"> <li>Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.</li> </ul>                                                                                                                                                                                                                                                 |
| Refineries                           | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.</li> </ul>                                                                                                                                                                                                                                                             |
| Chrome Platers                       | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                       |
| Dry Cleaners Using Perchloroethylene | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district.</li> <li>Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.</li> </ul>                                                                                               |
| Gasoline Dispensing Facilities       | <ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.</li> </ul>                                                                                                                                                                                                     |
| Source: CARB 2005.                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

CARB's recommendations were based on a compilation of studies that evaluated data on the adverse health effects ensuing from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: diesel PM from trucks and benzene and 1,3 butadiene from passenger vehicles. Potential sources of TACs in the City of Los Alamitos and Rossmoor include stationary sources permitted by SCAQMD, located primarily in the northeastern portion of the City, and I-605 and I-405, which have more than 100,000 average daily traffic volumes and are within 1,000 feet of sensitive land uses in the City of Los Alamitos and Rossmoor.

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Other near roadway pollutants include ultrafine particulates (UFPs), which are toxic and have health impacts. UFPs are emitted from almost every fuel combustion process, including diesel, gasoline, and jet engines, as well as external combustion processes such as wood burning. Consequently, there is growing concern that people living in close proximity to highly trafficked roadways and other sources of combustion-related pollutants (e.g., airports and rail yards) may be exposed to significant levels of UFPs and other air toxics. However, UFPs are not specifically regulated since EPA or CARB have yet to adopt AAQS for these particulates (SCAQMD 2013).

Implementation of the following project policy would ensure that review of air quality compatibility would be conducted when siting receptors near major sources.

#### *Open Space, Recreation, and Conservation Element:*

- **Policy 4.2 Sensitive Land Uses** - Discourage the future siting of sensitive land uses within the distances defined by the California Air Resources Board without sufficient mitigation.

However, placement of sensitive receptors proximate to the sources above is considered a potentially significant impact of the project.

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**Impact 5.2-6: Industrial land uses associated with the project could create objectionable odors. [Threshold AQ-5]**

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**Impact Analysis:** The following describes potential odor impacts in the City of Los Alamitos and SOI from the implementation of the project.

#### **General Plan Update**

Growth in the City of Los Alamitos and Rossmoor could generate new sources of odors and place sensitive receptors near existing sources of odors. Nuisance odors from land uses in the SoCAB are regulated under SCAQMD Rule 402, Nuisance. Major sources of odors include wastewater treatment plants, chemical manufacturing facilities, food processing facilities, agricultural operations, and waste facilities (e.g., landfills, transfer stations, compost facilities).

There are two types of odor impacts: 1) siting sensitive receptors near nuisance odors, and 2) siting new sources of nuisance odors near sensitive receptors. The project designates residential areas and industrial areas of the City and SOI to prevent potential mixing of incompatible land use types.

- Future non-industrial development would involve minor odor-generating activities, such as lawn mower exhaust and application of exterior paints for building improvement. It should be noted that while restaurants can generate odors, they are typically not considered nuisance odors, since they typically do not generate significant odors that affect a substantial number of people.
- Industrial uses, including food processing facilities and waste transfer stations, have the potential to generate substantial odors. Individual projects associated with the project, including commercial, industrial, and office, are also required to comply with SCAQMD's Rule 402 to prevent public nuisances.

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While these odors would need to be controlled, additional measures may be warranted to prevent a nuisance, depending on the nature of the proposed use. Consequently, industrial land uses associated with the buildout of the project may generate odors that affect a substantial number of people.

- Construction activities would require the operation of equipment that would generate exhaust from either gasoline or diesel fuel. Construction and development would also require the application of paints and the paving of roads, which could generate odors. These types and concentrations of odors are typical of developments and are not considered significant air quality impacts.

SCAQMD Rule 402, Nuisance, requires abatement of any nuisance generated by an odor complaint. Because existing sources of odors are required to comply with SCAQMD's Rule 402, impacts to siting of new sensitive land uses would be less than significant.

Future environmental review could be required for industrial projects listed in Rule 402 to ensure that sensitive land uses are not exposed to nuisance odors. SCAQMD Rule 402 requires abatement of any nuisance generating an odor complaint. Typical abatement includes passing air through a drying agent followed by two successive beds of activated carbon to generate odor-free air. Facilities listed in Rule 402 would need to consider measures to reduce odors as part of their CEQA review. Odor impacts could be significant for new projects that have the potential to generate odors within the odor screening distances.

### 5.2.4 Applicable General Plan Policies

The following are relevant policies of the General Plan Update that are designed to reduce criteria air pollutant emissions impacts of in the City that would be accommodated by the General Plan Update.

#### Land Use Element

- **Policy 1.4 Vertical mixed-use** - Encourage development that provides retail on the ground floor and office, hotel, or residential uses on upper floors in the town center along Los Alamitos Boulevard.
- **Policy 2.2 Mix of land uses** - Maintain a balanced mix of residential, retail, employment, industrial, open space, and public facility land uses.

#### Open Space, Recreation, and Conservation Element

- **Policy 2.2 Connectivity and image** - Improve existing and establish new trails along flood control facilities to link neighborhoods and public uses, augment local and regional bicycle systems, enhance the City's image, and attract recreational cyclists and other visitors to the town center.
- **Policy 4.1 Land use and transportation** - Reduce greenhouse gas and other local pollutant emissions through mixed-use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.

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- **Policy 4.2 Sensitive Land Uses** - Discourage the future siting of sensitive land uses within the distances defined by the California Air Resources Board without sufficient mitigation.
- **Policy 4.3 Regional air quality** - Support regional efforts to reduce particulate matter and collaborate with other agencies to improve air quality at the emission source.
- **Policy 4.4 Low and zero emission vehicles** - Support development of private and public parking infrastructure facilitating the use of alternative fuel vehicles.
- **Policy 4.5 Energy and water conservation** - Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.
- **Policy 4.9 Renewable Energy** - Promote the use of renewable energy sources to serve public and private sector development.

### Mobility and Circulation Element

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.
- **Policy 1.3 Downtown connectivity** - Downtown Los Alamitos shall be safely and comfortably accessible by car, by bike, or on foot while maintaining Los Alamitos Boulevard as a four-lane facility with sufficient space for turning movements and queuing space for school access.
- **Policy 1.5 Multimodal LOS** - Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.
- **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.
- **Policy 3.2 Active trips** - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.
- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.
- **Policy 4.1 Walkable business districts** - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business corridors.

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- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.
- **Policy 4.3 Intersections** - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.
- **Policy 4.4 Bicycle and pedestrian trails** - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.
- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.
- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.
- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.
- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.
- **Policy 5.5 Automobile parking demand** - Reduce automobile parking demand by improving public transit, bicycle, and pedestrian mobility.
- **Policy 5.1 Parking tools** - Support innovative parking techniques to maximize parking efficiency throughout the City, especially in the Downtown, including:
  - Shared parking
  - Unbundled parking
  - In-lieu parking fees
  - Parking management plans
  - Parking districts
- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.
- **Policy 5.7 Motorcycle and scooter parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.

### Housing Element

- **Policy Action 1.2:** Single-Family Rehabilitation Loan Program
- **Policy Action 2.3:** Energy Conservation

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- **Policy Action 2.4:** Green Building Program
- **Policy Action 4.4:** Review and Revise Multi-Family Parking Requirements

## 5.2.5 Existing Regulations and Standard Conditions

### 5.2.5.1 STATE

- Clean Car Standards – Pavely (AB 1493)
- California Advanced Clean Cars CARB (Title 13 CCR)
- Low-Emission Vehicle Program – LEV III (Title 13 CCR)
- Statewide Retail Provider Emissions Performance Standards (SB 1368).
- Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools (13 CCR 2480)
- Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling (13 CCR 2485)
- In-Use Off-Road Diesel Idling Restriction (13 CCR 2449)
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

### 5.2.5.2 SCAQMD

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD Rule 1186: Street Sweeping

## 5.2.6 Level of Significance Before Mitigation

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.2-1** Buildout of the project would generate slightly more growth than the existing General Plan; and therefore, the project would be inconsistent with SCAQMD's air quality management plans.
- **Impact 5.2-2** Construction activities associated with the project would generate a substantial increase short-term criteria air pollutant emissions that exceed the threshold criteria and would cumulative contribute to the nonattainment designations of the SoCAB.

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- **Impact 5.2-3** Long-term operation of the project would generate a substantial increase in criteria air pollutant emissions that exceed the threshold criteria and would cumulatively contribute to the nonattainment designations of the SoCAB.
- **Impact 5.2-4** Buildout of the project could result in new source sources of criteria air pollutant emissions and/or toxic air contaminants proximate to existing or planned sensitive receptors.
- **Impact 5.2-5** Placement of new sensitive receptors near major sources of toxic air contaminants in the City of Los Alamitos and Rossmoor could expose people to substantial pollutant concentrations.
- **Impact 5.2-6** Industrial land uses associated with the project could create objectionable odors.

### 5.2.7 Mitigation Measures

#### Impact 5.2-1

Mitigation measures incorporated into future development projects and adherence to the project policies for operation and construction phases described under Impacts 5.2-2 and 5.2-3 below would reduce criteria air pollutant emissions associated with buildout of the project. Goals and policies in the project would facilitate continued City participation/cooperation with SCAQMD and SCAG to achieve regional air quality improvement goals, promote energy conservation design and development techniques, encourage alternative transportation modes, and implement transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the air quality management plans due to the magnitude of growth and associated emissions that would be generated by the buildout of the City of Los Alamitos and SOI in accordance with the project.

#### Impact 5.2-2

2-1 If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the South Coast Air Quality Management District (SCAQMD) adopted thresholds of significance, the City of Los Alamitos shall require that applicants for new development projects incorporate mitigation measures as identified in the CEQA document prepared for the project to reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include but are not limited to:

- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.



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- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Water all active construction areas at least three times daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.
- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).
- Pave, apply water three times daily or as often as necessary to control dust, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas, and staging areas at the construction site to control dust.
- Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the project site, or as often as needed, to keep streets free of visible soil material.
- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.
- Enclose, cover, water three times daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).

#### Impact 5.2-3

Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by the buildout of residential, office, commercial, industrial, and warehousing land uses in the City of Los Alamitos and Rossmoor, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds.

#### Impact 5.2-4

2-2

New industrial or warehousing land uses that: 1) have the potential to generate 40 or more diesel trucks per day and 2) are located within 1,000 feet of a sensitive land use (e.g. residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Los Alamitos prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the applicable air quality management district. If the HRA shows that the incremental cancer risk exceeds ten in one million

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(10E-06), particulate matter concentrations would exceed  $2.5 \mu\text{g}/\text{m}^3$ , or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project.

#### Impact 5.2-5

2-3 Applicants for sensitive land uses within the following distances as measured from the property line of the project to the property line of the source/edge of the nearest travel lane, from these facilities:

- Industrial facilities within 1000 feet
- Distribution centers (40 or more trucks per day) within 1,000 feet
- High volume roadways (100,000 or more vehicles per day) within 1,000 feet
- Dry cleaners using perchloroethylene within 500 feet
- Gasoline dispensing facilities within 300 feet

Applicants shall submit a health risk assessment (HRA) to the City of Los Alamitos prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the applicable air quality management district. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 6 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- Air intakes located away from high volume roadways and/or truck loading zones, unless it can be demonstrated to the City of Los Alamitos that there are operational limitations.
- Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters.
- Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the project. The air intake design and MERV filter requirements shall be

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noted and/or reflected on all building plans submitted to the City and shall be verified by the City of Los Alamitos.

#### Impact 5.2-6

2-4 If it is determined during project-level environmental review that a project has the potential to emit nuisance odors beyond the property line, an odor management plan may be required, subject to City's regulations. Facilities that have the potential to generate nuisance odors include but are not limited to:

- Wastewater treatment plants
- Composting, greenwaste, or recycling facilities
- Fiberglass manufacturing facilities
- Painting/coating operations
- Large-capacity coffee roasters
- Food-processing facilities

If an odor management plan is determined to be required through CEQA review, the City of Los Alamitos shall require the project applicant to submit the plan prior to approval to ensure compliance with the applicable Air Quality Management District's Rule 402, for nuisance odors. If applicable, the Odor Management Plan shall identify the Best Available Control Technologies for Toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, scrubbers (e.g., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

#### 5.2.8 Level of Significance After Mitigation

##### Impact 5.2-1

Buildout of the General Plan Update would generate less population but more employment and slightly more VMT than the Current General Plan; therefore, the project would be inconsistent with SCAQMD's 2012 AQMP. Mitigation measures incorporated into future development projects and adherence to the project policies for operation and construction phases described in Impacts 5.2-2 and 5.2-3 above would reduce criteria air pollutant emissions associated with buildout of the project. Goals and policies included in the project would facilitate continued City participation/cooperation with SCAQMD and SCAG to achieve regional air quality improvement goals, promote energy conservation design and development techniques, encourage alternative transportation modes, and implement transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the air quality management plans due to the magnitude of growth and associated emissions that would be generated by the buildout of the City of Los Alamitos and Rossmoor in accordance with the project. Impact 5.2-1 would remain Significant and Unavoidable.

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#### Impact 5.2-2

Construction activities associated with the buildout of the project would generate criteria air pollutant emissions that would exceed SCAQMD's regional significance thresholds and would contribute to the nonattainment designations of the SoCAB and contribute to known health effects from poor air quality including, worsening of bronchitis, asthma, and emphysema a decrease in lung function, premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by future construction activities associated with the buildout of the project, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Impact 5.2-2 would remain Significant and Unavoidable.

#### Impact 5.2-3

Buildout of the proposed land use plan would generate additional vehicle trips and area sources of criteria air pollutant emissions that exceed SCAQMD's regional significance thresholds and would contribute to the nonattainment designations of the SoCAB and contribute to known health effects from poor air quality including, worsening of bronchitis, asthma, and emphysema a decrease in lung function, premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by the buildout of the project, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Impact 5.2-3 would remain Significant and Unavoidable.

#### Impact 5.2-4

Buildout of the project could result in new sources of criteria air pollutant emissions and/or toxic air contaminants near existing or planned sensitive receptors. Goals and policies are included in the project that would reduce concentrations of criteria air pollutant emissions and TACs generated by new development.

Review of projects by SCAQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure health risks are minimized. Mitigation Measure 3-2 would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review. Development of individual projects would be required to achieve the incremental risk thresholds established by SCAQMD, and TACs would be less than significant.

However, localized emissions of criteria air pollutants could exceed the SCAQMD significance thresholds because of the scale of development activity associated with buildout of the project. For this broad-based General Plan Update, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of the localized emissions thresholds and contribute to known health effects including worsening of bronchitis, asthma, and emphysema a decrease in lung function, premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Therefore, in accordance with the SCAQMD methodology, Impact 5.2-4 would remain Significant and Unavoidable.

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#### Impact 5.2-5

Placement of new sensitive receptors within the City of Los Alamitos and Rossmoor near major sources of TACs could expose people to substantial pollutant concentrations. Goals and policies are included in the project that would reduce concentrations of criteria air pollutant emissions and air toxics generated by new development. Mitigation Measure 3-3 would ensure that placement of sensitive receptors near major sources of air pollution would achieve the incremental risk thresholds established by SCAQMD, and Impact 5.2-5 would be less than significant.

#### Impact 5.2-6

Mitigation Measure 3-4 would ensure that odor impacts are minimized and facilities would comply with SCAQMD Rule 402. Impact 5.2-6 would be less than significant.

### 5.2.9 References

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### 5.3 CULTURAL RESOURCES

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Los Alamitos General Plan Update to impact cultural resources in the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmoor. The analysis in this section is based, in part, on the following information:

- *Paleontological and Cultural Resources Assessment*, Cogstone, December 2013

A complete copy of this study is included as Appendix D to this DEIR.

#### 5.3.1 Environmental Setting

##### 5.3.1.1 REGULATORY BACKGROUND

Federal and state regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

#### Federal Regulations

##### *National Historic Preservation Act*

The National Historic Preservation Act (NHPA) of 1966 is the primary federal law governing the preservation of cultural and historic resources in the United States. The law establishes a national preservation program and a system of procedural protections that encourage the identification and protection of cultural and historic resources of national, state, tribal, and local significance. Primary components of the NHPA include:

- Articulation of a national policy governing the protection of historic and cultural resources.
- Establishment of a comprehensive program for identifying historic and cultural resources for listing in the National Register of Historic Places.
- Creation of a federal-state/tribal-local partnership for implementing programs established by the act.
- Requirement that under Section 106 (Protection of Historic Properties) of the NHPA, federal agencies take into consideration actions that could adversely affect historic properties listed or eligible for listing on the National Register of Historic Places, known as the Section 106 Review Process.<sup>1</sup>

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<sup>1</sup> Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process, with assistance from State Historic Preservation Offices.



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### CULTURAL RESOURCES

- Establishment of the Advisory Council on Historic Preservation, which oversees federal agency responsibilities governing the Section 106 Review Process.
- Placement of specific stewardship responsibilities on federal agencies for historic properties owned or within their control (Section 110 of the NHPA).

#### *National Register of Historic Places*

The National Register of Historic Places (NRHP) is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture. The NRHP recognizes resources of local, state, and national significance that have been documented and evaluated according to uniform standards and criteria. Authorized under the NHPA, the NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. The NRHP is administered by the National Park Service, which is part of the U. S. Department of the Interior.

To be eligible for listing in the NRHP, a resource must meet at least one of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of our history.
- Is associated with the lives of persons significant in our past.
- Embodies the distinctive characteristics of a type, period or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- Has yielded, or may be likely to yield, information important in history or prehistory.

#### *Archaeological Resources Protection Act*

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites that are on federal and Indian lands.

#### *Native American Graves Protection and Repatriation Act*

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants and culturally affiliated Indian tribes.

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### State Regulations

#### *California Public Resources Code*

Archaeological, paleontological, and historical sites are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code. In addition, cultural and paleontological resources are recognized as nonrenewable and therefore receive protection under the California Public Resources Code and CEQA.

- California Public Resources Code 5020–5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.
- California Public Resources Code 5079–5079.65 defines the functions and duties of the Office of Historic Preservation (OHP). OHP is responsible for the administration of federally and state-mandated historic preservation programs in California and the California Heritage Fund.
- California Public Resources Code 5097.9–5097.991 provides protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification to descendants of discoveries of Native American human remains descendants and provides for treatment and disposition of human remains and associated grave goods.

#### *California Register of Historic Resources*

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The California Register of Historic Resources (CRHR) is the authoritative guide to the state's significant historical and archeological resources. It encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA.

To be eligible for listing in the CRHR, a resource must meet at least one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- Associated with the lives of persons important to local, California or national history.
- Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.

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- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR, if, under the fourth criterion, it maintains the potential to yield significant scientific or historical information or specific data.

#### *California Historical Landmarks*

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance. The resource must be approved for designation by the County Board of Supervisors or the City/Town Council in whose jurisdiction it is located; be recommended by the State Historical Resources Commission; and be officially designated by the Director of California State Parks. A resource must meet at least one of these following criteria:

- Be the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Be associated with an individual or group having a profound influence on the history of California.
- Be a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is 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 designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical resource may be designated as both a landmark and a point. If a point is subsequently granted status as a landmark, the point designation is retired.

To be eligible for designation as a Point of Historical Interest, 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).

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- 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 is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer or master builder.

#### *California Senate Bill 18*

Senate Bill (SB) 18, the Traditional Tribal Cultural Places (TTCPs) law, requires local jurisdictions to provide opportunities for involving Native American Heritage Commission (NAHC) and any appropriate California Native Americans tribes in the land planning process for the purpose of preserving TTCPs. A city or county, when proposing to adopt, amend, revise, or update a general plan or specific plan, must send a written request to NAHC asking for a list of tribes to consult. NAHC is required to provide this list within 30 days of receiving the request. The city or county must send a Tribal Consultation Request letter to each tribal representative on the list; tribes then have 90 days in which to respond to the consultation request if they want to consult with the local government to determine whether the project would have an adverse impact on a TTCP. There is no statutory limit on the consultation duration. Forty-five days before the action is publicly considered by the local government (i.e., the CEQA lead agency), the environmental document is forwarded to agencies for review in accordance with the CEQA public review time frame. The CEQA public distribution list may include tribes listed by NAHC who have requested consultation or it may not. If the NAHC, tribe, and interested parties agree upon the mitigation measures necessary for the project, they would be included in the project's EIR. If both the City and tribe agree that adequate mitigation or preservation measures cannot be taken, then neither party is obligated to take action.

In addition, SB 18 provides a new definition of TTCP requiring a traditional association of the site with Native American traditional beliefs, cultural practices, or ceremonies or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. Previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities. In addition, SB 18 also amended California Civil Code Section 815.3 and adds California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

#### *2010 California Historic Building Code*

The 2010 California Historic Building Code—California Code of Regulations, Title 24, Part 8—provides regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or properties designated as qualified historical buildings or properties. The California Historic Building Code is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users.

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#### *Mills Act*

Under the Mills Act, California Government Code Sections 50280 et seq., a city or county may contract with the owner of any qualified historical property to restrict the use of the property.

#### 5.3.1.2 EXISTING SETTING

##### Natural Geologic Setting

The City is situated in the northern Peninsular Ranges Geomorphic Province. This province comprises a series of mountain ranges separated by northwest-trending valleys paralleling faults that branch off from the San Andreas Fault to the east. The Peninsular Ranges Geomorphic Province is in the southwestern corner of California and is bounded by the Transverse Range Geomorphic Province to the north and the Transverse Range and Colorado Desert to the east. The City is mapped entirely as young Quaternary alluvium; these deposits consist of unconsolidated to slightly consolidated, undissected to slightly dissected boulder, cobble, gravel, sand, and silt. The Quaternary alluvium formation is typically underlain by older Quaternary deposits, which are similar to the younger deposits, consisting of slightly to moderately consolidated moderately dissected boulder, cobble, gravel, sand and silt deposited during the Pleistocene epoch (Cogstone 2014).

##### Cultural Setting

##### *Ethnographic Setting*

Heading the procession of the settlement of present-day California are Native Americans, who adapted to California's many climates and developed many trades and tools. Early Native American peoples of the area encompassing the City and its surroundings are poorly understood. They were replaced approximately 3,500 years ago by Native Americans now known as the Tongva (or Gabrielino<sup>2</sup>), whose traditional territory (which included the area encompassing the City and its surroundings) included most of the San Fernando Valley and the Los Angeles Basin, inland as far as the City of San Bernardino, and outwards to the Pacific coast stretching from Topanga Canyon to north of Aliso Creek. Also included in Tongva territory are the southern Channel Islands of San Clemente, Santa Catalina, and San Nicolas. At the time of Spanish contact, the Tongva were, with the possible exception of the Chumash, the wealthiest, most populous, and most powerful ethnic aboriginal group in Southern California.

Other Native Americans, now known as the Juaneño (Acjachemen), moved into southern Orange County and are likely to have also used the area encompassing the City and its surroundings at some point after the Tongva. Material culture was very similar between the Tongva and Juaneño, but the Juaneño were known to produce Tizon brownware ceramics, which might differentiate sites (Cogstone 2014).

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<sup>2</sup> The term Gabrielino is a reference to the direct association between the Native American population of the San Gabriel Valley and the Mission San Gabriel Arcangel.

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#### *Historic Setting*

##### *Los Alamitos*

Los Alamitos' historic setting includes Spanish colonization by missionaries (which included missions, presidios, and pueblos), the region's subdivision into Mexican land grants (or "ranchos"), transfer of California to the United States, and eventual settlement by American farmers. The City lies within the boundaries of the Rancho Los Alamitos, which was originally part of the Rancho Los Nietos given to Manuel Nieto, a retired Spanish soldier, in 1784. This land grant was one of the first and largest Spanish land concessions created by Mexican governor Pedro Fages. It included all the land between the San Gabriel and Santa Ana rivers, from the foothills to the sea. After Nieto's death in 1804, the large rancho was divided into five ranchos. Manuel's son—Juan Jose Nieto—received the Rancho Los Alamitos portion, which consisted of 28,027 acres.

In 1842, a Yankee who had become a Mexican citizen and married into a California family (Arcadia Bandini) named Abel Stearns purchased the Rancho Los Alamitos. He used the ranch for raising cattle and refurbished the ranch house as a summer home for his wife. When the United States took possession of California in 1848, Abel Stearns was awarded the title to Rancho Los Alamitos in 1850 by the Board of Land Commissioners and the United States District Court; however, he lost the ranch through foreclosure in the early 1860s. A San Francisco moneylender named Michael Reese acquired the rancho in 1878, and it was eventually purchased by John W. Bixby from the Reese heirs. After John Bixby's death in 1887, his wife, Susanna Patterson Hathaway Bixby, leased the ranch. By 1897, the Bixby Land Company had gridded the town of Los Alamitos, offering 500 lots for sale. Various business establishments soon set up shop along Main Street, and some "factory" houses were constructed for workers of the beet sugar factory.

At the turn of the twentieth century, the Los Alamitos area was rural in character. The Los Alamitos Ranch continued to blanket the future town site with grazing cattle and sheep, owned and managed by Fred H. Bixby beginning in 1906. Once the sugar factory closed in 1926, businesses moved out of Main Street and within a few years were settling on Los Alamitos Boulevard, with the advent of automobiles, a paved road, and the establishment of Dr. Ross's dog food factory in the sugar factory building. As other kinds of development took place in the area, Los Alamitos lost land "through partition, condemnation, and subdivision." By 1966, only 7.5 acres remained of this ranch.

For a detailed description of Los Alamitos' distant and recent history, refer to the Paleontological and Cultural Resources report prepared by Cogstone, included as Appendix D.

##### *Rossmoor*

In the 1940s, only a few houses were in the Rossmoor area. Rossmoor was established between 1956 and 1961 by developer Ross W. Cortese, who designed it as an exclusive, planned, unincorporated community within Orange County. The community includes 3,445 single-family units and two multi-family complexes, six schools, a medical facility, and two shopping centers (Cogstone 2014).

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#### *Los Alamitos Joint Forces Training Base*

The Los Alamitos Joint Air Force Training Bases (JFTB), which has played an important role in the economic and social life of Los Alamitos, has changed its size, name (e.g. Naval Reserve Air Base, Los Alamitos Army Airfield), and function since the land was first purchased from Susanna Bixby Bryant in 1940 before World War II. But it has always contributed in important ways to local, regional, and national events, wars, natural disasters, and more. By 1942, Los Alamitos JFTB was used as a training station for aviation cadets and had a regular staff of some 2,500 officers and men. The airfield was expanded in 1943 to accommodate its increasing wartime use. By 1945, Los Alamitos “had become one of the Navy’s most important air stations.” (Cogstone 2013).

Following World War II, the base became the Navy’s largest training station for reservists and was also responsible for servicing the fleet. It was used during the Korean War for training pilots and for mobilizing personnel, supplies, and equipment. During the floods of 1951, personnel from the base assisted in rescue of flood victims and in saving property. During the 1970s, it became an Armed Forces Reserve Center, as well as a facility for the California National Guard, and began to house helicopters for both groups.

In the intervening decades, the base has hosted Air Force One, the United States Marine Corps (USMC) presidential helicopter, National Air and Space Administration (NASA) mission efforts, and has supported Gulf War, Panama, and Bosnia military deployments, as well as assembly of personnel and supplies for local events such as the Los Angeles riots, major earthquake relief efforts, the Olympics, and emergency preparedness training (Cogstone 2014).

### Cultural Resources

Information on known fossil localities for the entire City, its SOI, and the immediately adjacent areas was obtained from the Natural History Museum of Los Angeles County and online record searches of the University of California, Berkeley, paleontology database and the Paleobiology Database. Additionally, a records search for archaeological and historical records was completed for the entire City, its SOI, and the immediately adjacent areas at the South Central Coastal Information Center (SCCIC) of the California Historic Resources Inventory System (CHRIS). A variety of other sources were also consulted to obtain additional cultural resources information regarding the City and Rossmoor, including other archaeological studies conducted within parts of the City and Rossmoor; NRHP; CRHR; California Historical Resources Inventory; California Historical Landmarks; California Points of Historical Interest; historic United States Geological Survey topographic maps; local historical register listings; and Bureau of Land Management General Land Office Records. Following is a discussion of the cultural resources finds of the various records search conducted as a part of the Paleontological and Cultural Resources Assessment.

#### *Paleontological Resources*

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. There are two types of resources: vertebrate and invertebrate. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological sites are

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areas that show evidence of prehuman activity. Often they are simply small outcroppings visible on the surface or sites encountered during grading. While the sites are important indications, it is the geologic formations that are the most important, since they may contain important fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation.

No vertebrate fossil localities lie within the City or its SOI. However, although no known or significant paleontological resources have been discovered within the boundaries of the City or its SOI, fossil remains may be present, although the area of their distribution is not known. The potential for fossil occurrence depends on the soil and rock type exposed at the surface in a given area. Surface sediments within the City and its SOI consist of younger terrestrial Quaternary alluvium, with older Quaternary sediments at various depths with fluvial deposits from the Los Angeles, San Gabriel, and Santa Ana Rivers. The uppermost layers of the younger Quaternary deposits typically do not contain significant vertebrate fossils; however, the older Quaternary deposits are known to bear significant vertebrate fossils. Additionally, fossil vertebrate localities in proximity to the City and its SOI from the older Quaternary deposits have produced specimens including rays, sharks, bony fish, turtle, birds, sea otter, camels, dog, gopher, horse, and mammoth (Cogstone 2014).

#### *Archeological Resources*

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic. Archaeological sites contain significant evidence of human activity. Generally a site is defined by a significant accumulation or presence of: food remains, waste from the manufacturing of tools, tools, concentrations or alignments of stones, modification of rock surfaces, unusual discoloration or accumulation of soil, and/or human skeletal remains.

Based on the archeological records search, no known or significant archeological resources have been discovered within the boundaries of the City or its SOI. However, archeological remains may occur throughout the City and its SOI, although the area of their distribution is not known. Additionally, as shown in Table 5.3-1, *Recorded Prehistoric Archeological Sites near Los Alamitos*, six prehistoric shell midden<sup>3</sup> sites are close to the City and Rossmoor.

**Table 5.3-1 Recorded Prehistoric Archeological Sites near Los Alamitos**

| Reference   | Site Type                | Date           | Distance from City and its SOI |
|-------------|--------------------------|----------------|--------------------------------|
| P-30-001352 | Prehistoric Shell Midden | Not Determined | One-half mile                  |
| P-30-001505 | Prehistoric Shell Midden | 1999           | Adjacent to City and its SOI   |
| P-30-001568 | Prehistoric Shell Midden | 2000           | One-quarter mile               |
| P-30-001570 | Prehistoric Shell Midden | 2000           | One-half mile                  |
| P-30-001571 | Prehistoric Shell Midden | 2000           | One-half mile                  |
| P-30-001572 | Prehistoric Shell Midden | 2000           | One-quarter mile               |

Source: Cogstone 2014.

<sup>3</sup> A shell midden or shell mound is an archaeological feature consisting mainly of mollusk shells. A midden, by definition, contains the debris of human activity. Some shell middens are processing remains: areas where aquatic resources were processed directly after harvest and prior to use or storage in a distant location. Others are directly associated with villages or a house in the village, as a designated dump site (Wikipedia 2014).



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#### *Historical Resources*

Historical resources are buildings, structures, objects, sites, and districts of significance in history, archaeology, architecture, and culture. These resources include intact structures of any type that are 50 years or more of age. They are sometimes called the built environment and can include, in addition to houses, structures such as irrigation works and engineering features. Historical resources are preserved because they provide a link to a region's past and a frame of reference for a community.

#### *California Historic Resources*

Based on the records search completed at the SCCIC of CHRIS, there are two state-listed historic resources within the City limits and one state-listed historic building proximate to Los Alamitos (see Table 5.3-2, *State Listed Historic Sites near Los Alamitos*). Both the resources within the City limits are within the Los Alamitos JFTB; none of these resources are listed as eligible for the NRHP.

**Table 5.3-2 State-Listed Historic Sites near Los Alamitos**

| Reference   | Site Type                                                      | Date | Distance from City and its SOI                  |
|-------------|----------------------------------------------------------------|------|-------------------------------------------------|
| P-30-176752 | Historic Parasol Restaurant                                    | 2004 | One-quarter mile                                |
| P-30-146854 | Historic Navy Golf Course                                      | 1998 | Within the City limits (Los Alamitos JFTB site) |
| P-30-179863 | Historic U.S.S. Los Angeles Heavy Cruiser Model at Golf Course | 1998 | Within the City limits (Los Alamitos JFTB site) |

Source: Cogstone 2014.

Based on CHRIS, 30 state historic buildings were identified within the City limits, all within the northwestern portion of the Los Alamitos JFTB (see Table 5.3-3, *State Listed Historic Buildings near Los Alamitos*). All of the buildings were constructed between 1941 and 1946. The California State Historic Preservation Officer (SHPO) has determined that all 30 buildings are ineligible for listing (Status code 6Z) on the NRHP.

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**Table 5.3-3 State-Listed Historic Buildings near Los Alamitos**

| Historic Resources No. | Street           | Property Name        |
|------------------------|------------------|----------------------|
| 170438                 | Farquhar Ave     | Naval Air Station HQ |
| 170440                 | Doolittle Ave    | Building 1           |
| 170441                 | Doolittle Ave    | Building 2           |
| 170442                 | Constitution Ave | Building 09          |
| 170443                 | Doolittle Ave    | Building 37          |
| 170444                 | Doolittle Ave    | Building 79          |
| 170445                 | Constitution Ave | Building 03          |
| 170446                 | Minuteman Circle | Building 28          |
| 170447                 | Constitution Ave | Building 10          |
| 170448                 | Constitution Ave | Building 11          |
| 170449                 | Constitution Ave | Building 34          |
| 170451                 | Constitution Ave | Building 35          |
| 170452                 | Constitution Ave | Building 4           |
| 170453                 | Liberty Ave      | Building 5           |
| 170455                 | Yorktown Ave     | Building 06          |
| 170456                 | Constitution Ave | Building 25          |
| 170457                 | Yorktown Ave     | Building 25          |
| 170458                 | Valley Forge Dr  | Building 44          |
| 170459                 | Valley Forge Dr  | Building 57          |
| 170461                 | Valley Forge Dr  | Building 104/Pool    |
| 170462                 | Yorktown Ave     | Building 15          |
| 170463                 | Yorktown Ave     | Building 16          |
| 170464                 | Yorktown Ave     | Building 17          |
| 170466                 | Yorktown Ave     | Building 18          |
| 170467                 | Yorktown Ave     | Building 19          |
| 170468                 | Yorktown Ave     | Building 20          |
| 170469                 | Yorktown Ave     | Building 21          |
| 170471                 | Yorktown Ave     | Building 191         |
| 170472                 | Constitution Ave | Building 07          |
| 170473                 | Constitution Ave | Building 08          |

Source: Cogstone 2014.

### *Los Alamitos Local Landmarks*

As stated in Chapter 17.22 (Local Landmarks) of the City's Municipal Code, this chapter was created to assist in the identification and preservation of historic and cultural resources within the City. The guidelines outlined in this chapter are necessary in order to preserve those elements of Los Alamitos' heritage, which may now or in the future be endangered as to their very existence or in maintaining their historic or cultural integrity. However, it should be noted that the local landmark designation is not currently applied by the City to any structure within the City.

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#### *Los Alamitos Historical Society*

The Los Alamitos Historical Society maintains a list of local historical resources, many of which are or will be marked by plaques. Based on the Los Alamitos Historical Society listings, there are nine local historic resources with the City limits (see Table 5.3-4, *Local Historic Resources in Los Alamitos*).

**Table 5.3-4 Local Historic Resources in Los Alamitos**

| Historic Resource                                                            | Address                      |
|------------------------------------------------------------------------------|------------------------------|
| Historic Home built 1925                                                     | 10772 Pine Street            |
| Historic Home built                                                          | 10802 Chestnut Street        |
| Historic Home built                                                          | 10852 Pine Street            |
| Historic Home built                                                          | 10901 Chestnut Street        |
| Historic Home built                                                          | 10927 Chestnut Street        |
| Historic Home built                                                          | 10931 Chestnut Street        |
| St. Isidore Catholic Church and Historic Plaza built 1926                    | 10961 Reagan Street          |
| Historic Firehouse (currently houses Los Alamitos Historical Society Museum) | 11062 Los Alamitos Boulevard |
| Historic Home built                                                          | 3372 Florida Street          |

Source: Cogstone 2014.

### 5.3.2 Thresholds of Significance

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource shall be considered “historically significant” if it meets the criteria for listing on the California Register of Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4852), listed above in Section 5.3.1.1, *Regulatory Background*.

The fact that a resource is not listed or determined to be eligible for listing in the California Register of Historical Resources, or not included in a local register of historical resources, does not preclude a lead agency from determining it may be a historical resource.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- C-1 Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5.
- C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- C-3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- C-4 Disturb any human remains, including those interred outside of formal cemeteries.

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The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: C-4. This impact will not be addressed in the following analysis.

### 5.3.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.3-1: Future development in the City that would be accommodated by the General Plan Update could impact historic resources. [Threshold C-1]**

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**Impact Analysis:** The following describes impacts to state and local historic resources within the City and Rossmoor. There are no historic resources in the City that are eligible for listing on the National Register.

#### State-Designated Historic Resources

Based on the cultural resources records search conducted for the General Plan Update, there are two State-designated historic sites (see Table 5.3-2, *State-Listed Historic Sites near to Los Alamitos*) and 30 State-designated historic buildings (see Table 5.3-3, *State-Listed Historic Buildings near to Los Alamitos*) within the City and Rossmoor. All of these state-designated historic resources are on the Los Alamitos JFTB. The California State Historic Preservation Office has determined that the two state-designated historic sites and the 30 state-designated historic buildings are ineligible for listing (Status code 6Z) on the NRHP (Cogstone 2014). The City has no jurisdiction or land use authority on this U.S. military installation. No changes are proposed to the land use designations of the Los Alamitos JFTB under the General Plan Update, and no development is forecast to occur that would affect these state-designated historic resources. Therefore, the two state-listed historic resources and 30 state-listed historic buildings on the Los Alamitos JFTB would not be affected by implementation of the General Plan Update.

#### Local Historic Resources

Based on the Los Alamitos Historical Society listings, there are nine local historic resources with the City limits (see Table 5.3-4, *Local Historic Resources in Los Alamitos*). These may warrant special local planning consideration and may be eligible for Mills Act contracts, should the City establish a Mills Act property tax abatement program. Such a program would require the development of an ordinance establishing procedures for property owners to enter into an agreement with the City to preserve their historic properties.

Additionally, as noted above, there is not current City local landmark designation (Chapter 17.22 [Local Landmarks] of the City's Municipal Code) on any structure in the City. Therefore, no such local landmark's occur within the City.

#### Conclusion

Historical resources are protected by a wide variety of state policies and regulations enumerated under the California Public Resources Code. The Open Space, Recreation, and Conservation Element of the General

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Plan Update also has policies that specifically address sensitive known and potential historical resources and their protection, including:

#### *Open Space, Recreation, and Conservation Element*

- **Policy 3.4 National and state historic resources** – Preserve historical sites and buildings of state or national significance in accordance with the Secretary of Interior Standards for Historic Rehabilitation.
- **Policy 3.5 Local historic resources** – Encourage property owners to maintain the historic integrity of the site by (listed in order of preference): preservation, adaptive reuse, or memorialization.
- **Policy 3.6 St. Isidore** – Support the preservation and repurposing of St. Isidore Historical Plaza as a business or community facility, preserving the chapel as the key historical element.
- **Policy 3.7 Public education** – Support public education efforts for residents and visitors about the unique historic, natural, and cultural resources in Los Alamitos.

Additionally, as stated in Section 3.1, *Statement of Objectives*, of Chapter 3, *Project Description*, one of the key objectives of General Plan Update is to enhance cultural uses and historical preservation.

Known or future historic sites or resources listed in the national, California, or local registers maintained by the City would be protected through local ordinances, the General Plan Update policies, and state and federal regulations restricting alteration, relocation, and demolition of historical resources. Compliance with proposed General Plan Update policies and state and federal regulations would ensure that land use changes allowed under the General Plan Update would not result in adverse impacts to identified historic resources.

At the time a development project is proposed adjacent to or near of a known or potential historic structure or resource, the project-level CEQA document of the development project would need to identify any impacts (direct or indirect) that the project could have on the identified historic structure or resource. The CEQA Guidelines require a project that will have potentially adverse impacts on historical resources to conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties.

It is also important to note that the General Plan Update is a regulatory document that sets the framework for future growth and development of the City and does not directly result in development. Before any development or redevelopment activities can occur in the City, all such activities are required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. Therefore, adoption of the General Plan Update in itself would not lead to the demolition or material alteration of any of these historic resources.

However, identified historic structures and sites that are potentially eligible for future historic resources listing may be vulnerable to development activities accompanying infill, redevelopment, or revitalization that would be accommodated by the General Plan Update. For example, the placement of new buildings adjacent to a historic resource may result in indirect impacts relating to access, visibility, and visual context, while

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renovations or modifications to historic resources may deteriorate or destroy the characteristics that make those resources important or unusual. In addition, other buildings or structures that could meet the NRHP criteria upon reaching 50 years of age might be impacted by development or redevelopment activity that would be accommodated by the General Plan Update.

For the reasons outlined above, no significant impacts on historical resources would occur as a result of future development that would be accommodated by the General Plan Update.

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**Impact 5.3-2: Future development in the City that would be accommodated by the General Plan Update could impact known and unknown archeological and/or paleontological resources. [Thresholds C-2 and C-3]**

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**Impact Analysis:** Adoption of the General Plan Update in itself would not directly affect archaeological or paleontological resources or Native American resources. Long-term implementation of the General Plan Update land use plan could allow development (e.g., new development, infill development, redevelopment, and revitalization/restoration), including grading, of known and unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of archeological, paleontological, or Native American resources. Therefore, future development that would be accommodated by the General Plan Update could potentially unearth previously unrecorded resources. Following is a discussion of potential impacts to these resources as a result of implementation of the General Plan Update.

### Archeological and Paleontological Resources

The City is almost completely built out and is in a highly developed, urban area of Orange County; there are only three acres of vacant land in the City (see Figure 3-3, *Existing Land Use*). Based on the paleontological and archeological records search, no known or significant paleontological or archeological resources have been identified within the boundaries of the City or Rossmoor (Cogstone 2014).

However, such resources may occur, although the area of their distribution is not known. For example, as stated earlier, the uppermost layers of the younger Quaternary deposits that comprise the City and Rossmoor typically do not contain significant vertebrate fossils; however, the older Quaternary deposits are known to bear significant vertebrate fossils. Additionally, fossil vertebrate localities near of the City and Rossmoor from the older Quaternary deposits have produced specimens including rays, sharks, bony fish, turtle, birds, sea otter, camels, dog, gopher, horse, and mammoth (Cogstone 2014). Further, as shown in Table 5.3-1, *Recorded Prehistoric Archeological Sites near Los Alamitos*, six prehistoric shell midden<sup>4</sup> sites are close to the City and Rossmoor.

Archaeological sites are protected by a wide variety of state policies and regulations enumerated under the California Public Resources Code. Cultural and paleontological resources are also recognized as nonrenewable

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<sup>4</sup> A shell midden or shell mound is an archaeological feature consisting mainly of mollusk shells. A midden, by definition, contains the debris of human activity. Some shell middens are processing remains: areas where aquatic resources were processed directly after harvest and prior to use or storage in a distant location. Others are directly associated with villages or a house in the village, as a designated dump site (Wikipedia 2014).

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and therefore receive protection under the California Public Resources Code and CEQA. Review and protection of archaeological and paleontological resources are also afforded by CEQA for individual development projects that would be accommodated by the General Plan Update, subject to discretionary actions that are implemented in accordance with the land use plan of the General Plan Update. Per Public Resources Code Section 21083.2 of CEQA, the lead agency is required to determine whether a development project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the project-level CEQA document being prepared for the development project is required to address the issue of those resources.

Additionally, the majority of the development potential of the General Plan Update would concentrate on infill development; redevelopment efforts of underutilized parcels; and the replacement, expansion, or refurbishment of existing development in other areas of the City. Therefore, implementation of the General Plan Update would not introduce a substantial amount of new development that would damage or impact archeological or paleontological resources. Under the General Plan Update, the City would also implement the following policy to reduce impacts of potential developments on cultural resources:

#### *Open Space, Recreation, and Conservation Element*

- **Policy 3.7 Public education** – Support public education efforts for residents and visitors about the unique historic, natural, and cultural resources in Los Alamitos.

It is also important to note that the General Plan Update is a regulatory document that sets the framework for future growth and development in the City and does not result in development in and of itself. Before any development or redevelopment activities can occur in the City, they must be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Long-term implementation of the General Plan Update could allow development (e.g., infill development, redevelopment, and revitalization/restoration), including grading, of unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of archeological or paleontological resources. Therefore, future development that would be accommodated by the General Plan Update could potentially unearth previously unknown/unrecorded archeological or paleontological resources.

#### **Tribal Consultation and Sacred Lands Search**

In accordance with SB 18 requirements and in response to the Tribal Consultation Request form the City submitted to the NAHC, the NAHC sent a list of Native American contacts (eight total) with traditional lands or cultural places associated with the City and Rossmoor. The City sent invitation letters to representatives of the eight Native American contacts on December 9, 2014, formally inviting them to consult with the City during the development of the City's General Plan Update and accompanying DEIR. The intent of the consultation was to provide an opportunity for interested Native American contacts to work together with the City during the project planning process to identify and protect tribal cultural resources. To date, none of the tribes have submitted formal requests for consultation.

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Additionally, a Sacred Lands File search was requested from NAHC as a part of the Paleontological and Cultural Resources Assessment. As stated in the assessment, NAHC replied that there were no known Native American cultural resources within the City or its SOI (see NAHC comment letter in Appendix B). However, NAHC provided a list of thirteen Native American tribes or individuals to contact for further information. Letters requesting information on any heritage sites and containing maps and project information were sent to the thirteen Native American contacts. Only one response was provided; Alfred Cruz of the Juaneño Band of Mission Indians responded that the undeveloped areas within the army airfield are sensitive for prehistoric resources. As noted above, the General Plan Update identifies the Los Alamitos JFTB as Community & Institutional/JFTB (see Figure 3-5, *Proposed Land Use Plan*); however, the City has no jurisdiction or land use authority on this U.S. military installation. No changes are proposed to the land use designations of the Los Alamitos JFTB under the General Plan Update.

#### 5.3.4 Applicable General Plan Policies

The following are relevant policies of the General Plan Update that promote the protection of cultural resources and reduce potential impacts to these resources as a result of future development in the City that would be accommodated by the General Plan Update.

##### Open Space, Recreation, and Conservation Element

- **Policy 3.4 National and state historic resources** – Preserve historical sites and buildings of state or national significance in accordance with the Secretary of Interior Standards for Historic Rehabilitation.
- **Policy 3.5 Local historic resources** – Encourage property owners to maintain the historic integrity of the site by (listed in order of preference): preservation, adaptive reuse, or memorialization.
- **Policy 3.6 St. Isidore** – Support the preservation and repurposing of St. Isidore Historical Plaza as a business or community facility, preserving the chapel as the key historical element.
- **Policy 3.7 Public education** – Support public education efforts for residents and visitors about the unique historic, natural, and cultural resources in Los Alamitos.

#### 5.3.5 Existing Regulations and Standard Conditions

- California Public Resources Code Sections 5020–5029.5; 5079–5079.65; 5097.9–5097.991
- California Code of Regulations, Title 24, Part 8: 2010 California Historic Building Code
- California Government Code Sections 50280 et seq.: Mills Act
- Tribal Consultation under Senate Bill 18

#### 5.3.6 Level of Significance Before Mitigation

Without mitigation, the following impact would be **potentially significant**:



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- **Impact 5.3-1:** Implementation of the General Plan Update would impact historic resources
- **Impact 5.3-2:** Implementation of the General Plan Update could impact archaeological or paleontological resources.

### 5.3.7 Mitigation Measures

#### Impact 5.3-1

- 3-1 Applicants for future development projects with intact extant building(s) more than 45 years old shall provide a historic resource technical study to the City of Los Alamitos. The historic resources technical study shall be prepared by a qualified architectural historian meeting Secretary of the Interior Standards. The study shall evaluate the significance and data potential of the resource in accordance with these standards. If the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4852), mitigation shall be identified within the technical study that ensures the value of the historic resource is maintained.

#### Impact 5.3-2

- 3-2 Applicants for future development projects that require grading of undisturbed soil in areas of known or inferred archaeological resources, prehistoric or historic, shall provide a technical cultural resources assessment to the City of Los Alamitos prior to the issuance of grading permits. The cultural resources assessment shall be prepared by a qualified archaeologist to assess the cultural and historical significance of any known archaeological resources on or next to each respective development site, and to assess the sensitivity of sites for buried archaeological resources. On properties where resources are identified, or that are determined to be moderately to highly sensitive for buried archaeological resources, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:
- a. An archaeologist shall be retained for the development project and shall be on call during grading and other significant ground-disturbing activities.
  - b. Should any cultural/scientific resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources.
  - c. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Archaeologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University, Fullerton; and provide a comprehensive final report including appropriate

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records for the California Department of Parks and Recreation (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable).

- 3-3 Applicants for future development projects that require excavation greater than five feet below the current ground surface in undisturbed sediments with a moderate or higher fossil yield potential shall provide a technical paleontological assessment prepared by a qualified paleontologist assessing the sensitivity of sites for buried paleontological resources to the City of Los Alamitos prior to issuance of grading permits. If resources are known or reasonably anticipated, the assessment shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified paleontologist. The mitigation plan shall include the following requirements:
- a. A paleontologist shall be retained for the project and shall be on call during grading and other significant ground-disturbing activities.
  - b. Should any potentially significant fossil resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources.
  - c. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University, Fullerton; and provide a comprehensive final report, including catalog with museum numbers.

#### 5.3.8 Level of Significance After Mitigation

##### Impact 5.3-1

Compliance with proposed General Plan Update policies and state and federal regulations restricting alteration, relocation, and demolition of historic resources and implementation of Mitigation Measure 3-1 would ensure that land use changes allowed under the General Plan Update would reduce the potential impacts to historic resources to a level that is less than significant.

##### Impact 5.3-2

Implementation of Mitigation Measure 3-2 and 3-3 would reduce the potential impacts to archeological and paleontological resources to a level that is less than significant.

#### 5.3.9 References

Cogstone. 2013, December. Paleontological and Cultural Resources Assessment.

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### 5.4 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the General Plan Update (project) to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). Transportation-sector impacts are based on average daily vehicle miles traveled (VMT) provided by Fehr and Peers (see Appendix C) for trips generated in Los Alamitos and its sphere of influence (SOI), which is the community of Rossmoor. Emissions modeling for the project is included in Appendix G of this DEIR.

#### 5.4.1 Environmental Setting

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).<sup>1,2</sup> The major GHGs are briefly described below.

- **Carbon dioxide (CO<sub>2</sub>)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH<sub>4</sub>)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N<sub>2</sub>O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

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<sup>1</sup> Water vapor (H<sub>2</sub>O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

<sup>2</sup> Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2014a). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

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- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.
  - **Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down the ozone layer. These gases are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
  - **Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF<sub>4</sub>] and perfluoroethane [C<sub>2</sub>F<sub>6</sub>]) were introduced as alternatives, along with HFCs, to ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high GWP.
  - **Sulfur Hexafluoride (SF<sub>6</sub>)** is a colorless gas soluble in alcohol and ether, and slightly soluble in water. SF<sub>6</sub> is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
  - **Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although they are ozone-depleting substances, they are less potent than CFCs. They have been introduced as temporary replacements for CFCs.
  - **Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs. (IPCC 2001; EPA 2012)

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5.4-1, *GHG Emissions and their Relative Global Warming Potential Compared to CO<sub>2</sub>*. The GWP is used to convert GHGs to CO<sub>2</sub>-equivalence (CO<sub>2</sub>e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Second Assessment Report GWP values for CH<sub>4</sub>, a project that generates 10 metric tons (MT) of CH<sub>4</sub> would be equivalent to 210 MT of CO<sub>2</sub>.<sup>3</sup>

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<sup>3</sup> CO<sub>2</sub>-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

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**Table 5.4-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>**

| GHGs                                                      | Atmospheric Lifetime<br>(Years) | Second Assessment Report<br>Global Warming<br>Potential Relative to CO <sub>2</sub> <sup>1</sup> | Fourth Assessment Report<br>Global Warming<br>Potential Relative to CO <sub>2</sub> <sup>1</sup> |
|-----------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Carbon Dioxide (CO <sub>2</sub> )                         | 50 to 200                       | 1                                                                                                | 1                                                                                                |
| Methane <sup>2</sup> (CH <sub>4</sub> )                   | 12 (±3)                         | 21                                                                                               | 25                                                                                               |
| Nitrous Oxide (N <sub>2</sub> O)                          | 120                             | 310                                                                                              | 298                                                                                              |
| Hydrofluorocarbons:                                       |                                 |                                                                                                  |                                                                                                  |
| HFC-23                                                    | 264                             | 11,700                                                                                           | 14,800                                                                                           |
| HFC-32                                                    | 5.6                             | 650                                                                                              | 675                                                                                              |
| HFC-125                                                   | 32.6                            | 2,800                                                                                            | 3,500                                                                                            |
| HFC-134a                                                  | 14.6                            | 1,300                                                                                            | 1,430                                                                                            |
| HFC-143a                                                  | 48.3                            | 3,800                                                                                            | 4,470                                                                                            |
| HFC-152a                                                  | 1.5                             | 140                                                                                              | 124                                                                                              |
| HFC-227ea                                                 | 36.5                            | 2,900                                                                                            | 3,220                                                                                            |
| HFC-236fa                                                 | 209                             | 6,300                                                                                            | 9,810                                                                                            |
| HFC-4310mee                                               | 17.1                            | 1,300                                                                                            | 1,030                                                                                            |
| Perfluoromethane: CF <sub>4</sub>                         | 50,000                          | 6,500                                                                                            | 7,390                                                                                            |
| Perfluoroethane: C <sub>2</sub> F <sub>6</sub>            | 10,000                          | 9,200                                                                                            | 12,200                                                                                           |
| Perfluorobutane: C <sub>4</sub> F <sub>10</sub>           | 2,600                           | 7,000                                                                                            | 8,860                                                                                            |
| Perfluoro-2-methylpentane: C <sub>6</sub> F <sub>14</sub> | 3,200                           | 7,400                                                                                            | 9,300                                                                                            |
| Sulfur Hexafluoride (SF <sub>6</sub> )                    | 3,200                           | 23,900                                                                                           | 22,800                                                                                           |

Source: IPCC 200; IPCC 2007.

Notes: The IPCC has published updated global warming potential (GWP) values in its Fifth Assessment Report (2013) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO<sub>2</sub> (radiative forcing is the difference of energy from sunlight received by the earth and radiated back into space). However, GWP values identified in the Second Assessment Report are still used by SCAQMD to maintain consistency in GHG emissions modeling. In addition, the 2008 Scoping Plan was based on the GWP values in the Second Assessment Report.

<sup>1</sup> Based on 100-year time horizon of the GWP of the air pollutant relative to CO<sub>2</sub> (IPCC 2001 and IPCC 2007).

<sup>2</sup> The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO<sub>2</sub> is not included.

### California's Greenhouse Gas Sources and Relative Contribution

California is the tenth largest GHG emitter in the world and the second largest emitter of GHG emissions in the United States, surpassed only by Texas (CEC 2005). However, California also has over 12 million more people than Texas. Because of more stringent air emission regulations, in 2001, California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO<sub>2</sub> emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services)(CEC 2006a).

The California Air Resources Board's (CARB) last update to the statewide GHG emissions inventory that used the Second Assessment Report GWPs was in 2012 for year 2009 emissions.<sup>4</sup> In 2009, California produced 457 million metric tons (MMT) of CO<sub>2</sub>e GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the state's total emissions. Electricity

<sup>4</sup> Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

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consumption is the second largest source, producing 22.7 percent. Industrial activities are California's third largest source of GHG emissions at 17.8 percent. (CARB 2012a).

In 2013, the statewide GHG emissions inventory was updated for 2000 to 2012 emissions using the GWPs in IPCC's Fourth Assessment Report. Based on these GWPs, California produced 459 MMTCO<sub>2e</sub> GHG emissions in 2012. California's transportation sector remains the single largest generator of GHG emissions, producing 36.5 percent of the state's total emissions. Electricity consumption made up 20.7 percent, and industrial activities produced 19.4 percent. Other major sectors of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry (CARB 2014b).

### Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that is attributable to human activities. The amount of CO<sub>2</sub> has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is rising at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006).

Climate-change scenarios are affected by varying degrees of uncertainty. IPCC's "2007 IPCC Fourth Assessment Report" projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4 to 5.8°C (2.5 to 10.4°F). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

### Potential Climate Change Impacts for California

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; 4) an advance snowmelt of 5 to 30 days earlier in the springs; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team, even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.4-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.4-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level,

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forest and biological resources, and energy. Specific climate change impacts that could affect the project include health impacts from a deterioration in air quality, water resources impacts from a reduction in water supply, sea level rise in the coastal areas (shown in Figure 12.5, *Sea Level Rise Impact Areas*, in the General Plan), and increased energy demand.

**Table 5.4-2 Summary of GHG Emissions Risks to California**

| Impact Category                        | Potential Risk                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Public Health Impacts                  | Poor air quality made worse<br>More severe heat                                                                                                                                                                                                                                                                                                                             |
| Water Resources Impacts                | Decreasing Sierra Nevada snow pack<br>Challenges in securing adequate water supply<br>Potential reduction in hydropower<br>Loss of winter recreation                                                                                                                                                                                                                        |
| Agricultural Impacts                   | Increasing temperature<br>Increasing threats from pests and pathogens<br>Expanded ranges of agricultural weeds<br>Declining productivity<br>Irregular blooms and harvests                                                                                                                                                                                                   |
| Coastal Sea Level Impacts              | Accelerated sea level rise<br>Increasing coastal floods<br>Shrinking beaches<br>Worsened impacts on infrastructure                                                                                                                                                                                                                                                          |
| Forest and Biological Resource Impacts | Increased risk and severity of wildfires<br>Lengthening of the wildfire season<br>Movement of forest areas<br>Conversion of forest to grassland<br>Declining forest productivity<br>Increasing threats from pest and pathogens<br>Shifting vegetation and species distribution<br>Altered timing of migration and mating habits<br>Loss of sensitive or slow-moving species |
| Energy Demand Impacts                  | Potential reduction in hydropower<br>Increased energy demand                                                                                                                                                                                                                                                                                                                |

Sources: CEC 2006b; CEC 2008.

#### 5.4.1.1 REGULATORY BACKGROUND

##### Federal Laws

The U.S. Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (EPA 2009).



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The EPA's endangerment finding covers emissions of six key GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons, perfluorocarbons, and SF<sub>6</sub>—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world (the first three are applicable to the project).

#### *US Mandatory Report Rule for GHGs (2009)*

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO<sub>2</sub> per year are required to submit an annual report.

#### *Update to Corporate Average Fuel Economy Standards (2010/2012)*

The current Corporate Average Fuel Economy (CAFE) standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025, which will require a fleet average of 54.5 mpg in 2025.

#### *EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)*

Pursuant to its authority under the CAA, the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to the President's 2013 Climate Action Plan, the EPA will be directed to also develop regulations for existing stationary sources.

### State Laws

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Assembly Bill 32 (AB 32), and Senate Bill 375 (SB 375).

#### *Executive Order S-03-05*

Executive Order S-3-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

#### *Assembly Bill 32, the Global Warming Solutions Act (2006)*

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

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#### *CARB 2008 Scoping Plan*

The final Scoping Plan was adopted by CARB on December 11, 2008. AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO<sub>2</sub>e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

The 2008 Scoping Plan identified that GHG emissions in California are anticipated to be approximately 596 MMTCO<sub>2</sub>e in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO<sub>2</sub>e (471 million tons) for the state. The 2020 target requires a total emissions reduction of 169 MMTCO<sub>2</sub>e, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 MMTCO<sub>2</sub>e) (CARB 2008).<sup>5</sup>

Since release of the 2008 Scoping Plan, CARB has updated the statewide GHG emissions inventory to reflect GHG emissions in light of the economic downturn and of measures not previously considered in the 2008 Scoping Plan baseline inventory. The updated forecast predicts emissions to be 545 MMTCO<sub>2</sub>e by 2020. The revised BAU 2020 forecast shows that the state would have to reduce GHG emissions by 21.7 percent from BAU. The new inventory also identifies that if the updated 2020 forecast includes the reductions assumed from implementation of Pavley (26 MMTCO<sub>2</sub>e of reductions) and the 33 per cent RPS (12 MMTCO<sub>2</sub>e of reductions) the forecast would be 507 MMTCO<sub>2</sub>e in 2020, and then an estimated 80 MMTCO<sub>2</sub>e of additional reductions are necessary to achieve the statewide emissions reduction of AB 32 by 2020, or a 15.7 percent of the projected emissions compared to BAU in year 2020 (i.e., 15.7 percent of 507 MMTCO<sub>2</sub>e) (CARB 2012b).

Key elements of CARB's GHG reduction plan that may be applicable to the project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress).
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020).
- A California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources (adopted 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted).

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<sup>5</sup> CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

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- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (LCFS) (adopted 2009).<sup>6</sup>
- Creating target fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

Table 5.4-3, *Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target*, shows the proposed reductions from regulations and programs outlined in the 2008 Scoping Plan. Although local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 MMTCO<sub>2</sub>e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role that local governments play in the successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target.<sup>7</sup> Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer VMT (CARB 2008).

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<sup>6</sup> On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoined the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Ninth Circuit Court granted CARB's motion for a stay of the injunction while it continued to consider CARB's appeal of the lower court's decision. On July 15, 2013, the State of California Court of Appeals held that the LCFS would remain in effect and that CARB can continue to implement and enforce the 2013 regulatory standards while it corrects certain aspects of the procedures by which the LCFS was adopted. Accordingly, CARB is continuing to implement and enforce the LCFS while addressing the court's concerns.

<sup>7</sup> The Scoping Plan references a goal for local governments to reduce community GHG emissions by 15 percent from current (interpreted as 2008) levels by 2020, but it does not rely on local GHG reduction targets established by local governments to meet the state's GHG reduction target of AB 32.

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Table 5.4-3 Scoping Plan GHG Reduction Measures and Reductions Toward 2020 Target

| Recommended Reduction Measures                                            | Reductions Counted toward<br>2020 Target of 169 MMT<br>CO <sub>2</sub> e | Percentage of<br>Statewide 2020<br>Target |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------|
| <b>Cap and Trade Program and Associated Measures</b>                      |                                                                          |                                           |
| California Light-Duty Vehicle GHG Standards                               | 31.7                                                                     | 19%                                       |
| Energy Efficiency                                                         | 26.3                                                                     | 16%                                       |
| Renewable Portfolio Standard (33 percent by 2020)                         | 21.3                                                                     | 13%                                       |
| Low Carbon Fuel Standard                                                  | 15                                                                       | 9%                                        |
| Regional Transportation-Related GHG Targets <sup>1</sup>                  | 5                                                                        | 3%                                        |
| Vehicle Efficiency Measures                                               | 4.5                                                                      | 3%                                        |
| Goods Movement                                                            | 3.7                                                                      | 2%                                        |
| Million Solar Roofs                                                       | 2.1                                                                      | 1%                                        |
| Medium/Heavy Duty Vehicles                                                | 1.4                                                                      | 1%                                        |
| High Speed Rail                                                           | 1.0                                                                      | 1%                                        |
| Industrial Measures                                                       | 0.3                                                                      | 0%                                        |
| Additional Reduction Necessary to Achieve Cap                             | 34.4                                                                     | 20%                                       |
| <b>Total Cap and Trade Program Reductions</b>                             | <b>146.7</b>                                                             | <b>87%</b>                                |
| <b>Uncapped Sources/Sectors Measures</b>                                  |                                                                          |                                           |
| High Global Warming Potential Gas Measures                                | 20.2                                                                     | 12%                                       |
| Sustainable Forests                                                       | 5                                                                        | 3%                                        |
| Industrial Measures (for sources not covered under cap and trade program) | 1.1                                                                      | 1%                                        |
| Recycling and Waste (landfill methane capture)                            | 1                                                                        | 1%                                        |
| <b>Total Uncapped Sources/Sectors Reductions</b>                          | <b>27.3</b>                                                              | <b>16%</b>                                |
| <b>Total Reductions Counted toward 2020 Target</b>                        | <b>174</b>                                                               | <b>100%</b>                               |
| <b>Other Recommended Measures – Not Counted toward 2020 Target</b>        |                                                                          |                                           |
| State Government Operations                                               | 1.0 to 2.0                                                               | 1%                                        |
| Local Government Operations <sup>2</sup>                                  | To Be Determined                                                         | NA                                        |
| Green Buildings                                                           | 26                                                                       | 15%                                       |
| Recycling and Waste                                                       | 9                                                                        | 5%                                        |
| Water Sector Measures                                                     | 4.8                                                                      | 3%                                        |
| Methane Capture at Large Dairies                                          | 1                                                                        | 1%                                        |
| <b>Total Other Recommended Measures – Not Counted toward 2020 Target</b>  | <b>42.8</b>                                                              | <b>NA</b>                                 |

Source: CARB 2008.

Notes: The percentages in the right-hand column add up to more than 100 percent because the emissions reduction goal is 169 MMTCO<sub>2</sub>e and the Scoping Plan identifies 174 MMTCO<sub>2</sub>e of emissions reductions strategies.MMTCO<sub>2</sub>e: million metric tons of CO<sub>2</sub>e<sup>1</sup> Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.<sup>2</sup> According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO<sub>2</sub>e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 target.*2014 Update to the Scoping Plan*

CARB recently completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The final Update to the Scoping Plan was released in May, and CARB adopted it at the May 22, 2014, board hearing. The Update to the Scoping Plan defines CARB's climate change priorities for the next five years and lays the

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groundwork to reach post-2020 goals in Executive Orders S-3-05 and B-16-2012. The update includes the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants. The GHG target identified in the 2008 Scoping Plan is based on IPCC's GWPs identified in the Second and Third Assessment Reports (see Table 5.4-1). IPCC's Fourth and Fifth Assessment Reports identified more recent GWP values based on the latest available science. CARB recalculated the 1990 GHG emission levels with the updated GWPs in the Fourth Assessment Report, and the 427 MMTCO<sub>2</sub>e 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher, at 431 MMTCO<sub>2</sub>e (CARB 2014a).

The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the Update to the Scoping Plan also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a mid-term target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with, or exceeds, the trajectory created by statewide goals (CARB 2014a).

According to the Update to the Scoping Plan, reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014a).

#### ***Senate Bill 375***

In 2008, Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010).

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The

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proposed targets would result in 3 MMTCO<sub>2</sub>e of reductions by 2020 and 15 MMTCO<sub>2</sub>e of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

#### ***SCAG's 2012 RTP/SCS***

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. For the SCAG region, the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in April 2012 (SCAG 2012). In addition, the Gateway Cities Council of Governments (COG), which is a subregional governing agency with the SCAG region, has created its own SCS. Data and policies in this subregional SCS are incorporated into SCAG's 2012 RTP/SCS. The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers.

#### ***Assembly Bill 1493***

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

#### ***Executive Order S-01-07***

On January 18, 2007, the state set a new low carbon fuel standard (LCFS) for transportation fuels sold within the state. Executive Order S-1-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

#### ***Executive Order B-16-2012***

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and

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the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

#### *Senate Bills 1078 and 107, and Executive Order S-14-08*

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. CARB has now approved an even higher goal of 33 percent by 2020. In 2011, the state legislature adopted this higher standard in SBX1-2. Executive Order S-14-08 was signed in November 2008, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

#### *California Building Code*

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2013 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which went into effect on July 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (non-residential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, CCR). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.<sup>8</sup> The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011 and were updated most recently in 2013.

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<sup>8</sup> The green building standards became mandatory in the 2010 edition of the code.

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#### 2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business as usual,” they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

#### 5.4.1.2 EXISTING CONDITIONS

##### Existing Emissions

Table 5.4-4, *Existing City of Los Alamitos and Rossmore GHG Emissions Inventory*, identifies the existing community GHG emissions inventory for the City of Los Alamitos and Rossmore. GHG emissions generated within the City of Los Alamitos and Rossmore was estimated using EMFAC2011, OFFROAD2007, CARB's Landfill Emissions model, and CalEEMod 2013.2.2 emission factors.

**Table 5.4-4 Existing City of Los Alamitos and Rossmore GHG Emissions Inventory**

| Sector                                                     | GHG Emissions<br>MTCO <sub>2</sub> e/Year | Percent of Emissions |
|------------------------------------------------------------|-------------------------------------------|----------------------|
| On-Road Transportation <sup>1</sup>                        | 163,283                                   | 59%                  |
| Residential (Natural Gas and Electricity) <sup>2</sup>     | 40,338                                    | 15%                  |
| Non-Residential (Natural Gas and Electricity) <sup>2</sup> | 61,113                                    | 22%                  |
| Solid Waste Generation <sup>3</sup>                        | 2,089                                     | 1%                   |
| Water/Wastewater <sup>2</sup>                              | 6,665                                     | 2%                   |
| Other (Offroad Equipment) <sup>4</sup>                     | 2,745                                     | 1%                   |
| <b>Total</b>                                               | <b>276,233</b>                            | <b>100%</b>          |

Source: GHG emissions associated with the Los Alamitos Joint Forces Training Base (JFTB) are excluded from this inventory because emissions are under Federal jurisdiction and no information on emissions associated with base activities is available from the U.S. military institution. Therefore, in accordance with California protocols for communitywide inventories, on-site military base emissions are not a part of the City's communitywide inventory.

<sup>1</sup> EMFAC2011-PL.

<sup>2</sup> CalEEMod Version 2013.2.2 emission rates (natural gas, wastewater) and CPUC WCI Final Default Emission Factor Calculator 2008 Data, Version 2 (electricity).

<sup>3</sup> CARB Landfill Emissions Tool Version 1.3

<sup>4</sup> OFFROAD2007

#### 5.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the project would have a significant effect on the environment with respect to GHG emissions if it would:

- GHG-1 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- GHG-2 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.



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#### SCAQMD GHG Significance Thresholds

SCAQMD has adopted a significance threshold of 10,000 MTCO<sub>2</sub>e per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD is proposing a “bright-line” screening-level threshold of 3,000 MTCO<sub>2</sub>e annually for all land use types or the following land-use-specific thresholds: 1,400 MTCO<sub>2</sub>e for commercial projects, 3,500 MTCO<sub>2</sub>e for residential projects, or 3,000 MTCO<sub>2</sub>e for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore less than cumulatively considerable impact on GHG emissions:

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.
- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended approach is per capita efficiency targets. SCAQMD is not recommending use of a percent emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 MTCO<sub>2</sub>e per year per service population (MTCO<sub>2</sub>e/year/SP) for project-level analyses and 6.6 MTCO<sub>2</sub>e/year/SP for plan level projects (e.g., program-level projects such as general plans). The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.<sup>9</sup>

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<sup>9</sup> SCAQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

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#### 5.4.3 Environmental Impacts

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG emissions impacts are likely to occur in conjunction with future development that would be accommodated by the project. SCAQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating air quality impacts and which were used in this analysis. The City's GHG emissions inventory is consistent with ICLEI's *US Community GHG Emissions Protocol for Accounting and Reporting of Greenhouse Gas Emissions* (2012) and includes the following mandatory sectors:

- **On-Road Transportation:** Transportation emissions forecasts were modeled using CARB's EMFAC2011-PL. Model runs were based on daily per capita VMT data provided by Fehr and Peers for 2013 and post-2035 conditions for Los Alamitos and Rossmoor using the Orange County Transportation Authority's regional transportation demand model (OCTAM) and 2013 (existing) and 2035 emission rates.
- **Energy:** Natural gas for residential and non-residential land uses were modeled using data provided by the Southern California Gas Company (SoCalGas) for years 2013, 2012, and 2011. Electricity use for residential and non-residential land uses were modeled using data provided by Southern California Edison (SCE) for years 2013 and 2012. Carbon intensity for electricity is based on the California Public Utility Commission's (CPUC) Western Climate Initiative (WCI) Final Default Emission Factor Calculator 2008 Data, Version 2. Residential energy use is adjusted for increases in residential units while non-residential energy use is adjusted for increases in employment in the City of Los Alamitos and Rossmoor.
- **Area Sources:** OFFROAD2007 was used to estimate GHG emissions from construction and mining equipment, lawn and garden equipment, and light commercial equipment, in the City of Los Alamitos. OFFROAD2007 is a database of equipment use and associated emissions for each county compiled by CARB. Annual emissions were compiled using OFFROAD2007 for Orange County for the year 2013. In order to determine the percentage of emissions attributable to the City of Los Alamitos and Rossmoor, emissions for the City of Los Alamitos and Rossmoor are extrapolated based on building constructions, population, or employment for the City of Los Alamitos and Rossmoor as a percentage of Orange County as a whole. Forecasts are assumed to be similar to historic for construction while lawn and garden equipment and light commercial equipment are adjusted for increases in population and employment, respectively, in the City of Los Alamitos and Rossmoor.
- **Water/Wastewater:** GHG emissions from water conveyance and fugitive emissions from the wastewater treatment process was based on per capita water demand rates obtained from the Golden State Water Company's (GSWC) 2010 Urban Water Management Plan. Forecasts are adjusted for increases in service population in the City of Los Alamitos and Rossmoor. Indoor water use is assumed to be 70 percent of total water use.

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- **Solid Waste Generation:** GHG emissions from solid waste disposal is based on historic waste disposal for Los Alamitos from CalRecycle and modeled using CARB's Landfill Emissions Tool Version 1.3. Forecasts are adjusted for increases in service population in the City of Los Alamitos and Rossmoor.

GHG emissions associated with the Los Alamitos Joint Forces Training Base (JFTB) are excluded from this inventory because emissions are under federal jurisdiction. Furthermore, no information on emissions associated with base activities is available from the U.S. military. This exclusion, in accordance with California protocols for community inventories. Likewise, permitted sources of emissions (industrial), which require a permit from SCAQMD, are not included in the City's community inventory. Life cycle emissions are also not included in this analysis because not enough information is available for the proposed project, and therefore life cycle GHG emissions would be speculative.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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|              |                                                                                                                                                                                                                                                                                                                      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Impact 5.4-1 | Buildout of the City of Los Alamitos pursuant to the General Plan Update would generate a decrease in GHG emissions compared to existing conditions as a result of federal and state GHG emissions regulations and would not generate GHG emissions that would have a significant impact on the environment. [GHG-1] |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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**Impact Analysis:** Development under the project would contribute to global climate change through direct and indirect emissions of GHG from land uses within the City of Los Alamitos and Rossmoor.

#### General Plan Buildout

The change in GHG emissions is based on the difference between existing land uses and land uses associated with buildout of the General Plan Update. The community-wide GHG emissions inventory for the City of Los Alamitos and Rossmoor at buildout (post-2035) compared to existing conditions is in Table 5.4-5, *Post-2035 City of Los Alamitos and Rossmoor GHG Emissions Inventory*. The post-2035 inventory includes reductions from federal and state measures identified in CARB's Scoping Plan, including the Pavley fuel efficiency standards, LCFS for fuel use (transportation and off-road), and state reductions for non-transportation measures. It is likely that new federal and state programs would be adopted, resulting in further GHG reductions post-2035.

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Table 5.4-5 Post-2035 City of Los Alamitos and Rossmoor GHG Emissions Inventory

| Sector                                                     | GHG Emissions<br>MTCO <sub>2</sub> e/Year |                                                                |                  |                     |                             |
|------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------|------------------|---------------------|-----------------------------|
|                                                            | Existing 2013                             | General Plan<br>Buildout With<br>State & Federal<br>Reductions | Percent of Total | Change from<br>2013 | Percent Change<br>from 2013 |
| On-Road Transportation <sup>1</sup>                        | 163,283                                   | 147,579                                                        | 56%              | -15,703             | -10%                        |
| Residential (Natural Gas and Electricity) <sup>2</sup>     | 40,338                                    | 38,195                                                         | 15%              | -2,143              | -5%                         |
| Non-Residential (Natural Gas and Electricity) <sup>2</sup> | 61,113                                    | 65,623                                                         | 25%              | 4,510               | -7%                         |
| Solid Waste Generation <sup>3</sup>                        | 2,089                                     | 2,386                                                          | 1%               | 297                 | 14%                         |
| Water/Wastewater <sup>2</sup>                              | 6,665                                     | 5,901                                                          | 2%               | -763                | -11%                        |
| Other (Offroad Equipment) <sup>4</sup>                     | 2,745                                     | 2,758                                                          | 1%               | 13                  | <-1%                        |
| <b>Total</b>                                               | <b>276,233</b>                            | <b>262,443</b>                                                 | <b>100%</b>      | <b>-13,789</b>      | <b>-5%</b>                  |
| Service Population (SP) <sup>5</sup>                       | 36,278                                    | 41,433                                                         | —                | —                   | —                           |
| MTCO <sub>2</sub> e/SP                                     | 7.6 MTCO <sub>2</sub> e/SP                | 6.3 MTCO <sub>2</sub> e/SP                                     | —                | —                   | —                           |

Note: GHG emissions associated with the Los Alamitos Joint Forces Training Base (JFTB) are excluded from this inventory because emissions are under federal jurisdiction, and no information.

<sup>1</sup> EMFAC2011-PL.

<sup>2</sup> CalEEMod Version 2013.2.2 emission rates (natural gas, wastewater) and CPUC WCI Final Default Emission Factor Calculator 2008 Data, Version 2 (electricity).

<sup>3</sup> CARB Landfill Emissions Tool Version 1.3

<sup>4</sup> OFFROAD2007

<sup>5</sup> Existing based on a service population of 21,618 people and 14,660 employees in Los Alamitos and Rossmoor. General Plan Update buildout based on a service population of 23,003 people and 18,430 employees in Rossmoor and Los Alamitos

Compared to the existing emissions inventory, the City of Los Alamitos and SOI would experience a decrease of 13,789 MTCO<sub>2</sub>e of GHG emissions at buildout as a result of regulations adopted to reduce GHG emissions and turnover of California's on-road vehicle fleets. As identified by the California Natural Resources Agency's "Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to Senate Bill 97" (2009), the CEQA Guidelines do not establish a zero emissions threshold of significance because there is no one molecule rule in CEQA. Therefore, emissions generated by additional growth in the City and Rossmoor would be offset by a reduction in existing emissions from implementation of federal and state regulations. As a result, the City of Los Alamitos and Rossmoor would not experience an increase in GHG emissions at project buildout. GHG emissions in the City would be approximately 5 percent less than the City's 2013 community GHG emissions, even with additional growth. Consequently, impacts would be less than significant.

**Impact 5.4-2** Federal, state, and local GHG reduction plans are necessary to achieve the long-term GHG reduction targets of Executive Order S-03-05. [GHG-2]

**Impact Analysis:** The following plans have been adopted and are applicable for development in the City of Los Alamitos and Rossmoor.

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#### CARB Scoping Plan

Since adoption of the 2008 Scoping Plan, state agencies have adopted GHG reduction programs, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the LCFS and changes in the corporate average fuel economy standards (e.g., Pavley I and 2017–2025 CAFE standards). The on-road transportation GHG emissions in Table 5.4-5 include state and federal reductions associated with the Pavley fuel efficiency improvements (adopted in 2009) and the LCFS. In addition, electricity use assumes projects in the City of Los Alamitos and Rossmore would be required to adhere to the programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32. Consequently, the proposed General Plan Update would not conflict with the adopted regulations or programs outlined in the Scoping Plan. However, for the purpose of this environmental assessment, the community GHG inventory and forecast for the City was also compared to the long-term GHG reduction goals of the state to provide a conservative assessment of the targets requested of local governments by CARB.

Although Table 5.4-5 identifies that buildout of the General Plan Update would result in less emissions than currently generated in the City, the overall goal in the state is to achieve a 80 percent reduction from 1990 levels by 2050. In 2014, CARB adopted an update to the Scoping Plan. As identified in the update, as California continues to build its climate policy framework, and there is a need for local government climate action planning to adopt midterm and long-term reduction targets that are consistent with scientific assessments and the statewide goal of reducing emissions 80 percent below 1990 levels by 2050. CARB identifies that local government reduction targets should chart a reduction trajectory that is consistent with, or exceeds, the trajectory created by statewide goals (CARB 2014a). Table 5.4-6, *Statewide Trajectory to Achieve Interim Goal under Executive Order S-03-05*, estimates a goal for 2035 that would place the state and Los Alamitos on track to achieve the long-term emissions reduction goals of Executive Order S-03-05.

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**Table 5.4-6 Statewide Trajectory to Achieve Interim Goal under Executive Order S-03-05**

| Year | Description                                                               | CARB 2008 Scoping Plan (MMTCO <sub>2</sub> e) |                             | CARB 2014 Scoping Plan and Inventory Update (MMTCO <sub>2</sub> e) |                             |
|------|---------------------------------------------------------------------------|-----------------------------------------------|-----------------------------|--------------------------------------------------------------------|-----------------------------|
|      |                                                                           | Second Assessment Report GWP <sup>2</sup>     | Percent Reduction to Target | Fourth Assessment Report GWP <sup>2</sup>                          | Percent Reduction to Target |
| 1990 | AB 32 and Executive Order S-03-05 base year                               | 433.29                                        | —                           | 431.00                                                             | —                           |
| 2008 | Percent Reduction from 2008 to meet 1990 level                            | 512.40                                        | 15%                         | 487.10                                                             | 12%                         |
| 2012 | Percent Reduction from 2012 to meet 1990                                  | —                                             | —                           | 458.68                                                             | 6%                          |
| 2035 | Percent Reduction from 2012 to meet 80 percent below 1990 levels          | —                                             | —                           | 258.60                                                             | 44%                         |
| 2035 | 2035 Interim Target for Los Alamitos and Rossmoor based on 2013 Inventory |                                               |                             | 155,738 MTCO <sub>2</sub> e                                        |                             |
| 2035 | Reductions needed by 2035 to Achieve Target                               |                                               |                             | 120,495 MTCO <sub>2</sub> e                                        |                             |

Notes:  
 GWP: global warming potential; MTCO<sub>2</sub>e: metric tons of carbon dioxide-equivalent; MMTCO<sub>2</sub>e: million metric tons of carbon dioxide-equivalent  
<sup>1</sup> CARB 2008.  
<sup>2</sup> CARB 2014a and CARB 2014b.

To place Los Alamitos on a similar trajectory, the City and SOI would need to reduce GHG emissions by 120,495 MTCO<sub>2</sub>e to achieve 155,738 MTCO<sub>2</sub>e in 2035. They would require assistance from additional federal and state programs and regulations to achieve the long-term GHG emissions goal. Due to the magnitude of emissions reductions required statewide to achieve an interim target consistent with Executive Order S-03-05, such an achievement is unlikely for the majority of jurisdictions in California without additional federal and state programs and regulations. The Scoping Plan Update assessed programs to achieve the 2020 target for the state, but at this time, no additional GHG reductions programs are available that achieve the post-2020 target. The California Council on Science and Technology determined that the State cannot meet the 2050 goal without major advancements in technology (CCST 2012). Impacts from GHG emissions in the City of Los Alamitos would be significant in the absence of federal, state, and local plans to achieve the long-term GHG reduction targets for the state.

### SCAG's 2012 RTP/SCS

SCAG adopted its 2012 RTP/SCS on April 4, 2012, pursuant to the requirements of SB 375. SCAG's RTP/SCS is a regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light duty trucks in the Southern California region. It incorporates the Orange County Transportation Authority's (OCTA) SCS. The 2012 RTP/SCS also incorporates local land use projections and circulation networks in the cities' and counties' general plans. The projected regional development pattern—including the location of land uses and residential densities in local general plans—when integrated with the proposed regional transportation network in the 2012 RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the subregional GHG reduction per capita targets for the SCAG region, which are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per

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capita reduction from 2005 GHG emission levels by 2035. Key strategies in the SCAG 2012 RPT/SCS are identified in Table 5.6-1, *Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals*, in Section 5.6, *Land Use and Planning*. In addition, a consistency analysis with the Orange County subregional SCS are listed in Table 5.4-7, *Orange County Subregional SCS Consistency Analysis*. Table 5.6-1 and Table 5.4-7 show that the General Plan Update would not conflict with plans adopted for the purpose of reducing GHG emissions. Consequently, the impacts from consistency with SCAG's 2012 RTP/SCS and the Orange County subregional SCS are less than significant.

**Table 5.4-7 Orange County Subregional SCS Consistency Analysis**

| Sustainability Strategies                                                     | Project Consistency                                                                                                                                                                                                                                       | Relevant General Plan Policies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support transit-oriented development.                                         | Consistent: The proposed General Plan includes policies that would directly or indirectly support transit-oriented development.                                                                                                                           | <p>Land Use Element.</p> <p>Policy 1.4. Vertical mixed-use. Encourage development that provides retail on the ground floor and office, hotel, or residential uses on upper floors in the town center along Los Alamitos Boulevard.</p> <p>Open Space, Recreation, and Conservation Element.</p> <p>Policy 4.1. Land use and transportation. Reduce greenhouse gas and other local pollutant emissions through mixed-use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.</p> |
| Support infill housing development and redevelopment                          | Consistent: The City's Housing Element was recently updated for the 2014–2021 planning period and remains a part of the Los Alamitos General Plan. The Housing Element includes policies that would support infill housing development and redevelopment. | <p>Housing Element.</p> <p>Policy Action 4.1: Incentives for Development of Housing Affordable to Extremely-Low, Very-Low, Low and Moderate Income Households.</p> <p>Policy Action 4.2: Adequate Sites for Housing.</p> <p>Policy Action 4.3: Encourage and Facilitate Lot Consolidation</p> <p>Policy Action 5.2: Pursue External Funding for Housing Rehabilitation, Preservation and Production.</p> <p>Policy Action 5.3: Investigate Redevelopment Opportunities</p>                                               |
| Support mixed-use development and thereby improve walkability of communities. | Consistent: The proposed General Plan includes policies that support mixed-use development. In addition, the General Plan incorporates a land use designation for mixed-use in the City.                                                                  | <p>Land Use Element.</p> <p>Policy 1.4. Vertical mixed-use. Encourage development that provides retail on the ground floor and office, hotel, or residential uses on upper floors in the town center along Los Alamitos Boulevard.</p>                                                                                                                                                                                                                                                                                   |

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Table 5.4-7 Orange County Subregional SCS Consistency Analysis

| Sustainability Strategies                                                                                                                                                                                | Project Consistency                                                                                                                                                                                                                                                                                                                    | Relevant General Plan Policies                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improve jobs-to-house ratio.                                                                                                                                                                             | Consistent: The City of Los Alamitos has an influx in its daytime population as a result of employment opportunities in the City. The City is mostly built out and there are few undeveloped parcels. The following policies in the proposed General Plan would be consistent with this strategy.                                      | Land Use Element.<br>Policy 1.4<br><br>Policy 2.2. Mix of land uses. Maintain a balanced mix of residential, retail, employment, industrial, open space, and public facility land uses.                                                                                                                                                                                                                                                                                      |
| Promote land use patterns that encourage the use of alternatives to single-occupant automobile use.                                                                                                      | Consistent: The following policies included as part of the proposed General Plan would support the promotion of land use patterns that encourage the use of alternatives to single-occupant automobile use.                                                                                                                            | Land Use Element.<br>Policy 1.4 and Policy 2.2<br><br>Open Space, Recreation, and Conservation Element.<br>Policy 4.1. Land use and transportation. Reduce greenhouse gas and other local pollutant emissions through mixed-use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.                                                                                                                                                 |
| Support retention and/or development of affordable housing.                                                                                                                                              | Consistent: The City's Housing Element was recently updated for the 2014–2021 planning period and remains a part of the Los Alamitos General Plan. The Housing Element includes policies consistent with this strategy.                                                                                                                | Housing Element.<br>Policy Action 2.1: Preservation of Units At-Risk of Converting to Market Rate.<br><br>Policy Action 4.1: Incentives for Development of Housing Affordable to Extremely-Low, Very-Low, Low and Moderate Income Households                                                                                                                                                                                                                                 |
| Support natural land restoration and conservation and/or protection offering significant carbon mitigation potential via both sequestration and avoidance of increased emissions due to land conversion. | Consistent: The City of Los Alamitos is built out. Approximately 50 percent of the City is the Los Alamitos JFTB, which is not under the City's jurisdiction. This policy is not applicable for the City of Los Alamitos. However, the General Plan Update includes policies that ensure retention of an urban forest in Los Alamitos. | Open Space and Conservation Element.<br>Policy 3.1. Native plants. Require the use of native and climate-appropriate plant species, and prohibit the use of plant species known to be invasive.<br><br>Policy 3.2. Urban forest. Maintain and enhance a diverse and healthy urban forest on public and private lands. Incorporate and preserve mature and specimen trees at key gateways, landmarks, and public facilities.                                                  |
| Eliminate bottlenecks and reduce delay on freeways, toll roads, and arterials.                                                                                                                           | Consistent: Policies in the proposed General Plan would support a more efficient operation of roadways.                                                                                                                                                                                                                                | Mobility and Circulation Element.<br>Policy 1.4. Level of Service. Maintain a Level of Service (LOS) "D" or better along all City arterials and at intersections during peak hours, with the following exceptions:<br>A. There is a desire to prioritize pedestrians and/or bicyclists over vehicles<br>B. Insufficient ROW exists<br>C. The intersection or roadway is considered built out<br>The following intersections and roadways are exempt from the LOS D standard: |



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Table 5.4-7 Orange County Subregional SCS Consistency Analysis

| Sustainability Strategies                                                                                              | Project Consistency                                                                                                             | Relevant General Plan Policies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                        |                                                                                                                                 | <ul style="list-style-type: none"> <li>Katella Avenue and Los Alamitos Boulevard intersection</li> <li>Katella Avenue and Walnut Street/Wallingsford Road intersection</li> <li>Bloomfield Street and Cerritos Avenue intersection</li> <li>Katella Avenue (between Interstate 605 and Walker Street)</li> <li>Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard)</li> </ul> <p>Policy 1.5. Multimodal LOS. Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.</p>                                                                                                                                                           |
| Apply Transportation System Management and Complete Street practices to arterials and freeways to maximize efficiency. | Consistent: Policies in the proposed General Plan would provide support in maximizing the efficiency of arterials and freeways. | <p><b>Mobility and Circulation Element.</b></p> <p>Policy 1.1. Multimodal network. The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.</p> <p>Policy 1.2. Transportation decisions. Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.</p> <p>Policy 1.4 and Policy 1.5</p>                                                                                                                                                                                                             |
| Improve modes through enhanced service, frequency, convenience, and choices.                                           | Consistent: Policies in the proposed General Plan would support this strategy.                                                  | <p><b>Mobility and Circulation Element.</b></p> <p>Policy 1.1 and Policy 1.5</p> <p>Policy 3.3. Pedestrian bridges. Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.</p> <p>Policy 4.2. Site design. Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.</p> <p>Policy 4.3. Intersections. Improve the safety and comfort of pedestrian and bicycle crossings at intersections.</p> <p>Policy 4.7. Transit stops. Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.</p> |

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Table 5.4-7 Orange County Subregional SCS Consistency Analysis

| Sustainability Strategies                                                                                                                                                                                                                  | Project Consistency                                                                                                    | Relevant General Plan Policies                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                            |                                                                                                                        | Policy 4.8. Bus rapid transit. Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.                                                                                                                   |
| Expand and enhance Transportation Demand Management practices to reduce barriers to alternative travel modes and attract commuters away from single occupant vehicle travel.                                                               | Consistent: The proposed General Plan includes policies that would support Transportation Demand Management practices. | <b>Mobility and Circulation Element.</b><br>Policy 1.1, Policy 1.2, Policy 1.5, Policy 3.3, Policy 4.2. , Policy 4.3. Policy 4.7, and Policy 4.8.                                                                                                                                            |
| Continue existing, and explore expansion of, highway pricing strategies.                                                                                                                                                                   | <b>Not Applicable:</b> This strategy is a regional strategy and is not applicable to the City of Los Alamitos and SOI. | <b>Not Applicable</b>                                                                                                                                                                                                                                                                        |
| Implement near-term (Transportation Improvement Program and Measure M2 Early Capital Action Plan) and long-term (LRTP 2035 Preferred Plan) transportation improvements to provide mobility choices and sustainable transportation options. | Consistent: The proposed General Plan would be consistent with this strategy.                                          | <b>Mobility and Circulation Element.</b><br>Policy 1.1, Policy 1.2, Policy 1.5, Policy 3.3, Policy 4.2. , Policy 4.3. Policy 4.7, and Policy 4.8.                                                                                                                                            |
| Acknowledge current sustainability strategies practiced by Orange County jurisdictions and continue to implement strategies that will result in or support the reduction of GHG emissions.                                                 | Consistent: The policies presented within this table would all contribute in reducing GHG emissions.                   | <b>Land Use Element.</b><br>Policy 1.4 and Policy 2.2<br><br><b>Open Space, Recreation, and Conservation Element.</b><br>Policy 4.1<br><br><b>Mobility and Circulation Element.</b><br>Policy 1.1, Policy 1.2, Policy 1.5, Policy 3.3, Policy 4.2. , Policy 4.3. Policy 4.7, and Policy 4.8. |

Source: OCTA 2011.

#### 5.4.4 Applicable General Plan Policies

The following are relevant policies of the General Plan Update that are designed to reduce potential GHG emissions impacts of future development in the City that would be accommodated by the General Plan Update.

##### Land Use Element

- **Policy 1.4 Vertical mixed-use** - Encourage development that provides retail on the ground floor and office, hotel, or residential uses on upper floors in the town center along Los Alamitos Boulevard.
- **Policy 2.2 Mix of land uses** - Maintain a balanced mix of residential, retail, employment, industrial, open space, and public facility land uses.

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#### Open Space, Recreation, and Conservation Element

- **Policy 2.2 Connectivity and image** - Improve existing and establish new trails along flood control facilities to link neighborhoods and public uses, augment local and regional bicycle systems, enhance the City's image, and attract recreational cyclists and other visitors to the town center.
- **Policy 3.1 Native plants** - Require the use of native and climate-appropriate plant species, and prohibit the use of plant species known to be invasive.
- **Policy 3.2 Urban forest** - Maintain and enhance a diverse and healthy urban forest on public and private lands. Incorporate and preserve mature and specimen trees at key gateways, landmarks, and public facilities.
- **Policy 4.1 Land use and transportation** - Reduce greenhouse gas and other local pollutant emissions through mixed-use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
- **Policy 4.3 Regional air quality** - Support regional efforts to reduce particulate matter and collaborate with other agencies to improve air quality at the emission source.
- **Policy 4.4 Low and zero emission vehicles** - Support development of private and public parking infrastructure facilitating the use of alternative fuel vehicles.
- **Policy 4.5 Energy and water conservation** - Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.
- **Policy 4.6 Irrigation** - Encourage the use of water-efficient irrigation systems and reclaimed water for irrigation.
- **Policy 4.9 Renewable Energy** - Promote the use of renewable energy sources to serve public and private sector development.

#### Mobility and Circulation Element

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.

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- **Policy 1.3 Downtown connectivity** - Downtown Los Alamitos shall be safely and comfortably accessible by car, by bike, or on foot while maintaining Los Alamitos Boulevard as a four-lane facility with sufficient space for turning movements and queuing space for school access.
- **Policy 1.5 Multimodal LOS** - Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.
- **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.
- **Policy 3.2 Active trips** - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.
- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.
- **Policy 4.1 Walkable business districts** - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business districts.
- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.
- **Policy 4.3 Intersections** - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.
- **Policy 4.4 Bicycle and pedestrian trails** - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.
- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.
- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.
- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.
- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.
- **Policy 5.1 Parking tools** - Support innovative parking techniques to maximize parking efficiency throughout the City, especially in the Downtown, including:
  - Shared parking

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- Unbundled parking
  - In-lieu parking fees
  - Parking management plans
  - Parking districts
- **Policy 5.5 Automobile parking demand** - Reduce automobile parking demand by improving public transit, bicycle, and pedestrian mobility.
  - **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.
  - **Policy 5.7 Motorcycle and scooter parking** - Encourage businesses to provide parking spaces specifically designed for motorcycles and motorized scooters.

### Housing Element

- **Policy Action 1.2** - Single-Family Rehabilitation Loan Program
- **Policy Action 2.3** - Energy Conservation
- **Policy Action 2.4** - Green Building Program
- **Policy Action 4.4** - Review and Revise Multi-Family Parking Requirements

## 5.4.5 Existing Regulations and Standard Conditions

### State

- California Global Warming Solutions Act (AB 32)
- Sustainable Communities and Climate Protection Act (SB 375)
- Greenhouse Gas Emission Reduction Targets (Executive Order S-3-05)
- Clean Car Standards – Pavely (AB 1493)
- Renewable Portfolio Standards (SB 1078)
- California Integrated Waste Management Act of 1989 (AB 939)
- California Mandatory Commercial Recycling Law (AB 341)
- California Advanced Clean Cars CARB (Title 13 CCR)
- Low-Emission Vehicle Program – LEV III (Title 13 CCR)
- Heavy-Duty Vehicle Greenhouse Gas Emissions Reduction Measure (Title 17 CCR)
- Low Carbon Fuel Standard (Title 17 CCR)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- California Water Conservation Act of 2009 (SBX7-7)
- Statewide Retail Provider Emissions Performance Standards (SB 1368).

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- Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools (13 CCR 2480)
- Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling (13 CCR 2485)
- In-Use Off-Road Diesel Idling Restriction (13 CCR 2449)
- Building Energy Efficiency Standards (Title 24, Part 6)
- California Green Building Code (Title 24, Part 11)
- Appliance Energy Efficiency Standards (Title 20)

### 5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.4-1.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.4-2** Federal, state, and local GHG reduction plans are necessary to achieve the long-term GHG reduction targets of Executive Order S-03-05.

### 5.4.7 Mitigation Measures

#### Impact 5.4-1

4-1 The City of Los Alamitos shall include the following actions in the City's Implementation Plan to ensure that the City continues on a trajectory that aligns with the long-term state GHG reduction goals of Executive Order S-03-05.

- Work with local and regional agencies to install appropriate recharging stations to support the use of electric vehicles. Work with developers to install recharging stations at appropriate activity and employment centers to support electric vehicle use.
- Conduct energy audits on all City facilities and incorporate cost-effective measures to increase energy efficiency.
- Public education on energy conservation. Coordinate with local utilities to provide energy conservation information to the public.
- Promote energy-efficient design features such as appropriate site orientation, renewable energy systems, use of lighter color roofing and building materials, and passive ventilation and cooling techniques.
- Seek grants and other outside funding for energy efficiency improvements to public or private facilities and structures.

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- Work with the Los Alamitos Unified School District, the City of Seal Beach, and Rossmoor to obtain grant funding, conduct planning, and construct new and improved existing bicycle and pedestrian facilities to provide safe routes to schools.
- Remove barriers that discourage active pedestrian and bicycle routes. Expand facilities and amenities that encourage active routes, such as increasing the number of Class II bike lanes along potential school routes, particularly those that parallel Los Alamitos Boulevard and Katella Avenue.
- Create and implement a pedestrian and bicycle master plan to identify improvements, timing, and funding mechanisms.
- Identify funding and design options for bicycle and pedestrian signage along bicycle routes, in the downtown, and at key trailheads or connection points, with an emphasis on connections to schools and the downtown. Bicycle signage should be consistent with signs of neighboring jurisdictions, yet distinct for Los Alamitos.
- Coordinate with neighboring jurisdictions on improving connections to existing and planning future bicycle and pedestrian trails.
- Work with OCTA and local businesses to enhance bus stops in Los Alamitos and Rossmoor.
- Coordinate with OCTA on its Long Range Transportation Plan to design bus rapid transit service and stop locations along Katella Avenue.
- Explore the use of parking meters along public streets and on City-owned lots, especially in the downtown.
- Identify opportunities for bicycle parking in the downtown, including the conversion of single parallel parking spaces along smaller side streets into on-street or curb-adjacent bicycle parking. Bike racks should serve as functional public art and can reflect the types of businesses or uses.

#### 5.4.8 Level of Significance After Mitigation

##### Impact 5.4-2

Mitigation Measure 4-1 would ensure that the City continues to implement actions that reduce GHG emissions from buildout of the General Plan Update. However, additional federal and state measures would be necessary to reduce GHG emissions to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. At this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under S-03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology (CCST 2012). Since no additional federal or state measures are currently

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available that would ensure that the City of Los Alamitos and Rossmoor could achieve an interim post-2020 target, Impact 5.4-2 would remain significant and unavoidable.

#### 5.4.9 References

- California Air Resources Board (CARB). 2014a, May 15. Proposed First Update to the Climate Change Scoping Plan: Building on the Framework, <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>.
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### 5.5 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Environmental Impact Report (DEIR) addresses the potential for implementation of the City of Los Alamitos General Plan Update to impact human health and the environment due to exposure to hazardous materials or conditions in the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmore. Background information on these safety hazards provides a basis for the siting of land uses that would reduce unreasonable risks and protect public health and welfare. Various federal and state programs that regulate the use, storage, and transportation of hazardous materials are also discussed in this section. Potential project impacts and appropriate mitigation measures or standard conditions are included as necessary.

#### 5.5.1 Environmental Setting

##### 5.5.1.1 REGULATORY SETTING

Hazardous materials are substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paint, pesticides, etc.) and manufacturing (e.g., of electronics, newspapers, plastic products, etc.). Examples of hazardous materials are petroleum, natural and synthetic gas, and other toxic chemicals that may be used in agriculture or commercial and industrial uses, businesses, hospitals, and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

The term “hazardous materials,” as used in this section, includes all materials defined in the California Health and Safety Code (H&SC):

A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment (H&SC Sections 25411 and 25501).

The term includes chemicals regulated as hazardous materials, wastes, or substances by the United States Department of Transportation (USDOT), the United States Environmental Protection Agency (EPA), the Department of Toxic Substances Control (DTSC), the California Governor’s Office of Emergency Services, and other agencies. “Hazardous waste” is any hazardous material that has been discarded, except those materials specifically excluded by regulation. Hazardous materials that have been intentionally disposed of or inadvertently released fall within the definition of “discarded” materials and can result in the creation of hazardous waste. Hazardous wastes are broadly characterized by their ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity. Federal and state hazardous waste definitions are similar, but contain enough distinctions that separate classifications are in place for federal Resource Conservation and Recovery

## 5. Environmental Analysis

### HAZARDS AND HAZARDOUS MATERIALS

Act (RCRA) hazardous wastes and state non-RCRA hazardous wastes. Hazardous wastes require special handling and disposal because of their potential to impact public health and the environment. Some materials are designated “acutely” or “extremely” hazardous under relevant statutes and regulations.

Hazardous materials and wastes can pose significant actual or potential hazards to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent these unwanted consequences. These regulatory programs are designed to reduce the danger that hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

#### Federal Regulations

##### *Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984*

The RCRA of 1976 is the principal federal law that regulates the generation, management, transportation, and disposal of hazardous waste. These laws provide for cradle-to-grave regulation of hazardous wastes. Hazardous waste management includes the treatment, storage, and disposal of hazardous waste. Any business, institution, or other entity that generates hazardous waste is required to identify and track it from the point of generation until it is recycled, reused, or disposed. DTSC is responsible for implementing the RCRA program and California’s own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency program, the California Environmental Protection Agency (Cal/EPA) has delegated enforcement authority to the County of Orange Environmental Health Division (EHD) for state law regulating hazardous waste producers or generators in Los Alamitos.

##### *Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986*

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as Superfund, established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased state involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, encouraged greater citizen participation in site cleanup decisions, and increased the size of the trust fund to \$8.5 billion. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priority List of Superfund sites.

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### HAZARDS AND HAZARDOUS MATERIALS

#### *Emergency Planning and Community Right-to-Know Act*

The Emergency Planning and Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted by Congress as the national legislation on community safety. This law helps local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored onsite to state and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies.

Section 3131 of EPCRA requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals, report offsite transfers of waste for treatment or disposal at separate facilities, develop pollution prevention measures and activities, and participate in chemical recycling. These annual reports are submitted to the EPA and state agencies. EPCRA Sections 301 through 312 are administered by the EPA's Office of Emergency Management. The EPA's Office of Information Analysis and Access implements the EPCRA Section 313 program. In California, SARA Title III is implemented through the California Accidental Release Prevention Program.

The EPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This online, publicly available, national digital database is called the Toxics Release Inventory (TRI) and was expanded by the Pollution Prevention Act of 1990.

#### *Toxic Substances Control Act*

The Toxic Substances Control Act of 1976 was enacted by Congress to give the EPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The EPA repeatedly screens these chemicals and can require reporting or testing of any that may pose an environmental or human health hazard. It can ban the manufacture and import of chemicals that pose an unreasonable risk. Also, the EPA has mechanisms in place to track the thousands of new chemicals with either unknown or dangerous characteristics that industries develop each year. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and TRI under EPCRA.

#### *Hazardous Materials Transportation Act*

The USDOT regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations (CFR). State agencies that have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). These agencies also govern permitting for hazardous materials transportation. Title 49 CFR reflects laws passed by Congress as of January 2, 2006.

#### *Federal Response Plan*

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies and the American Red Cross that: 1) provides the mechanism for coordinating delivery of federal assistance and

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### HAZARDS AND HAZARDOUS MATERIALS

resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; 2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and 3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a Presidential declaration of a major disaster or emergency.

#### *Regulatory Agencies*

Several federal agencies regulate hazardous materials. These include the EPA, the Occupational Safety and Health Administration (OSHA), and USDOT:

- **United States Environmental Protection Agency:** The EPA is the primary federal agency that regulates hazardous materials and waste. In general, the EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the RCRA and in cooperation with state and tribal partners, the Waste Management Division manages a hazardous waste program, an underground storage tank program, and a solid waste program, which includes development of waste reduction strategies such as recycling. The EPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations.
- **Occupational Safety and Health Administration:** OSHA oversees administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from manufacturers. Material safety data sheets describe the risks associated with particular hazardous materials, and proper handling and procedures. Employee training must include response and remediation procedures for hazardous materials releases and exposures.
- **US Department of Transportation:** The USDOT has developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. The US Postal Service has developed additional regulations for the transport of hazardous materials by mail. USDOT regulations specify packaging requirements for different types of materials.

#### **State Regulations**

##### *California Health and Safety Code and Code of Regulations*

California Health & Safety Code Chapter 6.95 and 19 California Code of Regulations (CCR) Section 2729 describe the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material inventory disclosing hazardous materials stored, used, or handled

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### HAZARDS AND HAZARDOUS MATERIALS

onsite. A business that uses hazardous materials, or mixtures containing them, in certain quantities must establish and implement a business plan.

#### *Tanner Act*

Although there are numerous state policies dealing with hazardous waste, the most comprehensive is the Tanner Act (Assembly Bill 2948), which was adopted in 1986. The Tanner Act governs the preparation of hazardous waste management plans and the siting of hazardous waste facilities in the State of California. To be in compliance with the Tanner Act, local or regional hazardous waste management plans need to include provisions that define (1 the planning process for waste management, (2 the permit process for new and expanded facilities, and (3 the appeals process to the state available for certain local decisions.

#### *Orange County Hazardous Waste Management Plan*

Developed pursuant to the Tanner Act (AB 2948), the Orange County Hazardous Waste Management Plan (HWMP) identifies current and projected future hazardous waste generation and management needs throughout the county. The HWMP provides a framework for the development of facilities to manage hazardous wastes (e.g., facility siting criteria). The county HWMP addresses only those hazardous waste issues with which local governments have responsibilities, namely land use decisions. The county and its cities are required to implement facility siting policies and criteria within local planning and permitting processes. Cities are required to take one of three actions:

1. Adopt a city hazardous waste management plan.
2. Incorporate by reference all applicable portions of the County HWMP into its general plan.
3. Enact an ordinance requiring all applicable land-use permitting and decisions to be consistent with the siting criteria in the county HWMP.

Hazardous waste facility siting criteria and permitting requirements are set forth in City of Los Alamitos Municipal Code Section 17.36.110.

#### *California State Aeronautics Act*

The State Aeronautics Act is implemented by the Caltrans Division of Aeronautics. The purpose of this Act is to: 1) foster and promote safety in aeronautics; 2) ensure that the state provides laws and regulations relating to aeronautics that are consistent with federal laws and regulations; 3) ensure that persons residing in the vicinity of airports are protected against intrusions by unreasonable levels of aircraft noise; and 4) develop informational programs to increase the understanding of current air transportation issues. The Caltrans Division of Aeronautics issues permits for and annually inspects hospital heliports and public-use airports, makes recommendations regarding proposed school sites within two miles of airport runways, and authorizes helicopter landing sites at or near schools.

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#### *California Building Code*

The state of California provided a minimum standard for building design through the 2010 California Building Code (CBC), which is in Part 2 of Title 24 of the CCR. The 2013 CBC is based on the 2012 International Building Code, modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by city and county building officials for compliance with the CBC.

#### *California Fire Code (2013)*

CCR Title 24 Part 9 is the California Fire Code (CFC). Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas. The Orange County Fire Authority provides fire protection services for the city and implements and enforces the CFC in Los Alamitos.

#### *Asbestos-Containing Materials Regulations*

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials (ACM). Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations, and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings that must be heeded and practices that must be followed to reduce risks of asbestos emissions and exposure. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

#### *Polychlorinated Biphenyls*

The EPA prohibited the use of polychlorinated biphenyls (PCBs) in the majority of new electrical equipment starting in 1979, and initiated a phase-out for much of the existing PCB-containing equipment. The inclusion and handling of PCBs in electrical equipment are regulated by the provisions of the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq. Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and outline highly specific safety procedures for their disposal. The State of California likewise regulates as hazardous waste PCB-laden electrical equipment and materials contaminated above a certain threshold; these regulations require that such materials be treated, transported, and disposed of accordingly. At lower concentrations for nonliquids, regional water quality control boards may exercise discretion over the classification of such wastes.

#### *Lead-Based Paint*

CCR Title 8, Section 1532 is the California Occupational Safety and Health Administration's (Cal/OSHA) Lead in Construction Standard. The regulations address permissible exposure limits; exposure assessment;

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### HAZARDS AND HAZARDOUS MATERIALS

compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection; employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

#### *State Agencies*

Responsible state agencies that regulate hazardous materials and waste in accordance with the federal and state laws include:

- **California Environmental Protection Agency:** Cal/EPA was created in 1991 by Governor Executive Order W-5-91. Several state regulatory boards, departments, and offices were placed under the Cal/EPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of state resources. Among those responsible for hazardous materials and waste management are the DTSC, Department of Pesticide Regulation, and Office of Environmental Health Hazard Assessment. Cal/EPA also oversees the unified hazardous waste and hazardous materials management regulatory program (Unified Program), which consolidates and coordinates:
  - Hazardous Materials Release Response Plans and Inventories (Business Plans)
  - Underground Storage Tank Program
  - Aboveground Petroleum Storage Tank Act
  - Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
  - California Uniform Fire Code: Hazardous Material Management Plans and Inventory Statements
  - California Accidental Release Prevention Program.
- **California Department of Toxic Substances Control:** The DTSC is a department of Cal/EPA and is authorized to carry out the federal RCRA program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California, primarily under the authority of the RCRA and in accordance with the California Hazardous Waste Control Law (California H&SC Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22 CCR, Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.
- **California Division of Occupational Safety and Health:** Like OSHA at the federal level, Cal/OSHA is the responsible agency for ensuring workplace safety. Cal/OSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or buildings.



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- **Santa Ana Regional Water Quality Control Board:** The Santa Ana Regional Water Quality Control Board (RWQCB) is authorized by the State Water Resources Control Board (SWRCB) to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the Santa Ana RWQCB authority to require investigations when the quality of groundwater or surface waters of the state is threatened, and to require remediation actions, if necessary.

### Local Regulations

#### *Airport Environs Land Use Plan for the Los Alamitos Joint Forces Training Base*

Approximately 50 percent of the City's total land area is occupied by the Los Alamitos Joint Forces Training Base (JFTB; see Figure 2, *Citywide Aerial*). The Los Alamitos JFTB is home to an Army Aviation Support Facility and the 1st Battalion of the 140th Aviation Regiment of the California Army National Guard, as well as other units not related to aviation. The Los Alamitos JFTB is within the oversight of the Orange County Airport Land Use Commission (ALUC), which is required to prepare and adopt an airport land-use plan for each of the airports in its jurisdiction. The Airport Environs Land Use Plan (AELUP) for the JFTB was issued by ALUC in 2002. The AELUP is a land-use compatibility plan that is intended to protect the public from adverse effects of aircraft noise, ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and ensure that no structures or activities adversely affect navigable space. The AELUP identifies standards for development in the airport's planning area based on noise contours, accident-potential zones, and building heights. ALUCs are authorized under state law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for ALUCs are noise, safety hazards, and airport operational integrity.

The City falls within the airport planning area of the Los Alamitos JFTB; land uses within the airport planning-area boundaries are required to conform to safety, height, and noise restrictions established in the AELUP for the JFTB. The JFTB has two runways, 8,000 feet long and 5,900 feet long, both aligned northeast-southwest. One type of safety compatibility zone, the Clear Zone (or Runway Protection Zone), encompasses each end of the pair of runways. As shown in Figure 5.5-1, *Los Alamitos JFTB Impact Zones*, the Clear Zones are limited to within the Los Alamitos JFTB boundaries. The entire City and SOI fall within the height restriction zone for the JFTB, which is 20,000 feet in radius surrounding the runways and has a 1:100 slope (see Figure 5.5-2, *Height Restriction Zone*). Additionally, with respect to building heights, development proposals within the City that include the construction or alteration of structures more than 200 feet above mean sea level (amsl) require filing with the Federal Aviation Administration (FAA) and notification to the ALUC, including filing of a Notice of Proposed Construction or Alteration (FAA Form 7460-1). Any development project that would penetrate the Federal Aviation Regulations (FAR) Part 77 Notification Surface for the JFTB is also required to file FAA Form 7460-1. Furthermore, portions of the City fall within the 60 and 65 dBA CNEL<sup>1</sup> noise contours of the Los Alamitos JFTB (see Figure 5.5-1). ALUC review is required for adoptions of, or amendments to a General Plan or Specific Plan; zoning ordinance; Master Plan for public use airports; and heliports within the airport influence area (Public Utilities Code Sections 21676(b), 21676(c), 21664.5, and 21661.5). However, ALUC review is also required for all discretionary

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<sup>1</sup> A dBA is an A-weighted decibel. The Community Noise Equivalent Level (CNEL) is the energy-average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the levels from 7:00 PM to 10:00 PM and 10 dB added from 10:00 PM to 7:00 AM.

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projects if the ALUC has not yet determined that the General Plan is consistent with the AELUP or the local agency has overruled the ALUC (Public Utilities Code Section 21676.5).

#### *City of Los Alamitos Municipal Code*

Chapter 8.20, Hazardous Material Disclosure, of the Los Alamitos Municipal Code establishes a system of disclosure that provides information essential to firefighters, health officials, planners, elected officials, and other emergency service personnel in meeting their responsibilities for the health and welfare of the community. Chapter 8.20 also implements the community's right and need for basic information about the use and disposal of hazardous materials in Los Alamitos and provides for an orderly system for the provision of such information.

Chapter 17.36, Hazardous Waste Facility, of the Los Alamitos Municipal Code establishes uniform standards, land-use regulations, and a permit process for controlling the location, design, maintenance, and safety of offsite hazardous waste facilities. The specific requirements of Chapter 17.36 are applicable to the siting and development of offsite hazardous waste treatment, storage, transfer, and disposal facilities. Chapter 17.36 also implements general plan policies regarding hazardous waste management facilities pursuant to Assembly Bill 2948, Senate Bill 477, Section 6.5 of the California H&SC, and Program A-3 in the Orange County HWMP.

#### *Local Agencies*

Local agencies that regulate hazards and hazardous materials include:

- **Orange County Environmental Health Department:** A Certified Unified Program Agency (CUPA) is a local agency that has been certified by Cal/EPA to implement the local Unified Program. The CUPA can be a county, city, or joint-powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within its jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by Cal/EPA to become a CUPA but is the responsible local agency that would implement the six Unified Programs outlined above until it is certified. Currently, there are 83 CUPAs in California. The Orange County EHD is the certified CUPA for Los Alamitos and consolidates and coordinates:
  - Hazardous Materials Business Plans
  - California Accidental Release Prevention Program
  - Underground Storage Tank (UST) Program
  - Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
  - California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements
- **Orange County Fire Authority:** The OCFA administers the:
  - California Fire Code (with local amendments)
  - Hazardous Materials Business Plans (California Health & Safety Code Chapter 6.95)

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- Aboveground Storage Tanks Program (California Health & Safety Code Chapter 6.67)

#### 5.5.1.2 EXISTING CONDITIONS

##### Historic Land Uses

###### *Los Alamitos*

The first school in Los Alamitos was built in 1881 and the Township of Los Alamitos was planned in 1896. The first sugar refinery in southern California was built in the town, operating until 1933. The Town of Los Alamitos expanded greatly after the Los Alamitos JFTB (formerly the Naval Reserve Air Base) began operating in 1942. The City of Los Alamitos was incorporated in 1960. The Los Alamitos Medical Center was founded in 1968. Rossmoor was developed between 1955 and 1961.

###### *Los Alamitos JFTB*

The Los Alamitos JFTB began operating in 1942. It was transferred to the US Army in 1977, and has since been operated by the California National Guard.

###### *Historic Aerial Photographs*

A 1952 aerial photograph shows the Los Alamitos JFTB and developed areas along its north side and at its northwest corner. By 1972 the City and Rossmoor were largely built out, as they are today (NETR 2014).

###### *Historic Topographic Maps*

Two structures are shown in an 1899 topographic map on the present site of Los Alamitos. A 1935 topographic map shows slightly less than one-half square mile of developed area, most of which is in a rectangular area at the southeast corner of Katella Avenue and Los Alamitos Boulevard. A 1950 map shows similar developed area and the Los Alamitos JFTB. A 1981 topographic map shows the City and SOI built out much as they are today (USGS 2014).

##### Hazardous Materials Sites

California Government Code Section 65962.5 requires Cal/EPA to compile, maintain, and update the following lists of hazardous material release sites. California Environmental Quality Act (CEQA) Guidelines (California Public Resources Code Section 21092.6) require the lead agency to consult these lists to determine whether the project and any alternatives are identified.

- **EPA National Priorities List:** Lists all sites under the EPA's Superfund program, which was established to fund cleanup of contaminated sites that pose risk to human health and the environment.
- **EPA Comprehensive Environmental Response, Compensation, and Liability Information System and Archived Sites:** List contains 15,000 sites nationally identified as hazardous. This would also involve a review for archived sites that have been removed from CERCLIS due to No Further Remedial Action Planned status.

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- **EPA Resource Conservation and Recovery Act Information System:** A national inventory system for hazardous waste handlers. Generators, transporters, handlers, and disposers of hazardous waste are required to provide information for this database.
- **DTSC Cortese List:** DTSC maintains the Cortese List as a planning document for use by state and local agencies to comply with the CEQA requirements to provide information about the locations of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database.
- **DTSC HazNet:** A database for tracking hazardous waste shipments.
- **SWRCB Leaking Underground Storage Tank Information System:** An inventory of USTs and leaking USTs, which tracks unauthorized releases.

The required lists of hazardous material release sites are commonly referred to as the “Cortese List” after the legislator who authored the legislation. Because the statute was enacted more than 20 years ago, some of the provisions refer to agency activities that were conducted many years ago and are no longer being implemented; and, in some cases, the information to be included in the Cortese List does not exist. Those requesting a copy of the Cortese List are now referred directly to the appropriate information resources on websites hosted by the boards or departments referenced in the statute, including DTSC’s online EnviroStor database and the SWRCB’s online GeoTracker database. These two databases include hazardous material release sites and other categories of sites or facilities specific to each agency’s jurisdiction. A search of commonly accessed online databases on December 2, 2013, identified the following information potentially relevant to the proposed project:

#### *EnviroStor*

The EnviroStor database, maintained by the DTSC, identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes federal Superfund sites on the National Priorities List, state response sites, voluntary cleanup sites, school investigation and cleanup sites, corrective action sites, and tiered California permit sites. It also includes sites that are being investigated for suspected but unconfirmed contamination. A search of this database, using zip codes within the jurisdictional boundaries of the City of Los Alamitos and Rossmoor, including the unincorporated Stanford lands, found the facilities listed in Table 5.5-1, *EnviroStor Cleanup Program Sites in Los Alamitos*.

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### HAZARDS AND HAZARDOUS MATERIALS

**Table 5.5-1 EnviroStor Cleanup Program Sites in Los Alamitos**

| Site Name                                          | Address                 | Site Type                | Status                      | Potential Chemicals of Concern                                                                                                                                                                                                                                                                                                                                                | Potential Media of Concern                  |
|----------------------------------------------------|-------------------------|--------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Safety-Kleen Los Alamitos                          | 3876 Florista St        | Hazardous Waste Facility | Historical Non-Operating    | Not available                                                                                                                                                                                                                                                                                                                                                                 | Not available                               |
|                                                    |                         | Corrective Action        | Active                      | Arsenic, Benzene, Total chromium, Lead, MTBE, Tetrachloroethylene (PCE), 1,1,1-Trichloroethane (TCA), Trichloroethylene (TCE), Vinyl chloride, Acetochlor, Barium and compounds, Chlorobenzene, Cobalt, Copper and compounds, Dichlorobenzene, Dichloroethane, Dichloroethylene, Ethylbenzene, Nickel, Thallium and compounds, Toluene, Vanadium and compounds, Xylenes, Zinc | Groundwater other than drinking water, Soil |
| Federal Mogul Corp - Arrowhead Products            | 4411 Katella Avenue     | Evaluation               | Refer: Local Agency         | Alkaline Solution Without Metals; Unspecified Acid Solution; Unspecified Aqueous Solution; Unspecified Solvent Mixtures; Asbestos Containing Materials (ACM)                                                                                                                                                                                                                  | None specified                              |
| Velsicol Chemical Company                          | 3342 Cerritos Avenue    | Historical               | Refer: Other Agency         | None specified                                                                                                                                                                                                                                                                                                                                                                | None specified                              |
| Los Alamitos Rad Bomb/Score Site                   |                         | Military Evaluation      | Inactive - Needs Evaluation | Explosives (UXO, MEC)                                                                                                                                                                                                                                                                                                                                                         | None specified                              |
| NAS Los Alamitos (now JFTB)                        |                         | Military Evaluation      | Inactive - Needs Evaluation | None specified                                                                                                                                                                                                                                                                                                                                                                | None specified                              |
| Los Alamitos Elementary School - Railroad Easement | 10862 Bloomfield Street | School Cleanup           | Active                      | Arsenic, Polynuclear aromatic hydrocarbons (PAHs)                                                                                                                                                                                                                                                                                                                             | Soil                                        |
| Los Alamitos Elementary School Easement            | 10862 Bloomfield Street | School Cleanup           | Inactive - Action Required  | Polychlorinated biphenyls (PCBs), Total Petroleum Hydrocarbons-diesel                                                                                                                                                                                                                                                                                                         | Soil, soil vapor, surface water             |
| Los Alamitos High School                           | 3591 Cerritos Avenue    | School Investigation     | No Further Action           | Arsenic, Benzene, Chlordane, DDD, DDE, DDT, Methyl tertbutyl ether (MTBE)                                                                                                                                                                                                                                                                                                     | Soil, soil vapor                            |
| Joint Forces Training Base, Los Alamitos           | Lexington & Farquhar    | State Response           | No Further Action           | Dichloropropane, Lead, Aminodinitrotoluene, Trinitrobenzene, Trinitrophenylmethyl nitramine, Trinitrotoluene, Zinc                                                                                                                                                                                                                                                            | Soil                                        |
| Los Alamitos Medical Center                        | 3876 Florista Street    | Voluntary Cleanup        | Active                      | None specified                                                                                                                                                                                                                                                                                                                                                                | IA                                          |

Source: DTSC 2013

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#### GeoTracker

The GeoTracker database, maintained by the SWRCB, lists a range of types of hazardous materials sites that could affect groundwater quality, including leaking underground storage tank sites, cleanup program sites, land disposal sites, and military sites, as shown in Table 5.5-2, *GeoTracker Sites in Los Alamitos*.

**Table 5.5-2 GeoTracker Sites in Los Alamitos**

| Site Name                                                                                               | Address                                            | Status                      | Potential Chemicals of Concern                                                                                                                                                                                                                                                                           | Potential Media of Concern                   |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Cleanup Program Sites</b><br>1 open case described below + 1 closed case.                            |                                                    |                             |                                                                                                                                                                                                                                                                                                          |                                              |
| Best Cleaners                                                                                           | 11139 Los Alamitos Blvd.                           | Open - Remediation          | Solvents, Tetrachloroethylene (PCE)                                                                                                                                                                                                                                                                      | Aquifer used for drinking-water supply       |
| <b>Leaking Underground Storage Tank (LUST) Sites</b><br>10 open cases described below + 25 closed cases |                                                    |                             |                                                                                                                                                                                                                                                                                                          |                                              |
| Texaco                                                                                                  | 3311 Katella                                       | Open - Eligible for Closure | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Tosco - 76 #5511                                                                                        | 5100 Katella                                       | Open - Eligible for Closure | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Shell Oil                                                                                               | 10961 Los Alamitos                                 | Open - Eligible for Closure | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Mobil #18-Gq0                                                                                           | 3971 Cerritos                                      | Open - Eligible for Closure | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Texaco                                                                                                  | 11250 Los Alamitos                                 | Open - Eligible for Closure | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Chevron #20-6285                                                                                        | 10471 Los Alamitos                                 | Open - Remediation          | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Rossmoor Car Wash                                                                                       | 11031 Los Alamitos                                 | Open - Remediation          | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Bixby Land Co                                                                                           | 3502 Cerritos                                      | Open - Remediation          | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Unocal #4727                                                                                            | 3501 Cerritos                                      | Open - Site Assessment      | Gasoline                                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| Safety-Kleen Corporation                                                                                | 3876 Florista St                                   | Open - Site Assessment      | Chlorinated Hydrocarbons                                                                                                                                                                                                                                                                                 | Aquifer used for drinking water supply       |
| <b>Military Cleanup Sites</b><br>3 open cases described below + 20 closed cases                         |                                                    |                             |                                                                                                                                                                                                                                                                                                          |                                              |
| Los Alamitos JFTB                                                                                       | OU-1 - Hangar 2/Building 9                         | Open - Remediation          |                                                                                                                                                                                                                                                                                                          |                                              |
| Los Alamitos JFTB                                                                                       | Installation Restoration Program, Lexington Street | Open - Remediation          | Benzene, Other Chlorinated Hydrocarbons, Tetrachloroethylene (PCE), Toluene, Trichloroethylene (TCE), Xylene, Dioxin / Furans, Polychlorinated biphenyls (PCBs), Arsenic, Lead, Other Metal, Aviation, Diesel, MTBE / TBA / Other Fuel Oxygenates, Gasoline, Heating Oil / Fuel Oil, Waste Oil / Motor / | Aquifer used for drinking-water supply, Soil |

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### HAZARDS AND HAZARDOUS MATERIALS

**Table 5.5-2 GeoTracker Sites in Los Alamitos**

| Site Name                                                                                       | Address                                                | Status                         | Potential Chemicals of Concern                                      | Potential Media of Concern                               |
|-------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------|---------------------------------------------------------------------|----------------------------------------------------------|
|                                                                                                 |                                                        |                                | Hydraulic / Lubricating, Polynuclear aromatic hydrocarbons (PAHs)   |                                                          |
| Los Alamitos JFTB                                                                               | OU-3 - Landfill And Aircraft Buffer Zone               | Open - Verification Monitoring |                                                                     | Aquifer used for drinking-water supply, Soil             |
| <b>Military Underground Storage Tank Sites</b><br>4 open cases described below + 7 closed cases |                                                        |                                |                                                                     |                                                          |
| Los Alamitos JFTB                                                                               | Bldg. 37 Aircraft Parking Ramp                         | Open - Remediation             | Petroleum, Diesel                                                   | Other Groundwater (uses other than drinking water), Soil |
| Los Alamitos JFTB                                                                               | PCA - Building 34 Site, 4250 Constitution Ave          | Open - Remediation             | Gasoline, Diesel                                                    | Aquifer used for drinking-water supply                   |
| Los Alamitos JFTB,                                                                              | Building 244 - Four Seasons Gas Station Site Lexington | Open - Remediation             | MTBE / TBA / Other Fuel Oxygenates, Gasoline                        | Aquifer used for drinking-water supply, Soil             |
| Los Alamitos JFTB,                                                                              | PCA - Building 43 Site Aircraft Parking                | Open - Site Assessment         | Heating Oil / Fuel Oil, Waste Oil / Motor / Hydraulic / Lubricating | Soil                                                     |
| Source: SWRCB 2013                                                                              |                                                        |                                |                                                                     |                                                          |

### *EnviroMapper*

The EnviroMapper database, identifies large hazardous waste generators, air toxics emitters, wastewater dischargers. Large-quantity generators are those that generate 1,000 kilograms or more per month of hazardous waste, or more than 1 kilogram per month of acutely hazardous waste. Small-quantity generators generate 100 to 999 kilograms per month of hazardous waste. Conditionally exempt small-quantity generators generate 100 kilograms or less per month, or 1 kilogram or less per month of acutely hazardous waste, or less than 100 kilograms per month of acute spill residue or soil. Los Alamitos has an industrial area in the northeastern portion of the City. A search of the EnviroMapper database, maintained by the EPA, found a number of hazardous waste generators, as shown in Table 5.5-3.

**Table 5.5-3 EnviroMapper Facilities in Los Alamitos**

| Facility Name                                 | Address                  |
|-----------------------------------------------|--------------------------|
| <b>Hazardous Waste Generators<sup>1</sup></b> |                          |
| A E I                                         | 3831 Catalina #A         |
| Alliance Spacesystems LLC                     | 4398 Corporate Center Dr |
| Arrowhead Products Corp LQG                   | 4411 Katella Ave.        |
| Bearing Inspection Inc                        | 4422 Corporate Ctr Dr    |
| Briggeman Disposal Service Inc                | 3551 Sausalito           |
| Cal-Pacific Insulation Inc                    | 10447 Los Alamitos Blvd  |
| Cal-Therm Co                                  | 10621 Bloomfield #20     |

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Table 5.5-3      EnviroMapper Facilities in Los Alamitos

| Facility Name                                                   | Address                     |
|-----------------------------------------------------------------|-----------------------------|
| Cerritos Service [Mobil #18-Gq0]                                | 3971 Cerritos Ave           |
| Continental Packaging Co                                        | 10722 Reagan St             |
| CVS Pharmacy No. 4043 LQG                                       | 3401 Katella Ave            |
| Dart Rollformers, Inc.                                          | 3651 Sausalito              |
| Deanco Concrete Cutting                                         | 10621 Bloomfield Ave        |
| Delaney Sash & Door Co                                          | 10850 Portal Dr             |
| Dept. of Army HG 63RRC LQG                                      | 3925 Saratoga               |
| Diversicare                                                     | 4290 Katella Ave            |
| Emergency Power Service                                         | 10331 Los Alamitos Blvd     |
| Envirocon Inc                                                   | 10570 Humbolt               |
| Environmental Enhancement Corp.                                 | 3355 Cerritos Ave           |
| Evergreen Pharmaceutical Of California Db<br>Pharmacy Advantage | 10751 Noel St               |
| Farwell And Sons LLC                                            | 10681 Oak St                |
| Fashion Award Cleaners                                          | 11304 Los Alamitos Blvd     |
| Fluorocarbon Msd                                                | 10871 Kyle St               |
| Fowler Engineering Company Inc                                  | 10844 Los Vaqueros Circle   |
| Granada Cleaners                                                | 3391 Katella Ave            |
| Health Science Associates                                       | 10941 Bloomfield St - Ste A |
| Honda Auto Parts Service                                        | 10385 Los Alamitos Blvd     |
| Hopkinson (Francis) Elementary                                  | 12582 Kensington Road       |
| HQ 63d Reg. Readiness Command                                   | 4235 Yorktown Ave           |
| Innovative Environmental Products Inc                           | 10865 Portal Dr             |
| Jiffy Lube #1740                                                | 3311 Katella Ave            |
| Joe Sockett And Sons                                            | 10806 Los Alamitos          |
| K & A Import Services                                           | 11061 Winners Circle        |
| Katella Cleaners                                                | 3624 Katella Avenue         |
| Kimberly Machine                                                | 10621 Bloomfield Ave        |
| Lew Webbs Aero Motors                                           | 10650 Los Alamitos          |
| Lienett Company Inc                                             | 3751 Catalina St            |
| Lindow Engineering And Machine                                  | 10891 Kyle St               |
| Lee Elementary School                                           | 11481 Foster Road           |
| Oak Jr. High                                                    | 10821 Oak Street            |
| Los Alamitos Elementary School Easement                         | 10862 Bloomfield St.        |
| Los Alamitos Firestone                                          | 11121 Los Alamitos          |
| Los Alamitos High                                               | 3591 Cerritos Ave.          |



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**Table 5.5-3 EnviroMapper Facilities in Los Alamitos**

| Facility Name                                   | Address                      |
|-------------------------------------------------|------------------------------|
| Los Alamitos Internal Med. Grp.                 | 3801 Katella Ave Ste 301     |
| Los Alamitos McAuliffe Mid. School              | 4112 Cerritos Ave            |
| Los Alamitos Shell                              | 10961 Los Alamitos Blvd      |
| Los Alamitos USD                                | 10293 Bloomfield St          |
| Los Angeles ARCO                                | 11171 Los Alamitos Blvd      |
| Mac Murry Cleaners                              | 3271 Donni W Ann Rd          |
| Magic Cleaners                                  | 4276 Katella Ave             |
| Mastercraft Carb Shop Inc                       | 10621 Bloomfield Ste E       |
| Minirem Corp.                                   | 10621 Bloomfield St Suite 38 |
| Monte Collins Backhoe & Eqpmt Inc               | 3342 Cerritos Ave            |
| Mr C's Custom Auto Elec.                        | 10821 Bloomfield Ave Ste C   |
| Nafees Cleaners                                 | 10956 Los Alamitos Blvd      |
| Norms Automotive Svc.                           | 3432 Sausalito St            |
| Otto Ehmgig And Co.                             | 3532 Katella Ave             |
| Precision Carburetion                           | 10350 Los Alamitos Blvd      |
| Prestige Cleaners                               | 10774 Los Alamitos Blvd      |
| Rossmoor School                                 | 3272 Shakespeare Dr          |
| Saddleback Aerospace Inc                        | 10523 Humbolt St             |
| Safety-Kleen Corporation 7 088 05               | 3876 Florista St             |
| Santa Ana Equipment Rentals                     | 3686 Cerritos Ave            |
| Screen Gems                                     | 10741 Reagan St              |
| Screen Gems                                     | 10571 Calle Lee Unit 145     |
| Sir Speedy Printing                             | 3978 Cerritos Ave            |
| Sunset Construction                             | 10542 Calle Lee Unit 114     |
| Texaco Service Station                          | 11250 Los Alamitos Blvd      |
| TGI                                             | 10852 Kyle St                |
| TGI                                             | 3882 Florista St             |
| Tilos European Autohaus Inc                     | 5300 Katella Ave             |
| Tilos European Autohaus Inc                     | 10701 Bloomfield St          |
| Tosco 05680                                     | 5100 Katella                 |
| Trend Offset Printing Services Incorporated LQG | 3791 Catalina Street         |
| Union Pump                                      | 10712 Reagan                 |
| United Technologies                             | 10641 Calle Lee Unit 185     |
| US Army Armed Forces Res Station LQG            | Saratoga St                  |
| Verizon Information Services                    | 3131 Katella Ave             |
| Warren Laboratories Inc                         | 10660 Humbolt St             |

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**Table 5.5-3 EnviroMapper Facilities in Los Alamitos**

| Facility Name                                                                            | Address                   |
|------------------------------------------------------------------------------------------|---------------------------|
| Warren Labs, Inc                                                                         | 10895 Portal Dr           |
| Wavell Huber Wood Product Inc.                                                           | 3801 Catalina Street      |
| West Coast Surgery Center                                                                | 3772 Katella Ave, Ste 107 |
| West Parker Body & Fender Shop Inc                                                       | 10841 Bloomfield Ave      |
| <b>Air Emissions: Stationary Sources (Regulated by EPA and State and Local Agencies)</b> |                           |
| Bau Furniture Manufacturing                                                              | 10551 Humbolt Street      |
| Bar Bakers                                                                               | 10711 Bloomfield St       |
| Trend Offset Printing Services Inc                                                       | 3722-3821 Catalina Street |
| <b>Permitted Wastewater Discharging Facilities</b>                                       |                           |
| GW Cleanup-Los Alamitos                                                                  | 4411 Yorktown Ave         |
| Storm, Washwater-Horse Stables                                                           | 4961 E Katella            |
| <b>Toxics Release Inventory Facilities</b>                                               |                           |
| Arrowhead Products Corp.                                                                 | 4411 Katella Ave.         |
| Sysmex Reagents America Inc.                                                             | 10716 Reagan St           |
| Trend Offset Printing Services, Inc.                                                     | 3791 Catalina Street      |
| Wavell Huber Wood Product, Inc.                                                          | 3801 Catalina Street      |

Source: USEPA 2013; USEPA 2012.

<sup>1</sup> Sites marked LQG are large-quantity generators. All others are small-quantity generators. LQG data are from 2011. An LQG generates over 1,000 kg (2,205 lbs) of hazardous waste, or 1 kg (2.2 lbs) of acutely hazardous waste during any month within the year.

<sup>2</sup> EnviroMapper listed the following additional sites that to the City's understanding are no longer hazardous waste generators; such as sites that are now vacant or where land uses have changed.

- American Hardwood Floors/Tessa Corp. 3712 Cerritos Ave: vacant
- Harbor Patterns Inc. 3271 Sausalito Ave. Now residential use (Olson Housing)
- Laurel Continuation High School. 10291 Bloomfield St.: Now School District headquarters offices only
- Mac Murray Cleaners. 3271 Donni W Ann Rd. Residential use.

### Airport-Related Hazards

The AELUP for the Los Alamitos JFTB was issued by the Orange County ALUC in 2002. Current and projected aviation operations at the JFTB are less than an average of 10 jet or 25 propeller-driven aircraft operations per day. The JFTB is home to an Army Aviation Support Facility and the 1st Battalion of the 140th Aviation Regiment of the California Army National Guard and other units not related to aviation. The Los Alamitos JFTB contains two runways, one 8,000 feet long and one 5,900 feet long, both aligned northeast–southwest (AirNav 2014).

### Clear Zone

One safety compatibility zone, the Clear Zone, surrounds each end of the pair of runways. The Clear Zone is limited to within the Los Alamitos JFTB boundaries (see Figure 5.5-1, *Los Alamitos JFTB Impact Zones*). The severe accident risk prohibits most land uses in this area. Also, the close proximity to aircraft operations limits land uses that would endanger such operations. Only airport-related uses and open-space uses, including

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### HAZARDS AND HAZARDOUS MATERIALS

agriculture and certain types of transportation and utility uses, are permitted. No buildings intended for human habitation are permitted in Clear Zones. Furthermore, uses in these areas must not attract birds; emit excessive glare or light; or produce or cause steam, smoke, dust, or electronic interference so as to interfere with or endanger aircraft operations (Orange County ALUC 2002).

#### *Height Restriction Zone*

The entire City and Rossmoor are within the height restriction zone for the JFTB. The height restriction zone is a 20,000-foot radius surrounding the runways and has a 1:100 slope. The airfield elevation, which is the base elevation for the height restriction zone, is 32 feet amsl. Thus, the height limit at the outer edge of the height restriction zone is 232 feet amsl. Height restrictions at three selected places in the City and Rossmoor are as shown below in Table 5.5-4, *Los Alamitos JFTB Height Restrictions*.

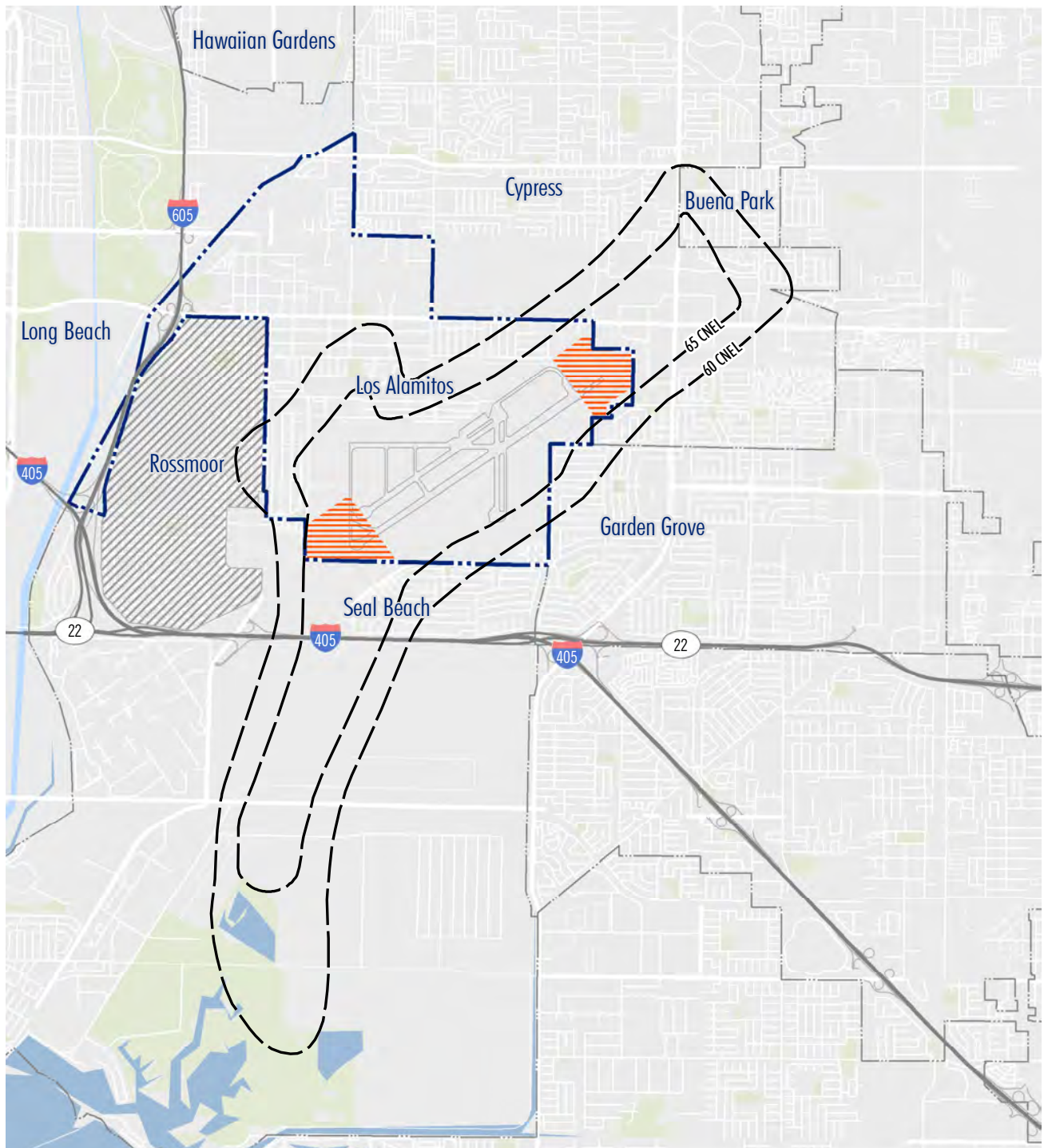
**Table 5.5-4 Los Alamitos JFTB Height Restrictions**

| Location                                                   | Distance from JFTB Runway | Height Restriction                                                             | Estimated Elevation at Location | Approximate Maximum Building Height at Location |
|------------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------|
| Los Alamitos Boulevard at Katella Avenue                   | 6,770 feet                | 6,770 feet/100 = 68 feet<br>+ airfield elevation = 32 feet<br>Total = 100 feet | 22 feet                         | 78 feet                                         |
| Center of Rossmoor (Saint Albans Drive at Silver Fox Road) | 5,575 feet                | 5,575 feet/100 = 56 feet<br>+ airfield elevation = 32 feet<br>Total = 88 feet  | 13 feet                         | 75 feet                                         |
| Near north end of City (Bloomfield Street at Ball Road)    | 8,565 feet                | 8,565 feet/100 = 86 feet<br>+ airfield elevation = 32 feet<br>Total = 118 feet | 28 feet                         | 90 feet                                         |

Source: Orange County ALUC 2002

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Figure 5.5-1 Los Alamitos JFTB Impact Zones



Source: Orange County Airport Land Use Commission, 2002

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#### 5.5.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- H-2 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.
- H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.
- H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- H-5 For a project 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 result in a safety hazard for people residing or working in the project area.
- H-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- H-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- H-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold H-5
- Threshold H-7
- Threshold H-8

These impacts will not be addressed in the following analysis.

#### 5.5.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.5.1:** Future construction and/or operational activities accommodated by the General Plan Update would involve the transport, use, and/or disposal of hazardous materials; however, existing federal, state, and local regulations would ensure risk are minimized. [Thresholds H-1, H-2, and H-3]

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**Impact Analysis:** Routine transport, use, and disposal of hazardous materials would be associated with new development, redevelopment, and demolition activities permitted under the General Plan Update. Industrial-grade chemicals would also continue to be transported, used, and disposed of consistent with current industrial operations in the City.

In general, implementation of the General Plan Update would increase the number of businesses and residents in the City, thereby increasing the amount of hazardous materials being transported, stored, and manufactured and the amount of people being exposed to these materials. While businesses/users are required by federal, state, and local regulations to properly transport, use, and dispose of hazardous materials, it is possible that upset or accidental conditions may arise that result in the release of hazardous materials into the environment.

Buildout of the General Plan Update would expand industrial uses, some of which would involve the transport, use, and/or disposal of hazardous materials. The General Plan Update includes two industrial land-use designations. A Limited Industrial designation for a specific area of the City explicitly permits forms of industrial, commercial recreation, and public/quasi-public uses that do not involve heavy equipment or large trucks. The Planned Industrial designation delineates the area intended to accommodate industrial businesses over the long term without encroachment by family-oriented, nonindustrial uses. Approximately 95 percent of the industrial land in the General Plan Update, 141 acres, would be Planned Industrial, which would be more likely to consist of land uses using substantial quantities of hazardous materials than would uses in the Limited Industrial designation.

Redevelopment under the General Plan may involve demolition of older buildings that contain ACM or lead-based paint (LBP). Future development requiring demolition would be required to comply with the California Health & Safety Code, OSHA, and South Coast Air Quality Management District Rule 1403 related to removal of ACMs and LBPs. Compliance would require the preparation of LBP and ACM surveys for any building demolitions and appropriate remediation measures for removal of these materials during demolition activities.

In addition to hazardous materials transported and/or used by local businesses, hazardous materials may be transported through the community to and from outside locations. Existing regulations address the transport of hazardous materials. Vehicles carrying hazardous materials are required to have placards that indicate at a glance the chemicals being carried and whether or not they are corrosive, flammable, or explosive. The conductors are required to carry detailed material data sheets for each of the substances on board. These documents are designed to help emergency response personnel assess the situation immediately upon arrival at the scene of an accident, and take the appropriate precautionary and mitigation measures. The California Highway Patrol is in charge of spills that occur in or along freeways, with Caltrans, Orange County Transportation Authority, Orange County EHD, and local sheriffs providing additional resources as needed.

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Existing regulations with respect to hazardous materials transportation, management, and disposal are designed to be protective of human health. The RCRA, EPCRA, state regulations, provisions of the Los Alamitos Municipal Code, and policies in the General Plan Update all minimize potential hazardous material impacts. Therefore, no significant impacts to the public or environment through the routine transport, use, or disposal of hazardous waste/materials are anticipated as a result of the proposed project.

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**Impact 5.5-2:** The City and Rossmoor are included on a list of hazardous materials sites; however, compliance with existing regulations would ensure hazards are remediated to the applicable state and federal standards. [Threshold H-4]

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**Impact Analysis:** There are 71 GeoTracker sites in Los Alamitos and Rossmoor, including 18 open cases; 10 EnviroStor sites, including eight open cases; and 86 hazardous materials generators listed on the RCRA database (see Tables 5.5-1 through 5.5-3). Of the 18 open GeoTracker cases, 15 are either eligible for closure or are undergoing remediation or verification monitoring.

Because there are numerous sites undergoing investigation and/or remediation within and adjacent to the City, impacts from hazardous substance at or adjacent to specific project developments in the City may occur. Future developments in the City in accordance with implementation of the General Plan Update may be impacted by hazardous substances remaining from historical operations, which may pose significant health risks. However, properties contaminated by hazardous substances are regulated at the local, state, and federal levels and are subject to compliance with stringent laws and regulations for investigation and remediation. For example, compliance with the CERCLA, the RCRA, CCR Title 22, and related requirements would remedy any potential impacts caused by hazardous substance contamination. Therefore, buildout of the General Plan Update would result in a less than significant impact upon compliance with existing laws and regulations.

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**Impact 5.5-3:** Buildout of the General Plan Update would place additional development and residents in the vicinity of the Los Alamitos Army Airfield; however, land uses would be compatible with the Airport Environs Land Use Plan. [Threshold H-6]

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**Impact Analysis:** The Los Alamitos JFTB, which includes Los Alamitos Army Airfield (AAF), occupies much of the southern part of the City.

#### Clear Zone

A Clear Zone is designated surrounding each end of the pair of runways. The Clear Zones are limited to within the Los Alamitos JFTB boundaries. Severe accident risks prohibit most land uses in this area. Also, the close proximity to aircraft operations limits land uses that would endanger such operations. Only airport-related uses and open space uses, such as agriculture and certain types of transportation and utility uses, are permitted. No buildings intended for human habitation are permitted in the Clear Zone. Approval and implementation of the General Plan Update would have no impact on land uses within the Clear Zone, as the City of Los Alamitos does not have authority over land uses on the JFTB. No impact regarding land-use regulation respecting airport-related hazards would occur.



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#### Height Restrictions

The AELUP also establishes horizontal and three-dimensional airspace where obstructions to aircraft movement are prohibited. The entire City and Rossmoor are within the height-restriction zone for the Los Alamitos JFTB. This is a 20,000-foot radius surrounding the runways and has a 1:100 slope. Building heights in the City are regulated under the City's Zoning Code (Municipal Code Title 17), not the General Plan; the General Plan Update does not propose changes to building-height standards in the Zoning Code. The maximum building heights allowed in the City and in the Rossmoor range from 75 to 90 feet above the ground surface, as shown above in Table 5.5-4. Maximum allowable heights of structures in commercial and industrial zoning districts in Los Alamitos are three stories or 40 feet; the maximum allowable heights of structures in a residential zoning district in Los Alamitos is 35 feet (City Municipal Code Sections 17.10.030 and 17.08.030, respectively). In commercial and industrial zoning districts and in the Town Center overlay district, buildings up to five stories or 60 feet high may be permitted with a Conditional Use Permit. Furthermore, new land uses built pursuant to the General Plan Update would be required to comply with standards outlined in the AELUP. This would ensure that land uses allowed under the proposed General Plan Update would not encroach into areas required for the safe takeoff and landing of aircraft at the Los Alamitos AAF. Compliance with these policies and land-use restrictions included in the airport's AELUP would minimize potential safety hazards for people residing and working near the Los Alamitos AAF. Therefore, no significant impacts relating to airport hazards are anticipated.

#### 5.5.4 Applicable General Plan Policies and Implementation Actions

##### Public Facilities and Safety Element

- **Policy 2.1 Police and fire service** - Maintain staffing, facilities, and training activities to effectively respond to emergency and general public service calls. Continue to contract fire protection services with the Orange County Fire Authority.
- **Policy 2.2 Public safety hot spots** - Prioritize improvement and enforcement activities to minimize existing and prevent future public safety hot spots.
- **Policy 2.3 Interagency support** - Participate in mutual aid system and automatic aid agreements to back up and supplement capabilities to respond to emergencies.
- **Policy 2.4 Interagency communications** - Maintain an effective communication system between emergency service providers within Los Alamitos, Rossmoor, and neighboring jurisdictions.
- **Policy 2.5 Emergency preparedness planning** - Maintain an emergency operations plan and an emergency operations center and develop a hazard mitigation plan to prepare for actual or threatened conditions of disaster or extreme peril.
- **Policy 2.6 Hazardous materials** - The use and storage of hazardous materials shall comply with applicable federal, state, and local laws to prevent and mitigate hazardous materials releases.

## 5. Environmental Analysis

### HAZARDS AND HAZARDOUS MATERIALS

#### 5.5.5 Existing Regulations and Standard Conditions

##### Federal

- **United States Code Title 42 Sections 9601 et seq.:** Comprehensive Environmental Response, Compensation and Liability Act and Superfund Amendments and Reauthorization Act.
- **United States Code Title 42, Sections 6901 et seq.:** Resource Conservation and Recovery Act.
- **United States Code Title 42 Sections 11001 et seq:** Emergency Planning & Community Right to Know Act.
- **Code of Federal Regulations Title 40 Part 61:** National Emission Standards for Hazardous Air Pollutants.
- **Code of Federal Regulations Title 14 Part 77:** Federal Aviation Administration Part 77 Regulations: Preservation of Navigable Airspace.

##### State

- **California Code of Regulations, Title 24, Part 2:** California Building Code
- **California Code of Regulations, Title 24, Part 9:** California Fire Code.
- **California Health and Safety Code Section 25199:** Tanner Act
- **California Health and Safety Code Sections 13000 et seq.:** fire regulations.

##### County of Orange

- **Orange County Airport Land Use Commission:** Airport Environs Land Use Plan for the Los Alamitos JFTB.

##### City of Los Alamitos: Municipal Code:

- **Chapter 8.20:** Hazardous Material Disclosure
- **Chapter 17.36:** Hazardous Waste Facility

#### 5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.5-1, 5.5-2, and 5.5-3.

#### 5.5.7 Mitigation Measures

No mitigation measures are required.

## 5. Environmental Analysis

### HAZARDS AND HAZARDOUS MATERIALS

#### 5.5.8 Level of Significance After Mitigation

Impacts would be less than significant and no mitigation measures are required.

#### 5.5.9 References

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## 5. Environmental Analysis

### 5.6 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use in Los Alamitos and its sphere of influence (SOI), the community of Rossmoor, from implementation of the Los Alamitos General Plan Update. This section is based on the proposed land-use plan, described in detail in Chapter 3, *Project Description*, and shown in Figure 3-5, *Proposed Land Use Plan*. The proposed goals and policies have been evaluated to determine their consistency with other relevant sections of the General Plan. Compatibility of the proposed land-use changes with the existing land uses in the surrounding area is also discussed in this section. The proposed project is also evaluated for consistency with the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the Airport Environs Land Use Plan (AELUP) for the Los Alamitos Joint Forces Training Base (JFTB).

Land-use impacts can be either direct or indirect. Direct impacts result in land-use incompatibilities, division of neighborhoods or communities, or interference with other land-use plans, including habitat or wildlife conservation plans. This section focuses on direct land-use impacts. Indirect impacts are secondary effects resulting from land-use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of this DEIR.

#### 5.6.1 Environmental Setting

##### 5.6.1.1 REGULATORY SETTING

State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the Los Alamitos General Plan Update are summarized below.

##### State

##### *State Planning Law and California Complete Streets Act*

State planning law (California Government Code Section 65300) requires every city in California to adopt a comprehensive, long-term general plan for physical development of the city and its SOI. A general plan should consist of an integrated and internally consistent set of goals and policies that are grouped by topic into a set of elements and are guided by a citywide vision. State law requires that a general plan address seven elements or topics (land use, circulation, housing, conservation, open space, noise, and safety), but allows some discretion on the arrangement and content. Additionally, each of the specific and applicable requirements in the state planning law should be examined to determine if there are environmental issues within the community that the general plan should address, including but not limited to hazards and flooding.

Additionally, on September 30, 2008, Assembly Bill 1358 (AB 1358), the California Complete Streets Act, was signed into law, becoming effective January 1, 2011. AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks.

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### LAND USE AND PLANNING

The proposed project's consistency with state planning law and the California Complete Streets Act is provided in the analysis for Impacts 5.11-1 and 5.11-3, and the City's mobility and circulation plan (as shown in Figures 5.11-3, *Existing and Planned Bicycle and Pedestrian Facilities*, and 5.11-5, *Proposed General Plan Roadway Classifications*, and identified in Section 5.11, *Transportation and Traffic*) provides for safe mobility for all users—bicyclists, pedestrians, transit riders, and motorists—appropriate to the function and context of each roadway.

### Regional

#### *Southern California Association of Governments*

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the South Coast Air Quality Management District, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plans most applicable to the proposed project are discussed below.

The Los Alamitos General Plan Update is considered a project of regionwide significance pursuant to the criteria outlined in SCAG's Intergovernmental Review Procedures Handbook (November 1995) and Section 15206 of the CEQA Guidelines. Therefore, this section addresses the proposed project's consistency with the applicable SCAG regional planning guidelines and policies.

#### *Regional Transportation Plan/Sustainable Communities Strategy*

On April 4, 2012, SCAG adopted the 2012–2035 RTP/SCS, “Towards a Sustainable Future,” which places a greater emphasis than ever on sustainability and integrated planning. The 2012–2035 RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. It includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375 (SB 375), improve public health, and meet the National Ambient Air Quality Standards set by the federal Clean Air Act. The 2012–2035 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play and how they will move around (SCAG 2012).

#### *High-Quality Transit Areas*

With the adoption of the 2012 RTP/SCS, the areas previously known as 2% Strategy Opportunity Areas were updated by SCAG and replaced with what are now called high-quality transit areas (HQTAs), which are a part of, and integrated into, the SCS portion (Chapter 4, *Environmental Setting*) of the 2012 RTP/SCS. An HQTAs is generally a walkable transit village or corridor that is within one half-mile of a well-served transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The overall

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land-use pattern of the 2012 RTP/SCS focuses jobs and housing in the region's designated HQTAs (SCAG 2012). As shown in Figure 4-1, *High Quality Transit Areas in the City of Los Alamitos*, portions of the City are identified as HQTAs in the 2012 RTP/SCS.

Separate goals, policies, or guidelines have not been adopted for HQTAs. The proposed project's consistency with the applicable RTP/SCS goals in Table 5.6-1, *Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals*, covers the proposed project's consistency with the designated HQTA.

#### Local

##### *Airport Environs Land Use Plan for the Los Alamitos Joint Forces Training Base*

Approximately 50 percent of the City's total land area is occupied by the Los Alamitos JFTB (see Figure 2, *Citywide Aerial*). The JFTB is home to an Army Aviation Support Facility and the 1st Battalion of the 140th Aviation Regiment of the California Army National Guard, as well as other non-aviation-related units. The JFTB is within the oversight of the Orange County Airport Land Use Commission (ALUC), which is required to prepare and adopt an airport land-use plan for each of the airports within its jurisdiction. The AELUP for the JFTB was issued by ALUC in 2002. The AELUP is a land-use compatibility plan that is intended to protect the public from adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable space. The AELUP identifies standards for development in the airport's planning area based on noise contours, accident-potential zones, and building heights. ALUC is an agency authorized under state law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for ALUCs are noise, safety hazards, and airport operational integrity.

The City falls within the airport planning area of the Los Alamitos JFTB; land uses within the airport planning area boundaries are required to conform to safety, height, and noise restrictions established in the AELUP for the JFTB. The JFTB contains two runways, one 8,001 feet long and one 5,902 feet long, both aligned northeast–southwest. One safety compatibility zone, the Clear Zone (or Runway Protection Zone), encompasses each end of the pair of runways. As shown in Figure 5.5-1, *Los Alamitos JFTB Impact Zones*, the Clear Zone is limited to within the JFTB boundaries. The entire City and SOI fall within the height restriction zone for the JFTB, which is a radius of 20,000 feet surrounding the runways and has a 1:100 slope. Additionally, with respect to building heights, development proposals within the City that include the construction or alteration of structures more than 200 feet above mean sea level require filing with the Federal Aviation Administration (FAA) and notification of ALUC, including filing of a Notice of Proposed Construction or Alteration (FAA Form 7460-1). Any development project that would penetrate the FAR Part 77 Notification Surface for Los Alamitos JFTB (notification area) is also required to file FAA Form 7460-1. Furthermore, portions of the City fall within the 60 and 65 decibel noise contours of the JFTB (see Figure 5.5-1). ALUC review is required for adoptions of, or amendments to a General Plan or Specific Plan; zoning ordinance; Master Plan for public use airports; and heliports within the airport influence area (Public Utilities Code Sections 21676(b), 21676(c), 21664.5, and 21661.5). However, ALUC review is also required for all

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discretionary projects if the ALUC has not yet determined that the General Plan is consistent with the AELUP or the local agency has overruled the ALUC (Public Utilities Code Section 21676.5).

The proposed project's consistency with the AELUP for the Los Alamitos JFTB is provided in the analysis for Impact 5.6-1

#### 5.6.1.2 EXISTING SETTING

The City is along the northwestern boundary of Orange County, approximately 23 miles south of downtown Los Angeles. As shown in Figure 3-1, *Regional Location*, the City is surrounded by highly urbanized areas of Orange and Los Angeles County and abuts or is near the cities of Long Beach, Seal Beach, Hawaiian Gardens, Cypress, and Garden Grove. Interstate 605 runs north-south along the City's western boundary. The City's SOI encompasses the unincorporated community of Rossmoor on the southwest side of the City (see Figure 3-2, *Citywide Aerial*).

#### Existing Land Uses

The City encompasses approximately 2,619 acres and its SOI extends to the 982-acre unincorporated community of Rossmoor. Approximately 50 percent of the City's total land area is occupied by the Los Alamitos JFTB, and the remaining area is developed with urban uses. As shown in Figure 3-3, *Existing Land Use*, and Table 4-1, *Existing Land Use Summary*, the urban uses throughout the City include Single Family Residential, Multi-Family Residential, Mobile Home Residential, General Office, Business Park, Medical Office, Commercial, Industrial, Public/Quasi-Public Facility, Parks, Water, and rights-of-way and easements. Parts of the Coyote Creek and Carbon Creek channels (approximately 45 acres) flow through the City and into the San Gabriel River farther south along the City's western boundary. The City has only three acres of vacant land.

#### Current General Plan and Land-Use Designations

The current Los Alamitos 2010 General Plan was adopted in May 1990, with multiple amendments since then, including a major amendment in 2000. The current General Plan has nine elements and provides the basis for current land-use designations in the City, which are described in Chapter 3, *Project Description*. Table 3-1, *Current General Plan Use and Buildout Projections*, outlines the existing land-use designations and provides a statistical development summary of the current General Plan. Figure 3-4, *Current Land Use Plan*, illustrates the location and distribution of land-use designations.

#### Current Zoning

The City's Zoning Code (Title 17 of the City's Municipal Code), provides the basis for current zoning designations and regulations in the City. The City's Zoning Map contains 8 base zoning districts (3 residential, 1 commercial, 1 office, 1 planned industrial development, 1 community facility, and 1 open space) and 1 overlay zone (Mobile Home Park).

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### 5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- LU-1      Physically divide an established community.
- LU-2      Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- LU-3      Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold LU-1
- Threshold LU-3

These impacts will not be addressed in the following analysis.

### 5.6.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.6-1:**      Implementation of the General Plan Update would not conflict with applicable plans adopted for the purpose of avoiding or mitigating and environmental effect. [Threshold LU-2]

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**Impact Analysis:** The proposed project is an update to the City of Los Alamitos General Plan. The General Plan Update is intended to shape development in the City over the next 20 or more years. The General Plan Update would reorganize the current General Plan into the following seven elements: Land Use; Economic Development; Open Space, Recreation, and Conservation; Mobility and Circulation; Housing; Public Facilities and Safety; and Growth Management. Table 3-2, *Land Use Designations*, outlines the proposed land use designations of the General Plan Update, while Table 3-3, *Proposed General Plan Land Use and Buildout Projections*, outlines the proposed land uses and details the projected population, employment, dwelling units, and nonresidential square footage of development planned for by the General Plan Update. The proposed land-use designations are also shown in Figure 3-5, *Proposed Land Use Plan*. As shown in Table 3-3, the General Plan Update would result in a total of 8,735 residential units, a population of 23,003 people, 8,881,442 square feet of nonresidential development, and 18,430 jobs in the City and unincorporated community of Rossmoor.



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### LAND USE AND PLANNING

As noted earlier, the Los Alamitos JFTB is within the City of Los Alamitos. The General Plan Update identifies the JFTB as Community & Institutional/JFTB (see Figure 3-5, *Proposed Land Use Plan*); however, the City has no jurisdiction or land-use authority on this US military installation. No changes are proposed to the land-use designations of the Los Alamitos JFTB under the General Plan Update.

Following is an analysis of the proposed project's consistency with the applicable state, regional, and local laws, regulations, plans, and guidelines.

#### State Planning Law and California Complete Streets Act Consistency

The General Plan Update has been prepared in accordance with state planning law in California Government Code Section 65300 *et seq.* The General Plan Update is meant to be a framework for guiding planning and development in Los Alamitos over the next 20 or more years and can be thought of as the blueprint for the City's growth and development. The General Plan Update is comprehensive in its geography and subject matter. It addresses the entire area within the City's boundary and SOI, and the full spectrum of issues associated with management of the City.

The General Plan Update is consistent with California Government Code Section 65302 because it addresses the seven required elements. More specifically, the General Plan Update involves a revision to the land-use map and reorganizes the current General Plan into seven elements, listed above. Throughout the various elements, the General Plan Update outlines development goals and policies and includes forecasts of long-term conditions; exhibits and diagrams; and objectives, principles, standards, and plan proposals. The proposed land-use plan (see Figure 3-5, *Proposed Land Use Plan*) and the goals and policies in the General Plan Update strive to preserve and ensure land-use compatibility throughout the City and Rossmoor.

Various elements of the General Plan Update contain policies that help the City implement AB 1358, the California Complete Streets Act (see policies listed below in Section 5.6.4, *Applicable General Plan Policies*). By implementing Complete Streets policies, the City would increase the number of trips made by alternative modes of travel (e.g., transit, bicycling, and walking), correspondingly reducing the number of vehicle trips and associated greenhouse gas emissions. An increase in transit trips, bicycling, and walking would thus help the City meet the transportation needs of all residents and visitors while reducing traffic congestion and helping meet the greenhouse gas reduction goals of AB 32, The Global Warming Solutions Act, and SB 375, which are implemented through SCAG's 2012–2035 RTP/SCS. Refer to Section 5.14, *Transportation and Traffic*, for a detailed discussion of the proposed project's consistency with AB 1358.

Each of the specific and applicable requirements in the state planning law have been examined and considered to determine if there are environmental issues within the City and its SOI that the General Plan Update should address, such as hazards and flooding. The various environmental issues associated with the proposed project (air quality, hazards, flooding, traffic, etc.) are addressed in their respective elements of the General Plan Update and in their respective topical sections in Chapter 5, *Environmental Analysis*, of this DEIR.

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### LAND USE AND PLANNING

#### SCAG 2012–2035 RTP/SCS Consistency

Table 5.6-1 provides an assessment of the proposed project's relationship to pertinent 2012–2035 SCAG RTP/SCS goals. The RTP/SCS goals are directed toward transit, transportation and mobility, and protection of the environmental and health of residents. Consistency with SCAG population growth projections are addressed separately in Section 5.8, *Population and Housing*. A general plan growth forecast typically exceeds the population and housing projections because buildout of the General Plan is not tied to a development timeline, whereas SCAG forecasts are demographic projections based on a time horizon. Therefore, the consistency analysis in Table 5.6-1 focuses on the broader policy-oriented goals of the RTP/SCS to determine consistency. The analysis in Table 5.6-1 concludes that the proposed project would be consistent with the applicable RTP/SCS goals. Therefore, implementation of the proposed project would not result in significant land-use impacts related to relevant RTP/SCS goals. Related General Plan Update policies in the table are provided at the end of this section.

**Table 5.6-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

| RTP/SCS Goal                                                                                                          | Project Compliance with Goal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Relevant General Plan Policies                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RTP/SCS G1: Align the plan investments and policies with improving regional economic development and competitiveness. | Not Applicable: This is not a project-specific goal and is therefore not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Not applicable                                                                                                                                                                                                                                |
| RTP/SCS G2: Maximize mobility and accessibility for all people and goods in the region.                               | <p><b>Consistent:</b> The transportation networks in Los Alamitos would be designed, developed, and maintained to meet the needs of local and regional transportation and to ensure efficient mobility and accessibility. A number of regional and local plans and programs would be used to guide development and maintenance of transportation networks in the City, such as:</p> <ul style="list-style-type: none"> <li>• City of Los Alamitos and County of Orange Traffic Impact Analysis Guidelines</li> <li>• Orange County Congestion Management Program</li> <li>• Caltrans Traffic Impact Studies Guidelines and Highway Capacity Manual</li> <li>• SCAG's 2012–2035 RTP/SCS</li> <li>• Assembly Bill 1358 (The California Complete Streets Act)</li> </ul> <p>Additionally, the City of Los Alamitos is required by the California Government Code to coordinate its Mobility and Circulation Element with regional transportation plans, including SCAG's 2012–2035 RTP/SCS. The Mobility and Circulation Element is a comprehensive transportation management strategy that addresses infrastructure capacity.</p> <p>The Land Use, Open Space, Recreation and Conservation, Mobility and Circulation, and Growth Management Elements of the General Plan Update contain policies that provide specific guidance for improving mobility in the City.</p> | <p>Land Use Element: 2.7, 5.4</p> <p>Open Space, Recreation, and Conservation: 2.2</p> <p>Mobility and Circulation: 1.1, 1.2, 1.3, 1.6, 1.7, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 4.1–4.8, 5.5, 5.6</p> <p>Growth Management: 1.3, 2.2, 2.3, 2.4</p> |

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### LAND USE AND PLANNING

**Table 5.6-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

| RTP/SCS Goal                                                                             | Project Compliance with Goal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Relevant General Plan Policies                                                                           |
|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                          | Refer to Section 5.11, <i>Transportation and Traffic</i> , which addresses local and regional transportation, traffic, circulation, and mobility in more detail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                          |
| RTP/SCS G3: Ensure travel safety and reliability for all people and goods in the region. | <p><b>Consistent:</b> All modes of public (motorized and nonmotorized) and commercial transit throughout the City would be required to follow safety standards established by corresponding state, regional, and local regulatory documents, standards, and regulations.</p> <p>For example, pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., City of Los Alamitos, County of Orange) and regional (e.g., SCAG, Caltrans) agencies. Additionally, pedestrian circulation systems are required to be designed and constructed for the use of people with disabilities, consistent with the Americans with Disabilities Act and state requirements. The City is also committed to ensuring that adequate pedestrian circulation is provided and maintained throughout the City. Planning for Complete Streets pays close attention to the needs of pedestrians in the planning of new and redeveloped areas. Pedestrian circulation planned as an overall system is important for assuring the safety of pedestrians and separating whenever possible pedestrians from automobile traffic. The reduction of pedestrian/vehicle conflicts is one of the most important goals of the Complete Streets concept.</p> <p>Furthermore, roadways for motorists must follow safety standards established for the local and regional plans mentioned in the analysis for RTP/SCS G2, as well as the City's adopted engineering standards for vehicular circulation improvements and systems. The provision of safe and reliable modes of transit throughout the City would be ensured through the City's development review and building plan check process.</p> <p>The Land Use, Open Space, Recreation and Conservation, Mobility and Circulation, and Growth Management Elements of the General Plan Update provide guidance and policies that promote the safe movement of people and goods, with importance placed on pedestrian and vehicular safety.</p> | Policies listed under RTP/SCS Goal G2 apply to this goal.                                                |
| RTP/SCS G4: Preserve and ensure a sustainable regional transportation system.            | <b>Consistent:</b> All new roadway developments and improvements to the existing transportation networks must be assessed with some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Open Space, Recreation, and Conservation: 2.2</p> <p>Mobility and Circulation: 1.7, 2.3, 4.4, 4.5</p> |

## 5. Environmental Analysis

### LAND USE AND PLANNING

**Table 5.6-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

| RTP/SCS Goal                                                        | Project Compliance with Goal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Relevant General Plan Policies                              |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|                                                                     | <p>existing traffic capacities and to determine the need for improving future traffic capacities. This is ensured through the City's development review and building plan check process.</p> <p>Additionally, the regional plans mentioned in the analysis for RTP/SCS G2 would be applicable to the design and development of the regional roadway network in and around the City.</p> <p>The Open Space, Recreation and Conservation, Mobility and Circulation, and Growth Management Elements of the General Plan Update encourage regional coordination of transportation issues and provide guidance and policies that help preserve and ensure a sustainable regional transportation system</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Growth Management: 1.3, 2.2, 2.3, 2.4</p>                |
| RTP/SCS G5: Maximize the productivity of our transportation system. | <p><b>Consistent:</b> The local and regional transportation system would be improved and maintained to maximize efficiency and productivity. The City's Public Works Department oversees the improvement and maintenance of all aspects of the City's public rights of way on a routine basis.</p> <p>The City also strives to maximize productivity of the local and regional public transportation system (e.g., buses and bicycle lanes) for residents, visitors, and workers coming into and out of Los Alamitos through the continued implementation and enhancement of the City's alternative modes of travel. For example, as shown in Figure 5.11-3, <i>Existing and Planned Bicycle and Pedestrian Facilities</i>, there are a number of bikeways throughout Los Alamitos, which also connect to the surrounding local and regional bikeway systems. The City also plans to develop a pedestrian and bicycle master plan, which will encourage the development of a safe and convenient bikeway system. The pedestrian and bicycle master plan would be consistent with the Orange County Transportation Authority's (OCTA) Commuter Bikeways Strategic Plan, focusing on strategies to make bicycle transportation a viable alternative to the private automobile.</p> <p>Additionally, as outlined in Policy 4.8 of the Mobility and Circulation Element, the City plans to implement bus rapid transit along Katella Avenue, with an emphasis on service to the Los Alamitos Medical Center and Downtown Los Alamitos. The City is also served by a number of public transit routes and facilities provided by OCTA.</p> <p>The Land Use, Open Space, Recreation and Conservation, Mobility and Circulation, and Growth Management Elements of the General Plan Update</p> | <p>Policies listed under RTP/SCS G2 apply to this goal.</p> |

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### LAND USE AND PLANNING

**Table 5.6-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

| RTP/SCS Goal                                                                                                                                                                                  | Project Compliance with Goal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Relevant General Plan Policies                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                               | contain guidance and policies to improve the City's transportation system.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                  |
| RTP/SCS G6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking). | <p><b>Consistent:</b> The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development would be encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. For example, individual development projects in the City are required to comply with the provisions of the 2008 Building and Energy Efficiency Standards and the 2010 Green Building Standards Code. Compliance with these provisions would be ensured through the City's development review and building plan check process.</p> <p>The City also strives to maximize protection of the environment and improvement of air quality by encouraging and improving the use of the region's public transportation system (e.g., buses and bicycle lanes) for residents, visitors, and workers traveling into and out of Los Alamitos. As mentioned in the analysis for RTP/SCS G5, there are a number of bikeways throughout Los Alamitos, which also connect to the surrounding local and regional bikeway systems, and the City plans to develop a pedestrian and bicycle master plan, which will encourage the development of a safe and convenient bikeway system. Additionally, the City is committed to ensuring that adequate pedestrian circulation is provided and maintained throughout the City. Planning for Complete Streets pays close attention to the needs of pedestrians in the planning for new and redeveloped areas.</p> <p>Further, the close proximity of existing and future housing units in the City and in surrounding communities and region to employment, commercial, and mixed uses envisioned by the General Plan Update would reduce vehicle miles traveled and thereby reduce air quality and traffic impacts and greenhouse gas emissions.</p> <p>The Land Use, Open Space, Recreation, and Conservation, and Mobility and Transportation Elements of the General Plan Update contain guidance and policies to improve and protect the region's air quality and environment and promote energy efficiency.</p> | <p>Land Use Element: 2.7, 5.4</p> <p>Open Space, Recreation, and Conservation: 2.2, 4.1, 4.4, 4.5, 4.9</p> <p>Mobility and Circulation: 1.1, 1.2, 1.3, 1.6, 3.1, 3.2, 3.3, 4.1–4.7, 5.5, 5.6</p> |
| RTP/SCS G7: Actively encourage and create incentives for energy efficiency, where possible.                                                                                                   | <b>Consistent:</b> This is not a project-specific policy and is therefore not applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Not applicable                                                                                                                                                                                   |

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**Table 5.6-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals**

| RTP/SCS Goal                                                                                                                                                               | Project Compliance with Goal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Relevant General Plan Policies                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| RTP/SCS G8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation.                                                               | Consistent: See response to RTP/SCS G6.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Policies listed under RTP/SCS G2 and G6 apply to this goal.                                                              |
| RTP/SCS G9: Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies. | <p>Consistent: The City monitors and would continue to monitor existing and newly constructed roadways and transit routes (as needed) to determine the adequacy and safety of these systems. Other local and regional agencies (Caltrans, SCAG, and OCTA) would continue to work with the City to manage these systems. Security situations involving roadways and evacuations would be addressed in the City's emergency management plans developed in accordance with state and federal emergency management regulations.</p> <p>The Mobility and Circulation and Growth Management Elements of the General Plan contain guidance and policies for a safe and efficient transportation system.</p> | <p><b>Mobility and Circulation:</b> 1.1, 1.2, 1.6, 2.2, 4.3, 4.7, 4.8</p> <p><b>Growth Management:</b> 1.3, 1.4, 2.4</p> |

Source: 2012–2035 SCAG Regional Transportation Plan/Sustainable Communities Strategy.

### Airport Environs Land Use Plan Consistency

Airport operations and their accompanying noise and safety hazards require careful land-use planning on adjacent and nearby lands to protect the residential and business communities in Los Alamitos and Rossmoor from the potential hazards that could be created by airport operations. Airport operations and their accompanying safety and noise hazards are discussed in detail in Sections 5.5, *Hazards and Hazardous Materials*, and 5.7, *Noise*, of this DEIR.

Approximately 50 percent of the City's total land area is occupied by the Los Alamitos JFTB (see Figure 3-2, *Citywide Aerial*). The City falls within the airport planning area of the JFTB; land uses within the airport planning-area boundaries are required to conform to safety, height, and noise restrictions established in the AELUP for the JFTB. Additionally, the entire City and Rossmoor fall within the height restriction zone for the JFTB and portions of the City fall within the 60 and 65 decibel noise contours (see Figure 5.5-1, *Los Alamitos JFTB Impact Zones*).

ALUC review is required for adoptions of, or amendments to a General Plan or Specific Plan; zoning ordinance; Master Plan for public use airports; and heliports within the airport influence area (Public Utilities Code Sections 21676(b), 21676(c), 21664.5, and 21661.5). However, ALUC review is also required for all discretionary projects if the ALUC has not yet determined that the General Plan is consistent with the AELUP or the local agency has overruled the ALUC (Public Utilities Code Section 21676.5).

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Pursuant to California Public Utilities Code Section 21676, local governments are required to submit all general plan and zoning amendments that occur in the ALUC planning areas for consistency review by ALUC. Since the proposed project includes an update to the City's General Plan and the City falls within the AELUP for JFTB, a determination of consistency with the AELUP by ALUC is required prior to the Los Alamitos City Council taking action on the project. If deemed inconsistent with the AELUP, the City may override the ALUC decision by a two-thirds vote of its governing body, if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670 of the Public Utilities Code. The purpose stated in Section 21670(a)(2) is "to protect 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 excessive noise and safety hazards in areas around public airports to the extent that these areas are not already devoted to incompatible uses." If the City does not overrule the determination, but nevertheless adopts the General Plan, ALUC may require the City to submit all land use actions to it for review and determination.

#### *Potential Hazards to Aircrafts, People, and Property*

Airport safety hazards include hazards posed to aircraft and hazards posed by aircraft to people and property on the ground. With proper land-use planning, aircraft safety risks can be reduced, primarily by avoiding incompatible land uses. As stated in Section 5.5, *Hazards and Hazardous Materials*, only airport-related uses and open-space uses, including agriculture and certain types of transportation and utility uses, are permitted within the Clear Zone; no buildings intended for human habitation are permitted in the Clear Zone. As shown in Figure 5.5-1, the Clear Zone is within the Los Alamitos JFTB boundaries, where the City has no land-use jurisdiction, and would not affect land uses in the remaining portions City. Additionally, no changes are proposed to the land-use designations of the Los Alamitos JFTB under the General Plan Update and no development is forecast to occur that would affect airport operations.

The entire City and Rossmoor fall within the height restriction zone for the Los Alamitos JFTB, and as stated in Section 5.5, building heights in the City are regulated under the City's Zoning Code (Municipal Code Title 17), and not the General Plan; the General Plan Update does not propose changes to building height standards in the Zoning Code. Additionally, new land uses built pursuant to the General Plan Update would be required to comply with standards outlined in the AELUP. Adherence to the AELUP would ensure that land use allowed under the proposed General Plan Update would not encroach into areas required for the safe takeoff and landing of aircraft. Compliance with these policies and land-use restrictions included in the airport's AELUP would minimize potential safety hazards for people residing and working near the Los Alamitos JFTB. Therefore, no significant impacts relating to airport hazards are anticipated.

#### *Potential Aircraft Noise Impacts*

Portions of the City of Los Alamitos are within the 60 and 65 dBA CNEL noise contour of the Los Alamitos JFTB (see Figure 5.5-1). Sensitive land uses within the 60 and 65 dBA CNEL noise contour include existing residential homes on the western and northern edges of the Los Alamitos JFTB. Approximately 30 existing single family homes on the northeast site of the Los Alamitos JFTB and approximately 20 homes to the west of the Los Alamitos JFTB are exposed to noise levels above 65 dBA CNEL. Because this area is

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developed with single-family residential homes and the project would not change the land use designation at the residential areas surrounding the airport; the proposed project would not intensify the number of persons exposed to noise levels above 65 dBA CNEL. Therefore, implementation of the General Plan Update would not expose new noise-sensitive land uses to incompatible levels of aircraft noise. Because the project would not introduce new sensitive receptors to areas that would be inconsistent with the AELUP, noise impacts from aircraft noise at the Los Alamitos JFTB related to the implementation of the General Plan would be less than significant.

#### *Conclusion*

Based on this review and the analysis provided in Sections 5.5, *Hazards and Hazardous Materials*, and 5.7, *Noise*, of this DEIR, the proposed project would be consistent with the AELUP and no significant impact would occur.

Additionally, the ALUC will also be required to make a determination of consistency. It is expected that the ALUC's determination will be the same.

### 5.6.4 Applicable General Plan Policies

The following are relevant policies of the General Plan Update that are designed to reduce potential land-use and planning impacts of future development in the City that would be accommodated by the General Plan Update.

#### Land Use Element

- **Policy 2.7 Quality of life issues** - Maintain, improve, and expand uses that define and enhance the City's quality of life, including parks, trails, open spaces, and public facilities.
- **Policy 5.2 Joint Forces Training Base reuse** - The JFTB shall remain a functioning military training facility within the jurisdictional boundary of the City of Los Alamitos. If the federal government decides to close the base and transition it to private, non-military use, the City of Los Alamitos shall maintain a leadership role in establishing and implementing a base reuse plan.
- **Policy 5.4 Flood control facilities** - The City strongly supports the use of flood control facilities as public trails throughout Los Alamitos.

#### Open Space, Parks, and Conservation Element

- **Policy 2.2 Connectivity and image** - Improve existing and establish new trails along flood control facilities to link neighborhoods and public uses, augment local and regional bicycle systems, enhance the City's image, and attract recreational cyclists and other visitors to the town center.



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- **Policy 4.1 Land use and transportation** - Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
- **Policy 4.4 Low and zero emission vehicles** - Support development of private and public parking infrastructure facilitating the use of alternative fuel vehicles.
- **Policy 4.5 Energy and water conservation** - Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.
- **Policy 4.9 Renewable energy** - Promote the use of renewable energy sources to serve public and private sector development.

### Mobility and Circulation Element

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.
- **Policy 1.3 Downtown connectivity** - Downtown Los Alamitos shall be safely and comfortably accessible by car, by bike, or on foot while maintaining Los Alamitos Boulevard as a four-lane facility with sufficient space for turning movements and queuing space for school access.
- **Policy 1.6 Access Management** - Minimize access points and curb cuts along arterials and within 200 feet of an intersection to improve traffic flow and safety. Eliminate and/or consolidate driveways when new development occurs or when traffic operation or safety warrants.
- **Policy 1.7 Fair share of improvements** - Require new development to pay a fair share of needed transportation improvements based on a project's impacts to the multi-modal transportation network.
- **Policy 2.1 Traffic calming** - Discourage cut-through traffic in residential neighborhoods through the application of traffic calming measures.
- **Policy 2.2 Joint Forces Training Base** - Coordinate with JFTB administration to provide additional vehicular access points from major arterials to minimize travel through residential areas.
- **Policy 2.3 Truck routes** - Plan and designate truck routes that minimize truck traffic through or near residential areas.

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- **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.
- **Policy 3.2 Active trips** - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.
- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.
- **Policy 4.1 Walkable downtown** - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business districts.
- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.
- **Policy 4.3 Intersections** - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.
- **Policy 4.4 Bicycle and pedestrian trails** - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.
- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.
- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.
- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well-marked and visible to motorists.
- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.
- **Policy 5.5 Automobile parking demand** - Reduce automobile parking demand by improving public transit, bicycle and pedestrian mobility.
- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.
- **Policy 5.7 Motorcycle and scooter parking** - Encourage businesses to provide parking spaces specifically designed for motorcycles and motorized scooters.

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#### Growth Management Element

- **Policy 1.3 Governmental collaboration** - Proactively collaborate with adjacent jurisdictions to ensure that infrastructure and public services are provided in a timely and high-quality manner.
- **Policy 1.4 Joint Forces Training Base** - Maintain proactive communications with the Joint Forces Training Base (JFTB) regarding processes, operations, or projects in the City or at the JFTB that have the potential to impact the City of Los Alamitos, its residents, its businesses, or base operations.
- **Policy 2.2 New development** - New development shall pay its share of the costs associated with local and regional traffic mitigation.
- **Policy 2.3 Improvement timing** - Within three years of the issuance of the first building permit for a development project or within five years of the first grading permit for said development project, whichever occurs first, require the necessary improvements to transportation facilities to which the project contributes measurable traffic to be constructed and completed to attain the level of service standards established in this Element.
- **Policy 2.4 Orange County Congestion Management Plan** - Maintain consistency with the County of Orange Congestion Management Plan and Master Plan of Arterial Highways pursuant to the requirement of state law to continue to receive its share of State gasoline sales tax revenues.

#### 5.6.5 Existing Regulations and Standard Conditions

- City of Los Alamitos Municipal Code
- State planning law (California Government Code Section 65300)

#### 5.6.6 Level of Significance Before Mitigation

Upon adherence to regulatory requirements and implementation of the General Plan Update policies, the following impacts would be less than significant: 5.6-1.

#### 5.6.7 Mitigation Measures

No significant adverse land-use impacts were identified and no mitigation measures are necessary.

#### 5.6.8 Level of Significance After Mitigation

No significant unavoidable adverse impacts were identified with regard to land use and planning.

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#### 5.6.9 References

Southern California Association of Governments (SCAG). 2012, April. 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future.  
<http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf>.

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### 5.7 NOISE

This section of the Draft Environmental Impact Report (DEIR) discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing receptor locations; evaluates potential noise impacts associated with implementation of the City of Los Alamitos General Plan Update; and provides mitigation to reduce noise impacts at sensitive residential locations in the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmore. This evaluation uses procedures and methodologies specified by Caltrans and the Federal Highway Administration (FHWA). Noise modeling is included in Appendix E to the DEIR.

#### 5.7.1 Environmental Setting

##### Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.” Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs.

The following are brief definitions of terminology used in this section:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (Leq).** The mean of the noise level, energy averaged over the measurement period.
- **Statistical Sound Level (Ln).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the L<sub>50</sub> level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The L<sub>10</sub> level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The L<sub>90</sub> is the sound level

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exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”

- **Day-Night Sound Level (Ldn or DNL).** The energy-average of the A-weighted sound levels during a 24-hour period, with 10 dB added to the sound levels during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy-average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the levels from 7:00 PM to 10:00 PM and 10 dB added from 10:00 PM to 7:00 AM.

### Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernable to most people in an exterior environment, and a 10 dBA change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are more "felt" as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from traffic on a major highway. Noise is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities. Table 5.7-1, *Representative Environmental Noise Levels*, illustrates representative noise levels for common sources.

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**Table 5.7-1 Representative Environmental Noise Levels**

| Common Outdoor Activities            | Noise Level (dBA) | Common Indoor Activities                    |
|--------------------------------------|-------------------|---------------------------------------------|
|                                      | 110               | Rock Band                                   |
| Jet Fly-over at 100 feet             | 105               |                                             |
|                                      | 100               |                                             |
| Gas Lawnmower at 3 feet              | 95                |                                             |
|                                      | 90                |                                             |
|                                      | 85                | Food Blender at 3 feet                      |
| Diesel Truck going 50 mph at 50 feet | 80                | Garbage Disposal at 3 feet                  |
| Noisy Urban Area during Daytime      | 75                |                                             |
| Gas Lawnmower at 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 Area during Daytime      | 50                | Dishwasher in Next Room                     |
|                                      | 45                |                                             |
| Quiet Urban Area during Nighttime    | 40                | Theater, Large Conference Room (background) |
| Quiet Suburban Area during Nighttime | 35                |                                             |
|                                      | 30                | Library                                     |
| Quiet Rural Area during Nighttime    | 25                | Bedroom at Night, Concert Hall (background) |
|                                      | 20                |                                             |
|                                      | 15                | Broadcast/Recording Studio                  |
|                                      | 10                |                                             |
|                                      | 5                 |                                             |
| Lowest Threshold of Human Hearing    | 0                 | Lowest Threshold of Human Hearing           |

Source: Caltrans 2009.

### Measurement of Sound

Sound intensity is measured through the A-weighted measure to correct for the relative frequency response of the human ear. An A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, as points on a sharply rising curve. On a logarithmic scale, an increase of 10 dB is 10 times more intense than 1 dB, 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound is generated from a source, and its decibel level decreases with distance from that source. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single point source, sound levels decrease by approximately 6 dB for each doubling of distance from



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the source. This drop-off rate is appropriate for noise generated by onsite operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dB for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called  $L_{eq}$ ), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. The  $L_{50}$  noise level represents the noise level that is exceeded 50 percent of the time. Similarly, the  $L_2$ ,  $L_8$  and  $L_{25}$  values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. These “L” values are typically used to demonstrate compliance for stationary noise sources with a city’s noise ordinance. Other values typically noted during a noise survey are the  $L_{min}$  and  $L_{max}$ . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and the City of Highland require that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level ( $L_{dn}$ ). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 PM to 10:00 PM and 10 dBA for the hours from 10:00 PM to 7:00 AM. The  $L_{dn}$  descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 and 10:00 PM. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

### Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure, functions of the heart and the nervous system. For community environments, the ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance.

### Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities such as railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During project construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can

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cause annoyance due to noise generated from vibration of a structure or items within a structure. These types of vibration are best measured and described in terms of velocity and acceleration.

The three main types of waves associated with groundborne vibrations are surface or Rayleigh waves, compression or P-waves, and shear or S-waves.

- **Surface or Rayleigh waves** travel along the ground surface. They carry most of their energy along an expanding cylindrical wave front, similar to the ripples produced by throwing a rock into a lake. The particle motion is more or less perpendicular to the direction of propagation.
- **Compression or P-waves** are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal, in a push-pull motion. P-waves are analogous to airborne sound waves.
- **Shear or S-waves** are also body waves, carrying their energy along an expanding spherical wave front. Unlike P-waves, however, the particle motion is transverse, or perpendicular to the direction of propagation.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root-mean-square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, and RMS is typically more suitable for evaluating human response. Table 5.7-2 presents the human reaction to various levels of peak particle velocity.

**Table 5.7-2 Human Reaction to Typical Vibration Levels**

| Vibration Level<br>Peak Particle Velocity<br>(in/sec) | Human Reaction                                                                                                                   | Effect on Buildings                                                                                                                            |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.006–0.019                                           | Threshold of perception, possibility of intrusion                                                                                | Vibrations unlikely to cause damage of any type                                                                                                |
| 0.08                                                  | Vibrations readily perceptible                                                                                                   | Recommended upper level of vibration to which ruins and ancient monuments should be subjected                                                  |
| 0.10                                                  | Level at which continuous vibration begins to annoy people                                                                       | Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings                                                         |
| 0.20                                                  | Vibrations annoying to people in buildings                                                                                       | Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings                     |
| 0.4–0.6                                               | Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges | Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage |

Source: Caltrans 2002.

The units for PPV and RMS velocity are normally inches per second (in/sec). Vibration is often presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this study, all PPV and RMS velocity levels are in in/sec and all vibration levels are in dB relative to one

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microinch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Even the more persistent Rayleigh waves decrease relatively quickly as they move away from the source of the vibration. Man-made vibration problems are therefore usually confined to relatively short distances (500 to 600 feet or less) from the source (FTA 2006).

Construction operations generally include a wide range of activities that can generate groundborne vibration. In general, blasting and demolition of structures generate the highest vibrations. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which vary depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions. Trains generate substantial quantities of vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

#### 5.7.1.1 REGULATORY BACKGROUND

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

#### California State Regulations

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

#### *Noise/Land Use Compatibility Matrix*

The California Governor's Office of Planning and Research (OPR) has published recommended guidelines for mobile source noise and land use compatibility (OPR 2003). Each jurisdiction is required to consider these guidelines when developing its general plan noise element and determining the acceptable noise levels in its community. Specifically, ranges of noise exposure levels have been developed for different land uses to serve as the primary tool to assess the compatibility between land uses and outdoor noise. These noise guidelines are shown in Table 5.7-3, *Community Noise and Land Use Compatibility*, where a noise level of 60 dBA CNEL is recommended for the exterior living areas of new residential land uses and 45 dBA CNEL for the interior of all new residential uses. The General Plan Update Noise Element is consistent with the state guidelines. When a land use is denoted "normally acceptable" for the given CNEL noise environment, the

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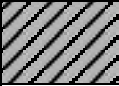
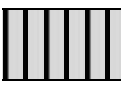
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highest noise level in that range should be considered the maximum desirable for conventional construction that does not incorporate any special acoustic treatment. The acceptability of noise environments classified as “conditionally acceptable” or “normally unacceptable” depend on the anticipated amount of time that will normally be spent outside the structure and the acoustic treatment incorporated in the structure’s design.

**Table 5.7-3 Community Noise and Land Use Compatibility**

| Land Uses                                                      | CNEL (dBA)                                                                          |                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                                                | 55                                                                                  | 60                                                                                   | 65                                                                                    | 70                                                                                    | 75                                                                                    | 80                                                                                    |
| Residential-Low Density<br>Single Family, Duplex, Mobile Homes |    |    |    |    |    |    |
| Residential- Multiple Family                                   |    |    |    |    |    |    |
| Transient Lodging: Hotels and Motels                           |    |    |    |    |    |    |
| Schools, Libraries, Churches, Hospitals, Nursing Homes         |    |    |    |    |    |    |
| Auditoriums, Concert Halls, Amphitheaters                      |    |    |    |    |    |    |
| Sports Arena, Outdoor Spectator Sports                         |  |  |  |  |  |  |
| Playground, Neighborhood Parks                                 |  |  |  |  |  |  |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries     |  |  |  |  |  |  |
| Office Buildings, Businesses, Commercial and Professional      |  |  |  |  |  |  |
| Industrial, Manufacturing, Utilities, Agricultural             |  |  |  |  |  |  |

#### Explanatory Notes

|                                                                                     |                                                                                                                                                                                                                          |                                                                                     |                                                                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Normally Acceptable:<br>With no special noise reduction requirements assuming standard construction.                                                                                                                     |  | Normally Unacceptable:<br>New construction is discouraged. If new construction does not proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. |
|  | Conditionally Acceptable:<br>New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design. |  | Clearly Unacceptable:<br>New construction or development should generally not be undertaken.                                                                                                                                       |

Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 1976. Adapted from the US EPA Office of Noise Abatement Control, Washington D.C. Community Noise. Prepared by Wyle Laboratories. December 1971.

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#### City of Los Alamitos Noise Standards

##### *General Plan Policies*

The current General Plan Noise Element presents a central goal of protecting noise-sensitive land uses, including residences, schools, hospitals, libraries, churches, and convalescent homes from high noise levels from both existing and future noise sources. In order to achieve this goal, the Noise Element outlines issues, policies, and implementation programs to evaluate existing and future noise conditions and minimize the impacts of noise on the City. Several measures have been identified as being relevant to noise in the General Plan Update and are listed in Section 5.7.4.

##### *Municipal Code*

The City of Los Alamitos also maintains a noise ordinance in its municipal code (Chapter 17.24). The noise ordinance establishes citywide interior and exterior noise level standards (see Table 5.7-4, *Los Alamitos Municipal Code Noise Standards*). Its purpose is to “control unnecessary, excessive, and annoying sounds emanating from incorporated areas of the City because certain noise levels are detrimental to the public health, welfare, and safety of the public.” According to Municipal Code Section 17.24.060, Prohibited exterior noise levels, “it is unlawful for a person to create noise, or to allow the creation of noise on property owned, leased, occupied, or otherwise controlled by a person, that causes the noise level when measured on a residential, public institutional, professional, commercial, or industrial property, either within or without the city, to exceed the applicable noise standard.” The noise levels at the affected property shall not exceed:

1. The noise standard for a cumulative period of more than 30 minutes in any hour; or
2. The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
3. The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
4. The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour; or
5. The noise standard plus 20 dBA for any period of time.

**Table 5.7-4 Los Alamitos Municipal Code Noise Standards**

| Noise Zone                         | Exterior Noise Standards |             | Interior Noise Standards |               |
|------------------------------------|--------------------------|-------------|--------------------------|---------------|
|                                    | Noise Level              | Time Period | Noise Level              | Time Period   |
| 1 (Residential) day                | 55 dB(A)                 | 7 AM–10 PM  | 55 dB(A)                 | 7 AM – 10 PM. |
| 1 (Residential) night              | 50 dB(A)                 | 10 PM–7 AM  | 45 dB(A)                 | 10 PM – 7 AM  |
| 2 (Professional and Institutional) | 55 dB(A)                 | Anytime     | 55 dB(A)                 | Anytime       |
| 3 (Commercial)                     | 60 dB(A)                 | Anytime     | 55 dB(A)                 | Anytime       |
| 4 (Industrial)                     | 70 dB(A)                 | Anytime     | 55 dB(A)                 | Anytime       |

Source: Los Alamitos Municipal Code Chapter 17.24, Noise.

If the ambient noise level exceeds these noise limit categories, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise

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limit category, the maximum allowable noise level under that category shall be increased to reflect the maximum ambient noise level.

The noise ordinance also details prohibited interior noise levels in Section 17.24.080. Exemptions from the noise ordinance, including school entertainment, emergency equipment, and lawfully conducted activities within public spaces, are described in Section 17.24.020 Exemptions. Section 17.24.020(D) exempts noise from the City's noise standards for construction-related activities that occur between 7:00 AM to 8:00 PM, Monday through Saturday.

### Vibration Standards

The City of Los Alamitos does not have specific limits or thresholds for vibration. The United States Department of Transportation Federal Transit Administration (FTA) provides criteria for acceptable levels of groundborne vibration for various types of special buildings that are sensitive to vibration. The FTA criteria were used for this analysis.

### Vibration Annoyance

Table 5.7-5, *Groundborne Vibration Impact Criteria: Human Annoyance*, shows the FTA and Caltrans vibration criteria to evaluate vibration-related annoyance due to resonances of the structural components of a building. These criteria are based on extensive research that suggested that humans are sensitive to vibration velocities in the range of 8 to 80 Hz.

**Table 5.7-5 Groundborne Vibration Criteria: Human Annoyance**

| Land Use Category       | Vibration Velocity, in/sec (RMS amplitude) <sup>1</sup> | Description                                                                  |
|-------------------------|---------------------------------------------------------|------------------------------------------------------------------------------|
| Workshop                | 0.032                                                   | Distinctly felt vibration. Appropriate to workshops and nonsensitive areas   |
| Office                  | 0.016                                                   | Felt vibration. Appropriate to offices and nonsensitive areas.               |
| Residential – Daytime   | 0.008                                                   | Barely felt vibration. Adequate for computer equipment.                      |
| Residential – Nighttime | 0.004                                                   | Vibration not felt, but groundborne noise may be audible inside quiet rooms. |

Source: FTA 2006 and Caltrans 2004.

<sup>1</sup> As measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

### Vibration-Related Structural Damage

Structures amplify groundborne vibration and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in Table 5.7-6, *Groundborne Vibration Impact Criteria: Architectural Damage*.

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**Table 5.7-6 Groundborne Vibration Impact Criteria: Architectural Damage**

| Building Category                                       | PPV (in/sec) |
|---------------------------------------------------------|--------------|
| I. Reinforced concrete, steel, or timber (no plaster)   | 0.5          |
| II. Engineered concrete and masonry (no plaster)        | 0.3          |
| III. Nonengineered timber and masonry buildings         | 0.2          |
| IV. Buildings extremely susceptible to vibration damage | 0.12         |

Source: FTA 2006.

#### 5.7.1.2 EXISTING CONDITIONS

##### Existing Noise Environment

The City of Los Alamitos is impacted by a multitude of noise sources. Mobile sources, especially automobiles, trucks, and aircraft overflights, are the most common and significant sources of noise in most communities and the predominant source of noise in the City. Major sources of transportation noise include the I-605 and I-405 that encompass Los Alamitos and Rossmoor on the western and southern sides, respectively. There are no public or public use airports in Los Alamitos or Rossmoor. The Joint Forces Training Base (JFTB) is in the heart of the City and Long Beach Airport is west of the City. Aircraft overflights generate noise that is occasionally heard in the City.

In addition, commercial, industrial, and institutional land uses (i.e., schools, fire stations, utilities) throughout the City generate stationary-source noise.

##### *Roadway Noise*

The major east–west roadways in Los Alamitos include Katella Avenue and Cerritos Avenue. The major north–south roadway is Los Alamitos Boulevard. In order to assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the study area. Average daily traffic (ADT) volumes were taken from the traffic study for the project. Modeling indicates that average noise levels along arterial segments currently range from 59 dBA to 78 dBA CNEL as calculated at 50 feet from the centerline of the road. Interstate routes would have noise levels that range from 80 dBA to 84 dBA CNEL at the edge of the roadway. Noise levels for existing conditions along analyzed roadways are presented in Table 5.7-7, *Existing Traffic Noise Levels*.

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Table 5.7-7 Existing Traffic Noise Levels

| Roadway                | Segment                                     | ADT<br>Volumes | CNEL<br>(dBA @<br>50 ft) <sup>1</sup> | Distance to CNEL Contour<br>(Feet from Centerline) |                  |                  |
|------------------------|---------------------------------------------|----------------|---------------------------------------|----------------------------------------------------|------------------|------------------|
|                        |                                             |                |                                       | 70<br>(dBA CNEL)                                   | 65<br>(dBA CNEL) | 60<br>(dBA CNEL) |
| Los Alamitos Boulevard | north City Limits to Cerritos Avenue        | 24,008         | 73.3                                  | 83                                                 | 179              | 385              |
| Los Alamitos Boulevard | Cerritos Avenue to Katella Avenue           | 30,437         | 74.3                                  | 97                                                 | 210              | 452              |
| Los Alamitos Boulevard | Katella Avenue to Farquhar Avenue           | 44,340         | 76.0                                  | 125                                                | 269              | 580              |
| Los Alamitos Boulevard | Farquhar Avenue to Orangewood Avenue        | 45,473         | 76.1                                  | 127                                                | 274              | 590              |
| Los Alamitos Boulevard | Orangewood Avenue to Bradbury Road          | 41,619         | 75.7                                  | 120                                                | 258              | 556              |
| Los Alamitos Boulevard | Bradbury Road to St. Cloud Drive            | 40,805         | 75.6                                  | 118                                                | 255              | 549              |
| Katella Avenue         | I-605 to Los Alamitos Boulevard             | 64,007         | 78.3                                  | 178                                                | 383              | 826              |
| Katella Avenue         | Los Alamitos Boulevard to Bloomfield Street | 51,583         | 77.3                                  | 154                                                | 332              | 715              |
| Katella Avenue         | Bloomfield Street to Lexington              | 46,100         | 76.8                                  | 143                                                | 308              | 663              |
| Katella Avenue         | Lexington to Walker Street                  | 45,890         | 76.8                                  | 142                                                | 307              | 661              |
| Bloomfield Street      | Katella Avenue to Cerritos Avenue           | 14,163         | 69.1                                  | 44                                                 | 94               | 203              |
| Bloomfield Street      | Cerritos Avenue to Ball Road                | 12,471         | 68.6                                  | 40                                                 | 87               | 187              |
| Cerritos Avenue        | I-605 to Los Alamitos Boulevard             | 29,391         | 71.1                                  | 59                                                 | 127              | 273              |
| Cerritos Avenue        | Los Alamitos Boulevard to Bloomfield Street | 29,932         | 71.1                                  | 60                                                 | 128              | 277              |
| Cerritos Avenue        | Bloomfield Street to Lexington              | 24,059         | 70.2                                  | 52                                                 | 111              | 239              |
| Farquhar Avenue        | Los Alamitos Boulevard to Bloomfield Street | 5,525          | 61.5                                  | 13                                                 | 29               | 63               |
| Farquhar Avenue        | Bloomfield Street to Lexington              | 3,762          | 59.8                                  | 10                                                 | 22               | 48               |
| Bloomfield Street      | Farquhar Avenue to Katella Avenue           | 2,925          | 58.7                                  | 9                                                  | 19               | 41               |
| Lexington Drive        | Farquhar Avenue to Katella Avenue           | 5,671          | 61.6                                  | 14                                                 | 30               | 64               |
| I-605                  | north of I-405                              | 162,000        | 80.0                                  | 467                                                | 1007             | 2170             |
| I-405                  | east of I-605                               | 370,000        | 84.2                                  | 884                                                | 1906             | 4105             |

Note: Noise model performed with the FHWA RD-108-77, calculations included in Appendix E.

<sup>1</sup> CNEL at 100 Feet shown for the Freeways.



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#### *Stationary Noise*

Stationary sources of noises may occur with all types of land uses. Residential uses generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses generate noise from heating, ventilation, air conditioning (HVAC) systems, loading docks, and other sources. Industrial uses may generate noise from HVAC systems, loading docks, and possibly machinery. Noise generated by residential or commercial uses is generally short and intermittent. Industrial uses may generate more prolonged noise due to the nature of its activities. For the developed land within the City of Los Alamitos, land uses are primarily residential, retail uses are mostly along major roadways, and industrial uses are in the northern portions of the City between Katella Avenue and Cerritos Avenue. Noise from stationary sources is regulated through the City's noise ordinance standards, summarized in Table 5.7-4.

#### *Los Alamitos Joint Forces Training Base*

The Los Alamitos JFTB is an active military installation and airfield that provides support and training facilities for military units and other national, state, and local organizations, including emergency operations. The Los Alamitos JFTB is home to an Army Aviation Support Facility and the California Army National Guard, as well as other units not related to aviation. The Los Alamitos JFTB is in the heart of Los Alamitos and may cause occasional noise intrusion from military aircraft. The Airport Environs Land Use Plan (AELUP) for the Los Alamitos JFTB, issued by the Airport Land Use Commission (ALUC) in 2002 is a land-use compatibility plan that describes the effects of aircraft noise on surrounding areas. The City falls within the airport planning area of the Los Alamitos JFTB; land uses within the airport planning-area boundaries are required to conform to noise restrictions established in the AELUP. The Los Alamitos JFTB has two runways, 8,000 feet long and 5,900 feet long, both aligned northeast–southwest. As shown in Figure 5.5-1, *Los Alamitos JFTB Impact Zones*, in Section 5.7, *Hazards and Hazardous Materials*, a small portion of residential homes along the western and northern edges of the Los Alamitos JFTB are currently exposed to noise contour levels above 65 dBA CNEL. A larger proportion of residential homes also located on the western and northern edges of the Los Alamitos JFTB are exposed to noise contour levels between 60 dBA CNEL and 65 dBA CNEL. ALUC review is required for adoptions of, or amendments to a General Plan or Specific Plan; zoning ordinance; Master Plan for public use airports; and heliports within the airport influence area (Public Utilities Code Sections 21676(b), 21676(c), 21664.5, and 21661.5). However, ALUC review is also required for all discretionary projects if the ALUC has not yet determined that the General Plan is consistent with the AELUP or the local agency has overruled the ALUC (Public Utilities Code Section 21676.5)

#### *Local Noise Monitoring Data*

PlaceWorks conducted noise measurements at several locations on Thursday, June 26, 2014. Eight noise level measurements were taken for a period of 15 minutes. The locations were selected based on the location of sensitive land uses in areas near major roads or the Los Alamitos JFTB, and in areas that would experience the greatest change in noise levels due to planned development. The noise measurement locations are shown in Figure 5.7-1, *Noise Measurement Locations*. The results are presented in Table 5.7-8, *Short-Term Noise Level Measurements*. The monitoring locations are described below:

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- **Site 1.** The sound level meter (SLM) was placed in a residential area in the front yard of 5232 Howard Avenue, approximately 1,300 feet from the Los Alamitos JFTB runway. The primary noise was aircraft overflights, golf carts, and birds.
- **Site 2.** The SLM was placed in a commercial area, approximately 70 feet from the centerline of Katella Avenue. The primary noise source was traffic on Katella Avenue, and background noise from traffic on Los Alamitos Boulevard.
- **Site 3.** The SLM was placed next to a single-family house and across from office buildings, approximately 20 feet from the curb to Cerritos Avenue. The primary noise source was traffic on Cerritos Avenue and Humboldt Street.
- **Site 4.** The SLM was placed at the northwest corner of the Oak Middle School parking lot at the edge of Oak Academy Park, approximately 900 feet from I-605. The primary noise source was traffic on I-605 and aircraft overflights.
- **Site 5.** The SLM was placed in a commercial area, approximately 70 feet from the centerline of Katella Avenue. The primary noise source was traffic on Katella Avenue and Walnut Street and air tools from Jiffy Lube.
- **Site 6.** The SLM was placed at the southeast corner of the Orville Lewis Jr Park approximately 1,400 feet from the Los Alamitos JFTB runway. The primary noise source was aircraft overflights, children playing in the park, and birds.
- **Site 7.** The SLM was placed in a residential area in the front yard of 2982 Yellowtail Drive, approximately 160 feet from the northern soundwall along I-405 and 3 feet from the curb. The primary noise source was traffic on I-405, and aircraft overflights.
- **Site 8.** The SLM was placed at the south of the McAuliffe Middle School field, approximately 25 feet from the curb to Bloomfield Street. The primary noise source was traffic on Bloomfield Street.

**Table 5.7-8 Short-Term Noise Level Measurements**

| Noise Monitoring Location | Time           | L <sub>eq</sub> | L <sub>max</sub> | L <sub>min</sub> |
|---------------------------|----------------|-----------------|------------------|------------------|
| ST-1                      | 15:28-15:42 PM | 52.0            | 70.3             | 41.9             |
| ST-2                      | 13:25-13:39 PM | 67.8            | 77.2             | 52.2             |
| ST-3                      | 14:40-14:54 PM | 69.4            | 77.7             | 51.5             |
| ST-4                      | 14:16-14:30 PM | 59.6            | 71.1             | 55.6             |
| ST-5                      | 13:52-14:06 PM | 69.9            | 83.5             | 57.9             |
| ST-6                      | 12:56-13:10 PM | 48.3            | 61.2             | 43.4             |
| ST-7                      | 12:28-12:43 PM | 61.1            | 67.9             | 58.3             |
| ST-8                      | 15:01-15:15 PM | 63.5            | 74.2             | 50.9             |

Note: Calculations and detailed outputs are included in Appendix E.



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**Figure 5.7-1 Noise Measurement Locations**



-  City Boundary
-  Sphere of Influence
-  Los Alamitos Joint Forces Training Base
-  Noise Measurement Locations (8)



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As shown on Table 5.7-8, the average noise levels during the daytime at the locations where the short-term measurements were taken ranged from 48.3 to 69.9 dBA  $L_{eq}$ . During the noise monitoring and field reconnaissance, it was observed that the existing noise levels in the City were dominated by traffic noise. Aircraft noise was sporadic and limited to each aircraft passby event. The highest noise levels were observed in areas near major City roads, including Katella Avenue, Los Alamitos Boulevard, Cerritos Avenue, and Bloomfield Street.

### Vibration

Perceptible vibration levels are typically caused by mining operations, train passbys, and heavy trucks hitting discontinuities in the pavement from gaps and potholes. Under normal conditions with well-maintained asphalt, vibration levels are usually not perceptible beyond the road right-of-way. There are no known major sources of vibration in the City such as commuter or freight railroad lines, or mining and heavy industrial equipment that would cause substantial levels of vibration.

### Sensitive Receptors

Sensitive land uses are uses that have associated human activities that may be subject to stress or significant interference from noise, such as residences, schools, childcare facilities, religious institutions, hospitals, libraries, parks and recreational facilities, health care facilities, convalescent centers, and retirement homes. Various standards have been developed to address the compatibility of land uses with noise levels. The standards place special emphasis on land uses that are considered sensitive to high noise levels.

Sensitive land uses in the City of Los Alamitos includes residential, churches, hospitals, institutional and recreational uses, and open space areas. As illustrated in Figure 5.7-2, *Traffic Noise Level Contours; Existing Conditions*, sensitive uses along the I-605, I-405, and major roads such as Katella Avenue, Los Alamitos Boulevard, and Cerritos Avenue experience noise levels over 60 dBA CNEL.

## 5.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

- N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

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- N-5 For a project 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, expose people residing or working in the project area to excessive noise levels.
- N-6 For a project within the vicinity of a private airstrip, expose people residing or working the project area to excessive noise levels.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold N-5

This impact will not be addressed in the following analysis.

### 5.7.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

---

**Impact 5.7-1** The General Plan Update would not result in a substantial long-term increase in ambient noise levels generated by vehicle traffic. [Thresholds N-1 and N-3]

---

**Impact Analysis:** Future development in accordance with the proposed General Plan Update would cause increases in traffic along local roadways. In community noise assessments, a 3 dBA increase is considered “barely perceptible,” and increases over 5 dBA are generally considered “readily perceptible” (Caltrans 2009). Meanwhile, noise-sensitive residential uses are considered normally acceptable under ambient noise conditions of 60 dBA CNEL. Because the expected ambient noise increase would occur over a long period of time—over 20 years—as opposed to an immediate change in noise, a significant impact would occur for roadways where buildout of the General Plan Update would result in a noise increase of 3 dB or more in an environment where the ambient noise level is 60 dBA CNEL. Table 5.7-9, *Buildout Year 2035 Traffic Noise Levels*, shows the traffic noise levels for roadway segments in the traffic study area under the General Plan Update buildout conditions. The table also shows the net change in the ambient noise levels along the roadway segments from existing conditions.

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Table 5.7-9 Buildout Year 2035 Traffic Noise Levels

| Roadway                | Segment                                     | dBA CNEL |      |          | Potentially Significant? |
|------------------------|---------------------------------------------|----------|------|----------|--------------------------|
|                        |                                             | Existing | 2035 | Increase |                          |
| Los Alamitos Boulevard | north City Limits to Cerritos Avenue        | 73.3     | 73.7 | 0.4      | No                       |
| Los Alamitos Boulevard | Cerritos Avenue to Katella Avenue           | 74.3     | 74.3 | 0.0      | No                       |
| Los Alamitos Boulevard | Katella Avenue to Farquhar Avenue           | 76.0     | 76.1 | 0.1      | No                       |
| Los Alamitos Boulevard | Farquhar Avenue to Orangewood Avenue        | 76.1     | 76.1 | 0.1      | No                       |
| Los Alamitos Boulevard | Orangewood Avenue to Bradbury Road          | 75.7     | 75.8 | 0.1      | No                       |
| Los Alamitos Boulevard | Bradbury Road to St. Cloud Drive            | 75.6     | 75.7 | 0.1      | No                       |
| Katella Avenue         | I-605 to Los Alamitos Boulevard             | 78.3     | 78.9 | 0.7      | No                       |
| Katella Avenue         | Los Alamitos Boulevard to Bloomfield Street | 77.3     | 78.3 | 1.0      | No                       |
| Katella Avenue         | Bloomfield Street to Lexington              | 76.8     | 78.0 | 1.1      | No                       |
| Katella Avenue         | Lexington to Walker Street                  | 76.8     | 77.8 | 1.0      | No                       |
| Bloomfield Street      | Katella Avenue to Cerritos Avenue           | 69.1     | 69.8 | 0.7      | No                       |
| Bloomfield Street      | Cerritos Avenue to Ball Road                | 68.6     | 69.0 | 0.4      | No                       |
| Cerritos Avenue        | I-605 to Los Alamitos Boulevard             | 71.1     | 71.6 | 0.5      | No                       |
| Cerritos Avenue        | Los Alamitos Boulevard to Bloomfield Street | 71.1     | 71.1 | 0.0      | No                       |
| Cerritos Avenue        | Bloomfield Street to Lexington              | 70.2     | 70.5 | 0.3      | No                       |
| Farquhar Avenue        | Los Alamitos Boulevard to Bloomfield Street | 61.5     | 61.5 | 0.0      | No                       |
| Farquhar Avenue        | Bloomfield Street to Lexington              | 59.8     | 59.8 | 0.0      | No                       |
| Bloomfield Street      | Farquhar Avenue to Katella Avenue           | 58.7     | 58.7 | 0.0      | No                       |
| Lexington Drive        | Farquhar Avenue to Katella Avenue           | 61.6     | 61.6 | 0.0      | No                       |

Notes: Noise model performed with the FHWA RD-108-77, calculations included in Appendix E.  
W/ = west of; E/ = east of; N/ north of; S/ = south of

Under the 2035 scenario, the ambient noise environment would be higher than 60 dBA CNEL along most of the study-area roadway segments. However, buildout of the proposed General Plan Update would only result in noise level increases up to 1.1 dB from existing conditions. These incremental increases would be below the levels that are considered barely perceptible and would be below the thresholds. Therefore, traffic-related noise impacts to offsite uses from implementation of the proposed General Plan Update would be less than significant.

**Impact 5.7-2: The General Plan Update would not expose sensitive receptors to elevated noise levels from traffic and stationary noise. [Thresholds N-1 and N-3]**

**Impact Analysis:** A significant impact could occur if the proposed land use plan designates noise-sensitive uses in areas where the ambient noise level clearly exceeds compatible levels. Noise-sensitive land uses include residential, schools, libraries, churches, nursing homes, hospitals, and open space/recreation areas.



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Commercial and industrial areas are not considered noise sensitive and have much higher tolerances for exterior noise levels. Noise-sensitive land uses would be exposed to transportation sources, including vehicular traffic and aircraft overflights.

Traffic noise contours were calculated for long-range 2035 conditions. Figure 5.7-3, *Traffic Noise Level Contours: 2035 Conditions*, shows the future noise contours from roadway traffic along nearby freeways and major thoroughfares in Los Alamitos, according to roadway segment volumes provided in Section 5.11, *Traffic and Transportation*. These contours do not account for noise attenuation provided by intervening structures or topographical barriers. As shown, several portions of the City will be in areas exposed to noise levels above 60 dBA CNEL, which is the level considered normally compatible with the development of residential uses.

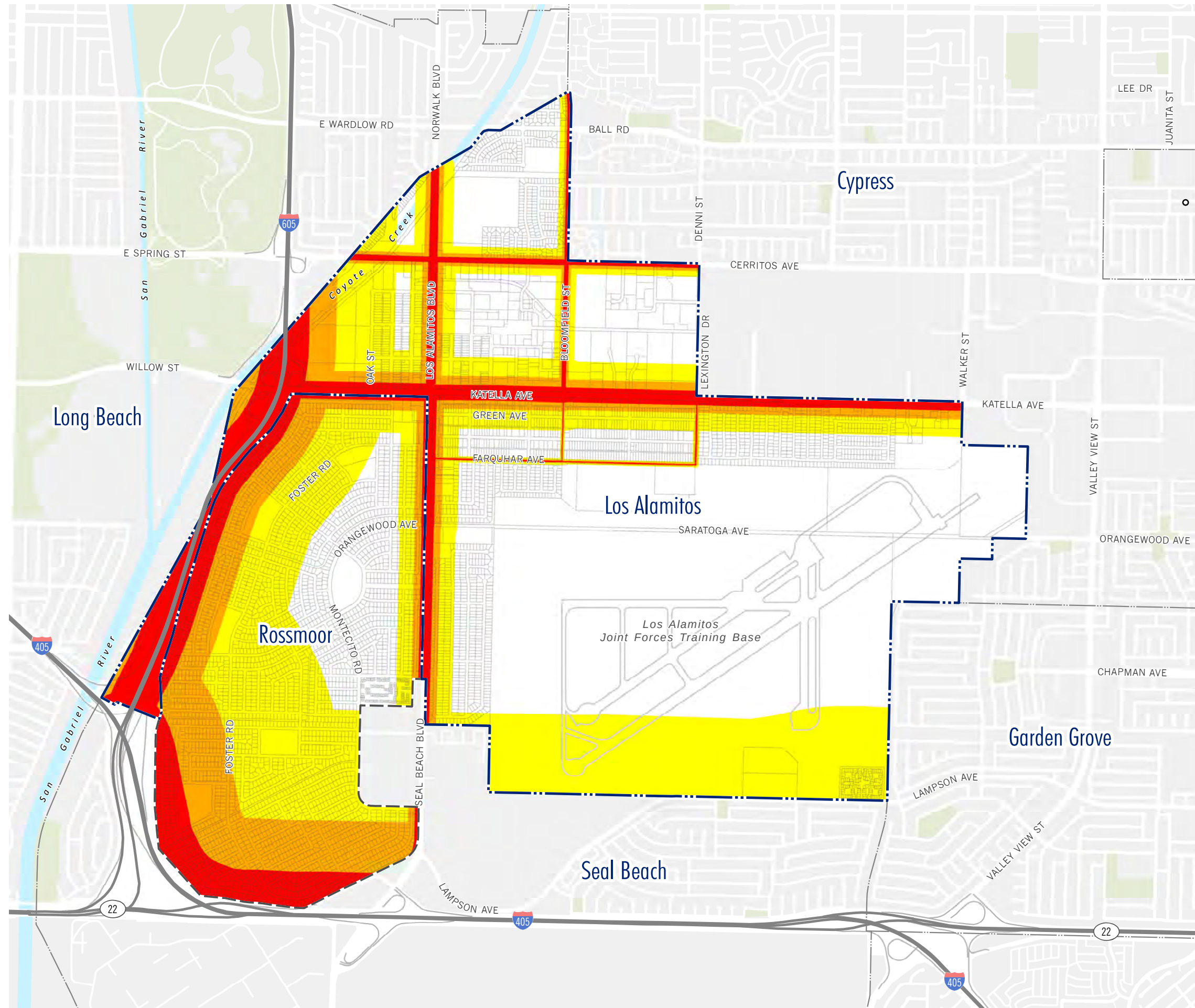
For the purpose of assessing the compatibility of new development with the anticipated ambient noise, the City utilizes the Community Noise and Land Use Compatibility standards, summarized in Table 5.7-3. The extent of the exposure to noise depends on site-specific conditions and location of buildings. Further review would be required as future development is proposed. New sensitive land uses would have to demonstrate compatibility with the ambient noise levels. Any siting of new noise-sensitive land uses within a noise environment that exceeds the normally acceptable land use compatibility criterion represents a potentially significant impact and would require a separate noise study through the development review process to determine the level of impacts and required mitigation. The City's municipal code includes several noise standards in Chapter 17.24 to control noise from stationary sources.

The General Plan Update includes policies in the Public Facilities and Safety Element, including:

- **Policy 4.1 Land use compatibility** - Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the City's Noise Ordinance, the Land Use and Noise Compatibility Matrix, the State Interior and Exterior Noise Standards, and the Airport Environs Land Use Plan for the JFTB.
- **Policy 4.2 New residential** - When new residential development is proposed adjacent to land designated for industrial or commercial uses, require the proposed development to assess potential noise impacts and fund feasible noise-related mitigation measures.
- **Policy 4.3 Control sound at the source** - Prioritize noise mitigation measures to control sound at the source over buffers, soundwalls, and other perimeter measures.
- **Policy 4.4 Noise impacts** - Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.
- **Policy 4.5 Caltrans facilities** - Coordinate with Caltrans to ensure the inclusion of noise mitigation measures in the design of new highway projects or improvements to existing facilities.
- **Policy 4.6 Aircraft noise** - Work with the JFTB and the Long Beach Airport (LGB) to minimize the noise impact of small aircraft and helicopters on residential neighborhoods.

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**Figure 5.7-2 Traffic Noise Level Contours  
- Existing Conditions**



- 60 CNEL
- 65 CNEL
- 70 CNEL
- City Boundary
- Sphere of Influence
- Other City Boundaries

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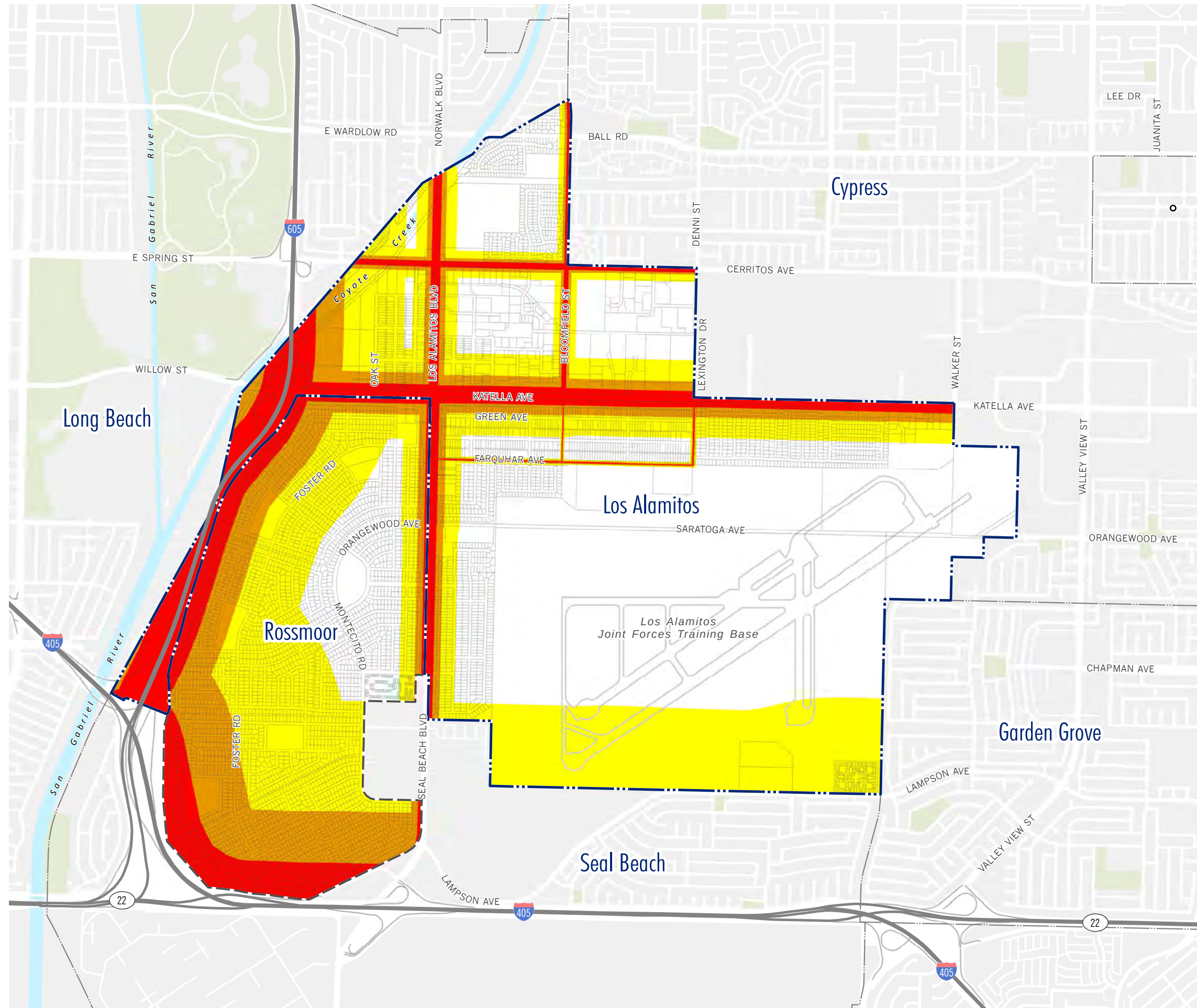
### NOISE

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## 5. Environmental Analysis

**Figure 5.7-3 Traffic Noise Level Contours  
- 2035 Conditions**



- 60 CNEL
- 65 CNEL
- 70 CNEL
- City Boundary
- Sphere of Influence
- Other City Boundaries

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Public Facilities and Safety Element Policies 4.1 to 4.6 would reduce noise impacts from transportation and stationary noise sources to sensitive uses by requiring an assessment to analyze potential noise impacts and the implementation of mitigation measures to meet applicable standards: by coordinating with Caltrans and the Los Alamitos JFTB to minimize roadway and aircraft noise; and by controlling noise at the source at business operations. With the noise standards in the City's municipal code and implementation of the General Plan Public Facilities and Safety Element policies related to noise, impacts from transportation and stationary noise sources would be less than significant.

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**Impact 5.7-3: Construction activities associated with the proposed project could create a substantial short-term increase in groundborne vibration. [Threshold N-2]**

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#### *Impact Analysis:*

#### **Long-Term Operational Vibration Impacts**

Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborne vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks. This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)." Typically, trucks do not generate high levels of vibration because they travel on rubber wheels and do not have vertical movement, which generates ground vibration. Because there are no major transportation-related vibration sources in the City, such as commuter and freight rail, any potential for significant long-term vibration impacts is less than significant.

The use of heavy equipment associated with heavy industrial operations such as mining and concrete plants can create elevated vibration levels in their immediate proximity. As shown in Figure 3-5, *Proposed Land Use Plan*, the area north of Cerritos Avenue and between Denni Street and Los Alamitos Boulevard would be designated Planned Industrial. Through land uses within the Planned Industrial would likely permit the heaviest industrial operations, they would not be immediately adjacent to any sensitive uses. In addition, no major vibration sources, such as mining and blasting activities, would occur in these areas. Vibration from heavy machinery dissipates rapidly with distance; therefore, no significant operational vibration impacts to sensitive uses would occur.

#### **Construction Vibration Impacts**

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor building construction. The effects of vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches levels that can damage structures, but it can achieve the audible and perceptible ranges in buildings

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close to the construction site. Table 5.7-10, *Vibration Levels for Construction Equipment*, lists vibration levels for a variety of construction equipment.

**Table 5.7-10 Vibration Levels for Construction Equipment**

| Equipment                                | Approximate Velocity Level at 25 Feet (VdB) | Approximate RMS <sup>1</sup> Velocity at 25 Feet (in/sec) |
|------------------------------------------|---------------------------------------------|-----------------------------------------------------------|
| Pile Driver (impact) Upper Range         | 112                                         | 1.518                                                     |
| Pile Driver (impact) Lower Range         | 104                                         | 0.644                                                     |
| Pile Driver (sonic) Upper Range          | 105                                         | 0.734                                                     |
| Pile Driver (sonic) Lower Range          | 93                                          | 0.170                                                     |
| Large Bulldozer                          | 87                                          | 0.089                                                     |
| Caisson Drilling                         | 87                                          | 0.089                                                     |
| Jackhammer                               | 79                                          | 0.035                                                     |
| Small Bulldozer                          | 58                                          | 0.003                                                     |
| Loaded Trucks                            | 86                                          | 0.076                                                     |
| FTA Criteria – Human Annoyance (Daytime) | 78                                          | —                                                         |
| FTA Criteria – Structural Damage         | —                                           | 0.200                                                     |

Source: FTA 2006.

<sup>1</sup> RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second.

As shown in Table 5.7-10, vibration generated by construction equipment has the potential to be substantial. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers (FTA 2006). Vibration impacts may occur from construction equipment associated with development in accordance with the City of Los Alamitos General Plan Update. Depending on the use of equipment and distance to the nearest receptors, the use of heavy equipment during construction would have the potential to cause annoyance and architectural damage at nearby uses. This could be a potentially significant impact. Construction related to projects with the implementation of the General Plan could result in a potentially significant vibration impact.

**Impact 5.7-4: Construction activities associated with the proposed project could create a substantial short-term increase in noise levels in the vicinity of noise-sensitive land uses. [Threshold N-4]**

**Impact Analysis:** Implementation of the General Plan Update would result in construction of new residential, commercial, and industrial uses throughout the City. Two types of short-term noise impacts could occur during construction. First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads. The second type of short-term noise impact is related to demolition, site preparation, grading, and/or physical construction. Construction is performed in distinct steps, each of which has its own mix of equipment, and, consequently, its own noise characteristics. Table 5.7-11, *Construction Equipment Noise Emission Levels*, lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and noise receptor.

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Table 5.7-11 Construction Equipment Noise Emission Levels

| Construction Equipment | Typical Maximum Noise Level<br>(dBA L <sub>max</sub> ) | Construction Equipment | Typical Noise Level <sup>1</sup><br>(dBA L <sub>max</sub> ) |
|------------------------|--------------------------------------------------------|------------------------|-------------------------------------------------------------|
| Air Compressor         | 81                                                     | Pile Driver (Impact)   | 101                                                         |
| Backhoe                | 80                                                     | Pile Driver (Sonic)    | 96                                                          |
| Ballast Equalizer      | 82                                                     | Pneumatic Tool         | 85                                                          |
| Ballast Tamper         | 83                                                     | Pump                   | 76                                                          |
| Compactor              | 82                                                     | Rail Saw               | 90                                                          |
| Concrete Mixer         | 85                                                     | Rock Drill             | 98                                                          |
| Concrete Pump          | 71                                                     | Roller                 | 74                                                          |
| Concrete Vibrator      | 76                                                     | Saw                    | 76                                                          |
| Crane, Derrick         | 88                                                     | Scarifier              | 83                                                          |
| Crane, Mobile          | 83                                                     | Scraper                | 89                                                          |
| Dozer                  | 85                                                     | Shovel                 | 82                                                          |
| Generator              | 81                                                     | Spike Driver           | 77                                                          |
| Grader                 | 85                                                     | Tie Cutter             | 84                                                          |
| Impact Wrench          | 85                                                     | Tie Handler            | 80                                                          |
| Jack Hammer            | 88                                                     | Tie Inserter           | 85                                                          |
| Loader                 | 85                                                     | Truck                  | 88                                                          |
| Paver                  | 89                                                     |                        |                                                             |

Source: FTA 2006.

<sup>1</sup> Measured 50 feet from the source.

As shown, construction equipment generates high levels of noise, with maximums ranging from 71 dBA to 101 dBA. Construction of individual developments associated with buildout of the proposed land use plan could temporarily increase the ambient noise environment and could have the potential to affect noise-sensitive land uses in the vicinity of a project. Pursuant to Los Alamitos Municipal Code, Section 17.24.020(D), construction-related activities between 7:00 AM to 8:00 PM, Monday through Saturday, are exempt from the stationary source noise standards of the City. Construction activities that occur outside of these permitted hours must comply with the stationary source noise standards.

Significant noise impacts may occur from operation of heavy earthmoving equipment and truck haul that would occur with construction of individual development projects. Construction noise levels are dependent upon the specific locations, site plans, and construction details of individual projects, which have not yet been developed. Construction would be localized and would occur intermittently for varying periods of time. Because specific project-level information is not available at this time, it is not possible to quantify the construction noise impacts at specific sensitive receptors. Construction of individual developments associated with implementation of the General Plan Update could temporarily increase the ambient noise environment in the vicinity of each individual project. Construction of future projects would be limited to between 7:00 AM to 8:00 PM, Monday through Saturday to comply with the City's municipal code Section 17.24.020(D), which exempts construction-related noise between these hours. Development projects would be subject to



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environmental review, and specific mitigation measures would be implemented to reduce noise impacts during construction. Even with the limitation in construction noise hours, construction of projects may have the potential to generate substantial noise increases for prolonged periods of time, causing disturbance and annoyance at nearby uses. Construction from projects related to implementation of the General Plan could result in a potentially significant noise impact.

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**Impact 5.7-5: Implementation of the General Plan Update would not result in increased noise exposure from operation of the Los Alamitos Joint Forces Training Base. [Thresholds N-3 and N-6]**

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**Impact Analysis:** As discussed above, the Los Alamitos JFTB is a military aviation facility, and operations at the JFTB would continue to contribute to the ambient noise environment. The base does not utilize live ordnance, but training exercises involve aircraft and ground vehicle activity. The major sources of noise at the base are vehicular traffic on City roadways, major events at the base, and aircraft operations.

#### *Aircraft Noise*

The AELUP establishes standards for the compatibility between the Los Alamitos Army Airfield and surrounding parcels. The standards identify land uses that are considered inconsistent with airport operations and areas where the greatest noise from aircraft is expected to occur, and establish height limits in select areas around the runway. Development within the airport influence area (AIA) would be required to comply with the standard outline in the airport's AELUP. A small portion of residential homes along the western and northern edges of the JFTB are currently exposed to noise contour levels above 65 dBA CNEL and thus are inconsistent with the AELUP. Other small areas that are within the 65 dBA CNEL noise contour are planned industrial and professional office uses. Residential units are incompatible in high noise impact zones (65 dB CNEL and above) unless it can be shown conclusively that such units are sufficiently sound attenuated for present and project noise exposures, which is the energy sum of all noise impacting the project, so as not to exceed an interior standard of 45 dB CNEL. Furthermore, residential units should be sufficiently indoor oriented in this zone to preclude noise impinging on outdoor living areas.

Sensitive land uses within the 60 and 65 dBA CNEL noise contours include existing residential homes on the western and northern edges of the Los Alamitos JFTB. Residential units within the moderate noise impact zone (between 60 dB CNEL and 65 dB CNEL) could be seriously disturbed by single noise events, but are still compatible for this area in accordance with the AELUP.

Approximately 30 existing single-family homes to the northeast of the Los Alamitos JFTB and approximately 20 homes to the west of the JFTB are exposed to noise levels above 65 dBA CNEL. Because this area is developed with single-family residential homes and the project would not change the land use designation at the residential areas surrounding the airport, the proposed project would not intensify the number of persons exposed to noise levels above 65 dBA CNEL. Therefore, implementation of the General Plan Update would not expose new noise-sensitive land uses to incompatible levels of aircraft noise. Because the project would not introduce new sensitive receptors to areas that would be inconsistent with the AELUP, noise impacts from aircraft noise at the Los Alamitos JFTB related to the implementation of the General Plan would be less than significant.

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#### *Vehicular Traffic and Events*

In addition to military operations, the Los Alamitos JFTB hosts community events such as the annual Race on the Base and the Wings, Wheels and Rotors Expo. The Los Alamitos JFTB also houses the Sunburst Youth Challenge Academy, Youth Baseball Fields, and Aquatic Center, all of which are used by civilians. On weekends and other select training periods, activities can increase substantially. The Los Alamitos JFTB currently maintains its major point of access off Lexington Drive. An additional point of access is provided for the golf course, but it is not used to access other parts of the Los Alamitos JFTB except in special circumstances. The Los Alamitos JFTB closed the Orangewood Avenue access point a number of years ago, leaving Lexington Drive as the only entrance to the base. For special events, the base and the City coordinate and open the Orangewood Avenue entry, but it otherwise remains closed. Vehicular traffic entering and exiting the Los Alamitos JFTB would utilize the access via Lexington Drive, sensitive uses along the segment of Lexington Drive between Katella Avenue and the Los Alamitos JFTB would be exposed to the Los Alamitos JFTB vehicular traffic. The 2035 noise level contours for the segment of Lexington Drive between Katella Avenue and the Los Alamitos JFTB were calculated for a typical traffic condition, without events or military exercises. The 70 dBA CNEL noise level contour falls within the road right-of-way, the 65 dBA CNEL within 30 feet of the road centerline. The nearest homes are approximately 45 feet from the road centerline, outside the 65 dBA CNEL of the road. Therefore, during normal traffic conditions, the residential areas along the road are compatible with traffic noise on Lexington Drive. The other access route to the Lexington Drive entrance is provided via Farquar Avenue, which is exposed to less noise than Lexington Drive (see Table 5.7-10).

According to the Los Alamitos JFTB staff, the base hosts major military training exercises approximately once a month, when there is an increase in vehicular activity due to military truck convoys accessing the base. These events would continue to be sporadic, causing noise increases due to truck passbys that occur for short periods of time. Finally, the project would not modify the land use plan for the areas in the vicinity of the base south of Katella Avenue and east of Los Alamitos Boulevard. Therefore, noise impacts would be less than significant.

#### 5.7.4 Applicable General Plan Policies

##### Public Facilities and Safety Element

- **Policy 4.1 Land use compatibility** - Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the City's Noise Ordinance, the Land Use and Noise Compatibility Matrix, the State Interior and Exterior Noise Standards, and the Airport Environs Land Use Plan for the JFTB.
- **Policy 4.2 New residential** - When new residential development is proposed adjacent to land designated for industrial or commercial uses, require the proposed development to assess potential noise impacts and fund feasible noise-related mitigation measures.

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- **Policy 4.3 Control sound at the source** - Prioritize noise mitigation measures to control sound at the source over buffers, soundwalls, and other perimeter measures.
- **Policy 4.4 Noise impacts** - Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.
- **Policy 4.5 Caltrans facilities** - Coordinate with Caltrans to ensure the inclusion of noise mitigation measures in the design of new highway projects or improvements to existing facilities.
- **Policy 4.6 Aircraft noise** - Work with the JFTB and the Long Beach Airport (LGB) to minimize the noise impact of small aircraft and helicopters on residential neighborhoods.

### 5.7.5 Existing Regulations and Standard Conditions

#### State

- California Code of Regulations, Title 21, Part 1, Public Utilities Code (Regulation of Airports)
- California Code of Regulations, Title 24, Part 11, California Green Building Standards Code.

#### City of Los Alamitos Municipal Code

- Chapter 17.24, Noise.

### 5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.7-1, 5.7-2, and 5.7-5.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.7-3** Construction activities associated with the proposed project could create a substantial short-term increase in groundborne vibration.
- **Impact 5.7-4** Construction activities associated with the proposed project could create a substantial short-term increase in noise levels in the vicinity of noise-sensitive land uses.

### 5.7.7 Mitigation Measures

#### Impact 5.7-3

- 7-1 Individual projects that involve vibration-intensive construction activities—such as blasting, pile drivers, jack hammers, and vibratory rollers—within 200 feet of sensitive receptors shall be evaluated for potential vibration impacts. A study shall be conducted for individual

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projects where vibration-intensive impacts may occur. If construction-related vibration is determined to be perceptible at vibration-sensitive uses, additional requirements, such as use of less-vibration-intensive equipment or construction techniques, shall be implemented during construction (e.g., nonexplosive blasting methods, drilled piles as opposed to pile driving, etc.).

#### Impact 5.7-4

7-2 Applicants for new development projects within 500 feet of sensitive receptors shall implement the following best management practices to reduce construction noise levels:

- Require that construction vehicles and equipment (fixed or mobile) be equipped with properly operating and maintained mufflers.
- Restrict haul routes and construction-related traffic
- Place stock piling and/or vehicle-staging areas as far as practical from residential uses.
- Replace audible backup warning devices with strobe lights or other warning devices during evening construction activity to the extent permitted by the California Division of Occupational Safety and Health.
- Reduce nonessential idling of construction equipment to no more than five minutes
- Consider the installation of temporary sound barriers for construction activities that are adjacent to occupied noise-sensitive structures, depending on length of construction, type of equipment used, and proximity to noise-sensitive uses.

### 5.7.8 Level of Significance After Mitigation

#### Impact 5.7-3

The proposed project could create elevated levels of groundborne vibration and groundborne noise; during construction activities. Mitigation Measure 7-1 would reduce vibration impacts associated with construction of projects to the extent feasible. However, because of distance and other site conditions that may render its implementation infeasible or ineffective for future projects in the City, Mitigation Measure 7-1 would not guarantee that vibration impacts construction of projects would be reduced to less than significant levels. Consequently, Impact 5.7-3 would be Significant and Unavoidable.

#### Impact 5.7-4

Construction activities would result in temporary noise increases in the vicinity of sensitive land uses. Mitigation Measure 7-2 would reduce noise impacts associated with construction activities to the extent feasible. However, because of distance, source to receiver geometry, and other site conditions that may render its implementation infeasible or ineffective for future projects in the City, Mitigation Measure 7-2 would not

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guarantee that construction noise impacts would be reduced to less than significant levels. Consequently, Impact 5.7-4 would be Significant and Unavoidable.

#### 5.7.9 References

Airport Land Use Commission (ALUC), Orange County. 2002, December 19. Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos.

California Department of Transportation (Caltrans). 2009, November. Technical Noise Supplement. Prepared by ICF International.

\_\_\_\_\_. 2004, June. Transportation- and Construction-Induced Vibration Guidance Manual. Prepared by ICF International.

Federal Transit Administration (FTA). 2006, May. Transit Noise and Vibration Impact Assessment. United States Department of Transportation. FTA-VA-90-1003-06.

Office of Planning and Research (OPR). 2003, October. General Plan Guidelines 2003, Appendix C: Guidelines for the Preparation and Content of the Noise Element of the General Plan.

Los Alamitos, City of. 1990, May. City of Los Alamitos 2010 General Plan.

\_\_\_\_\_. Los Alamitos Municipal Code Chapter 17.24, Noise. <http://qcode.us/codes/losalamitos/>, Accessed July 1, 2014.

## 5. Environmental Analysis

### 5.8 POPULATION AND HOUSING

This section of the Draft Environmental Impact Report (DEIR) examines the potential for socioeconomic impacts of the Los Alamitos General Plan Update on the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmoor, including changes in population, employment, and demand for housing, particularly housing cost/rent ranges defined as “affordable.”

The analysis in this section is based, in part, upon sources of information from the US Census Bureau, the California Department of Finance, and the Center for Demographic Research at California State University, Fullerton.

#### 5.8.1 Environmental Setting

##### 5.8.1.1 REGULATORY SETTING

###### State Regulations

###### *California Housing Element Law*

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department (HCD) estimates the relative share of California’s projected population growth that would occur in each county based on California Department of Finance (DOF) population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments, the HCD provides the RHNA to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the council of governments distributes its share of the state’s projected housing need.

State law recognizes the vital role local governments play in the supply and affordability of housing. To that end, California Government Code requires that the Housing Element achieve legislative goals to:

- Identify adequate sites to facilitate and encourage the development, maintenance, and improvement of housing for households of all economic levels, including persons with disabilities.
- Remove, as legally feasible and appropriate, governmental constraints to the production, maintenance, and improvement of housing for persons of all incomes, including those with disabilities.
- Assist in the development of adequate housing to meet the needs of low and moderate income households.

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### POPULATION AND HOUSING

- Conserve and improve the condition of housing and neighborhoods, including existing affordable housing. Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve for lower income households the publicly assisted multifamily housing developments in each community.

The State of California Housing Element laws (Sections 65580 to 65589 of the California Government Code) require that each city and county identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community commensurate with local housing needs.

### Regional Planning

#### *Southern California Association of Governments*

The Southern California Association of Governments (SCAG) represents Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. It is a regional planning agency and serves as a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. Descriptions of SCAG, its adopted “2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future” (2012 RTP/SCS), and Compass Growth Vision are provided in Section 5.6, *Land Use and Planning*, of this EIR. The most recent RHNA Allocation Plan for the SCAG region, covering the 2013-2021 period, was adopted by SCAG in October 2012 (SCAG 2014).

#### 5.8.1.2 EXISTING CONDITIONS

The project area’s demographics are examined in the context of existing and projected populations and housing units for the Orange County region and the City of Los Alamitos and Rossmoor. Information on population, housing, and employment for the project area is available from several sources:

- **Orange County Projections (OCP) by the Center for Demographic Research (CDR) at California State University Fullerton.** CDR maintains housing, population, and employment projections in five-year intervals up to 2035. OCP-2010 was originally approved in January 2011, but publication was delayed until 2012 in order to incorporate 2010 Census population and housing data. The OCP-2010 Modified represents the growth projected in the approved 2010 projections with the inclusion of the 2010 Census data.
- **California Department of Finance.** The DOF prepares and administers California’s annual budget. Other duties include estimating population demographics and enrollment projections. DOF’s.
- **Southern California Association of Governments.** Policies; programs; and employment, housing, and population projections adopted by SCAG to achieve regional objectives are in its 2012 RTP/SCS.

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### POPULATION AND HOUSING

- **United States Census Bureau.** The official United States Census is described in Article I, Section 2 of the Constitution of the United States. It calls for an actual enumeration of the people every 10 years, to be used for apportionment among the states of seats in the House of Representatives. The United States Census Bureau publishes population and household data gathered in the decennial census.

### Population

The 2013 population of the City of Los Alamitos was 11,384, and the population of the Community of Rossmoor was 10,234, for a total of 21,618 in the City and Rossmoor. The 2010 US Census counted 11,449 people in the City, and 10,244 people in Rossmoor, for a total of 21,693 in the City and Rossmoor (US Census 2013a).

The CDR projections are based on city and county general plan land use designations; 2010 US Census data; and 2010 California Employment Development Department (EDD) employment benchmark data. Population projections for the City of Los Alamitos and Orange County over the 2010–2035 period from OCP are in Table 5.8-1, *2010–2035 Population Projections*. The population of the City of Los Alamitos is forecast to grow by 557 people, or 4.9 percent, by 2035. The City's population is forecast by CDR to peak at 12,125 people in 2030 and then decline slightly by 2035. The County's population is estimated to increase by 401,872, or 13.3 percent, by 2035.

**Table 5.8-1      2010–2035 Population Projections**

| Year | City of Los Alamitos and Rossmoor |                       |                 |                | Orange County |                |
|------|-----------------------------------|-----------------------|-----------------|----------------|---------------|----------------|
|      | City of Los Alamitos              | Rossmoor <sup>1</sup> | City + Rossmoor | Percent Change | Orange County | Percent Change |
| 2010 | 11,461                            | 10,244                | 21,705          | NA             | 3,019,356     | NA             |
| 2015 | 11,806                            | 10,838                | 22,644          | 4.3%           | 3,154,580     | 4.5%           |
| 2020 | 11,985                            | 11,140                | 23,125          | 2.1%           | 3,266,107     | 3.5%           |
| 2025 | 12,016                            | 10,755                | 22,771          | -1.5%          | 3,349,157     | 2.5%           |
| 2030 | 12,125                            | 10,727                | 22,852          | 0.4%           | 3,410,773     | 1.8%           |
| 2035 | 12,018                            | 10,635                | 22,653          | -0.9%          | 3,421,228     | 0.3%           |

Source: CDR 2012.

<sup>1</sup> Population forecasts for Rossmoor are estimated based on OCP data for CDR Region J-35.

### Housing

There were an estimated 4,421 housing units in the City and 3,779 units in Rossmoor (8,200 total units) as of November 2013. Housing units and households in Los Alamitos and Orange County in January 2013 as estimated by the CDF are shown below in Table 5.8-2, *2013 Housing Units and Households by Type*. In 2010, 47.5 percent of occupied housing units in the City were owner occupied and 52.5 percent were renter occupied.



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**Table 5.8-2 2013 Housing Units and Households by Type**

| Type                           | Los Alamitos | Percent       | Orange County    | Percent       |
|--------------------------------|--------------|---------------|------------------|---------------|
| Single-Family Detached         | 2,074        | 47.5%         | 536,562          | 50.8%         |
| Single-Family Attached         | 371          | 8.5%          | 127,833          | 12.1%         |
| Multi-Family (2-4 Units)       | 766          | 17.6%         | 92,145           | 8.7%          |
| Multi-Family (5 or More Units) | 1,050        | 24.1%         | 266,124          | 25.2%         |
| Mobile Homes                   | 101          | 2.3%          | 33,531           | 3.2%          |
| <b>Total</b>                   | <b>4,362</b> | <b>100.0%</b> | <b>1,056,195</b> | <b>100.0%</b> |
| Occupied                       | 4,219 Units  |               | 999,552 Units    |               |
| Vacancy Rate                   | 3.3%         |               | 5.4%             |               |

Source: CDF 2013.

As shown in Table 5.8-3, *Los Alamitos and Rossmoor Average Household Size*, the average household size in the City in 2010 was 2.66 persons, and the average household size for the City and SOI in 2010 was 2.77 persons (US Census 2013a).

**Table 5.8-3 Los Alamitos and Rossmoor Average Household Size**

|              | Total Units  | Occupied Units | Vacancy Rate, percent | Average Household Size, Persons |
|--------------|--------------|----------------|-----------------------|---------------------------------|
| Los Alamitos | 4,355        | 4,212          | 3.3                   | 2.66                            |
| Rossmoor     | 3,710        | 3,631          | 2.1                   | 2.82                            |
| <b>Total</b> | <b>8,065</b> | <b>7,843</b>   | <b>2.8</b>            | <b>2.77</b>                     |

Source: US Census 2013.

Numbers of housing units in Los Alamitos, Rossmoor, and Orange County over the 2010–2035 period forecast by the CDR are shown in Table 5.8-4, *2010–2035 Housing Units Projections*.

**Table 5.8-4 2010–2035 Housing Units Projections**

| Year | City of Los Alamitos and Rossmoor |                       |                 |                | Orange County |                |
|------|-----------------------------------|-----------------------|-----------------|----------------|---------------|----------------|
|      | City of Los Alamitos              | Rossmoor <sup>1</sup> | City + Rossmoor | Percent Change | Orange County | Percent Change |
| 2010 | 4,324                             | 3,710                 | 8,034           | NA             | 1,050,330     | NA             |
| 2015 | 4,373                             | 3,705                 | 8,078           | 0.5%           | 1,076,158     | 2.5%           |
| 2020 | 4,388                             | 3,709                 | 8,097           | 0.2%           | 1,105,238     | 2.7%           |
| 2025 | 4,402                             | 3,710                 | 8,112           | 0.2%           | 1,140,571     | 3.2%           |
| 2030 | 4,419                             | 3,711                 | 8,130           | 0.2%           | 1,160,556     | 1.8%           |
| 2035 | 4,436                             | 3,714                 | 8,150           | 0.2%           | 1,180,929     | 1.8%           |

Source: CDR 2012

<sup>1</sup> Housing unit forecasts for Rossmoor are estimated based on OCP data for CDR Region J-35.

Housing growth has occurred in the City since 2010; therefore, the current estimated number of housing units (4,421 units) is slightly greater than the OCP forecast for 2030 (4,419 units). The number of housing

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units in the City is forecast to grow by 112 units, or 2.6 percent, between 2010 and 2035 and the number of units in the county by 130,599 units, or 12.4 percent, over the same period. The number of housing units in Rossmoor is estimated to remain very close to the 3,710 units present in 2010. The number of units in the City and Rossmoor is projected to gradually increase by 116 units, or 1.4 percent, between 2010 and 2035.

### Employment

There were an estimated 14,265 jobs in Los Alamitos and 395 jobs in Rossmoor in November 2013, for a total of 14,660 jobs. There were 13,442 jobs in Los Alamitos in 2011 as estimated by the US Census Bureau. Estimated employment in Orange County in 2011 was 1,326,589. Los Alamitos residents held 5,096 jobs in 2011 (US Census 2013b). Rossmoor residents held 4,346 jobs in 2010 (US Census 2013b).

Numbers of jobs in the City and the jobs of City residents, by industrial sector, are shown in Table 5.8-5, *Los Alamitos 2011 Employment by Industrial Sector*. Note that the number of jobs in Los Alamitos is more than 2.5 times the number of jobs of Los Alamitos residents. The three largest employers in the City during the 12 months ending in June 2012—in descending order by number of employees—were Los Alamitos Medical Center, Arrowhead Products, and Trend Offset Printing Services (Los Alamitos 2013).

**Table 5.8-5 Los Alamitos 2011 Employment by Industrial Sector**

| Industrial Sector                                                                        | Jobs in City of Los Alamitos |                       | Jobs of City of Los Alamitos Residents |                       |
|------------------------------------------------------------------------------------------|------------------------------|-----------------------|----------------------------------------|-----------------------|
|                                                                                          | Jobs                         | Percent of Total Jobs | Jobs                                   | Percent of Total Jobs |
| Agriculture, Mining, Oil and Gas Extraction                                              | 49                           | 0.4%                  | 22                                     | 0.4%                  |
| Manufacturing, Construction, and Utilities                                               | 2,464                        | 18.3%                 | 703                                    | 13.8%                 |
| Wholesale Trade, Retail Trade, Transportation and Warehousing                            | 1,876                        | 14.0%                 | 932                                    | 18.3%                 |
| Information, Finance and Insurance, and Real Estate                                      | 746                          | 5.5%                  | 409                                    | 8.0%                  |
| Professional, Scientific, and Technical Services                                         | 892                          | 6.6%                  | 333                                    | 6.5%                  |
| Management of Companies; and Administration & Support, Waste Management and Remediation  | 1,030                        | 7.7%                  | 368                                    | 7.2%                  |
| Educational Services, Health Care, and Social Assistance                                 | 4,178                        | 31.1%                 | 1,278                                  | 25.1%                 |
| Arts, Entertainment, and Recreation; Accommodation and Food Services; and Other Services | 2,037                        | 15.2%                 | 811                                    | 15.9%                 |
| Public Administration                                                                    | 170                          | 1.3%                  | 240                                    | 4.7%                  |
| <b>Total</b>                                                                             | <b>13,442</b>                | <b>100%</b>           | <b>5,096</b>                           | <b>100%</b>           |

Source: US Census 2013b.

Employment projections for Los Alamitos, Rossmoor, and Orange County from 2010 through 2035 from the CDR are shown below in Table 5.8-6, *2010–2035 Employment Projections*. Note that there has been some job growth in Los Alamitos between 2010 and 2013 since the 2013 estimate, 14,265, is the same as the OCP estimate for 2020 shown in the following table. Note also that minimal change in employment—about 0.2

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percent—is forecast for the City and Rossmoor combined between 2020 and 2035, and minimal change is forecast for Rossmoor over the whole 2010–2035 period.

**Table 5.8-6 2010–2035 Employment Projections**

|      | City of Los Alamitos and Rossmoor |                       |                 |                | Orange County |                |
|------|-----------------------------------|-----------------------|-----------------|----------------|---------------|----------------|
|      | City of Los Alamitos              | Rossmoor <sup>1</sup> | City + Rossmoor | Percent Change | Orange County | Percent Change |
| 2010 | 13,795                            | 395                   | 14,190          | NA             | 1,490,296     | NA             |
| 2015 | 14,031                            | 394                   | 14,425          | 1.7%           | 1,546,865     | 3.8%           |
| 2020 | 14,265                            | 393                   | 14,658          | 1.6%           | 1,625,805     | 5.1%           |
| 2025 | 14,282                            | 393                   | 14,675          | 0.1%           | 1,684,908     | 3.6%           |
| 2030 | 14,292                            | 393                   | 14,685          | 0.1%           | 1,738,032     | 3.2%           |
| 2035 | 14,298                            | 393                   | 14,691          | 0.0%           | 1,778,845     | 2.3%           |

Source: CDR 2012.

<sup>1</sup> Employment forecasts for Rossmoor for 2015-2035 are estimated based on OCP data for CDR Region J-35.

The unemployment rate in Orange County in October 2013 was estimated at 5.8 percent, and the unemployment rate in Los Alamitos estimated at 3.2 percent for the same month by the EDD. The unemployment rate for Rossmoor during this time period was 3.6 percent (EDD 2013).

### Jobs-Housing Balance

The jobs-housing ratio is a general measure of the total number of jobs compared to the number of housing units in a defined geographic area, without regard to economic constraints or individual preferences. The balance of jobs and housing in an area, in terms of the total number of jobs and housing units as well as the type of jobs versus the price of housing, has implications for mobility, air quality, and the distribution of tax revenues. The jobs-housing ratio is one indicator of a project's effect on growth and quality of life in the project area. SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A major focus of SCAG's regional planning efforts has been to improve this balance. Jobs-housing goals and ratios are advisory only. No ideal jobs-housing ratio is adopted in state, regional, or city policies. A job-housing imbalance is an indication of potential air quality and traffic problems associated with commuting.

As shown in Table 5.8-7, the jobs-housing balance in Los Alamitos is forecast to increase slightly from 3.11 to 3.22 between 2010 and 2035; both figures are jobs-rich. The jobs-housing balance in Orange County is estimated to increase slightly from 1.42 to 1.51 during the same period; both figures are slightly jobs-rich.

The jobs-rich ratio in Los Alamitos reflects the mix of land uses in the City. Only 409 acres of the City, or 15.6 percent, consists of residential land uses—a smaller proportion than many other suburban cities. Roughly half of the City is occupied by Los Alamitos Joint Forces Training Base (JFTB), and most of the part of the City bounded by Katella Avenue on the south and Cerritos Avenue on the north consists of commercial, industrial, and health care uses (see Figure 3-3, *Existing Land Uses*).

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The jobs-housing balance in Rossmoor, 0.11, reflects the land use mix in that community. The great majority of the land use is residential; the only employment-generating land uses are four schools and a small commercial area at the northeast corner of the community. The jobs-housing balance in Rossmoor is projected to remain nearly constant between 2010 and 2035.

The jobs-housing ratio of the City and SOI, 1.82, is somewhat jobs-rich. This jobs-housing ratio is forecast to become slightly more jobs rich, at 1.86, by 2035.

It is SCAG's goal that regions be balanced respecting jobs and housing. SCAG does not aim at balancing jobs and housing within particular cities, and Los Alamitos is a relatively small city in land area; the whole project area is 5.66 square miles. Thus, the data in Table 5.8-7 are for comparison only and do not reflect SCAG policy regarding the City of Los Alamitos.

**Table 5.8-7      Jobs-Housing Balance**

|               | Year | Employment | Housing Units | Jobs-Housing Ratio |
|---------------|------|------------|---------------|--------------------|
| Los Alamitos  | 2010 | 13,442     | 4,324         | 3.11               |
|               | 2020 | 14,265     | 4,388         | 3.25               |
|               | 2035 | 14,298     | 4,436         | 3.22               |
| Rossmoor      | 2010 | 395        | 3,710         | 0.11               |
|               | 2020 | 393        | 3,709         | 0.11               |
|               | 2035 | 393        | 3,714         | 0.11               |
| Total         | 2010 | 14,633     | 8,034         | 1.82               |
|               | 2020 | 15,100     | 8,097         | 1.86               |
|               | 2035 | 15,132     | 8,150         | 1.86               |
| Orange County | 2010 | 1,490,296  | 1,050,330     | 1.42               |
|               | 2020 | 1,625,805  | 1,105,238     | 1.47               |
|               | 2035 | 1,778,845  | 1,180,292     | 1.51               |

Source: CDR 2012.

### 5.8.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- P-1 Induce substantial 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).
- P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- P-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

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The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold P-2
- Threshold P-3

These impacts will not be addressed in the following analysis.

### 5.8.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.8-1:** The proposed project would result in an increase of 1,385 people and 3,770 employees in the City of Los Alamitos and Rossmoor; however, the General Plan Update accommodates future growth in the City by providing for infrastructure and public services to accommodate this projected growth. [Threshold P-1]

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**Impact Analysis:** One of the purposes of the General Plan Update is to adequately plan and accommodate future growth. As discussed in Chapter 3, of this DEIR, implementation of the General Plan Update would result in an increase of 1,385 people and 3,770 employees in the City and Rossmoor.

#### Housing and Population Growth

The General Plan Update would permit development of a net increase of up to 532 residential units for a total of 8,735 units, which would result in a net increase of 1,385 people in the City and Rossmoor. At General Plan Update buildout the estimated total population of the City and SOI would be 23,003, a 6.4 percent increase in population compared to existing conditions.

The forecast population of the City and Rossmoor at General Plan buildout would slightly exceed the existing regional population forecast for 2035 (22,653 persons) by 350 persons, or 1.5 percent. The estimated number of housing units in the City and Rossmoor at General Plan buildout would exceed the existing regional housing forecast for 2035 (8,150 units) by 585 units, or 7.2 percent. However, General Plan Update buildout could occur after the 2035 horizon. Thus, the increases in population and housing due to General Plan Update buildout compared to regional forecasts for 2035 would not be a substantial adverse impact.

#### Employment Growth

Los Alamitos has a large daytime population due to its employment-generating land uses. Buildout of the General Plan Update would entail an increase of 903,465 nonresidential square feet in the City and SOI for office, commercial, retail, industrial, and mixed uses. Consequently, the General Plan Update would accommodate 18,430 employees in the City and SOI. The General Plan Update would result in a net increase in employment of 3,770 employees, a 25.7 percent increase in employment compared to existing conditions, all of which would be in Los Alamitos except for 13 more employees in Rossmoor. General Plan

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Update buildout could occur over a longer buildout horizon than 2035. Therefore, the increase in employment due to General Plan Update buildout compared to regional forecasts for 2035 would not be a substantial adverse impact.

#### Jobs-Housing Balance

The forecast jobs-housing balance in Los Alamitos and Rossmoor at buildout is shown in Table 5.8-8, *Jobs-Housing Balance at General Plan Buildout*. The jobs-housing balance in Los Alamitos and the SOI would be 2.11, an increase of 0.32 jobs per housing unit compared to 2013, which means the City of Los Alamitos would continue to draw a large daytime population due to the amount of employment-generating land uses in the City. SCAG policy aims to balance jobs and housing within the regions, not within specific cities or communities. Therefore, the analysis of impacts on jobs-housing balance is for comparison only; the impact would not be a significant impact under CEQA.

**Table 5.8-8 Jobs-Housing Balance at General Plan Buildout**

|                | Existing 2013 |               |                    | General Plan Buildout 2035 |               |                    | Change from Existing |
|----------------|---------------|---------------|--------------------|----------------------------|---------------|--------------------|----------------------|
|                | Employment    | Housing Units | Jobs-Housing Ratio | Employment                 | Housing Units | Jobs-Housing Ratio |                      |
| Los Alamitos   | 14,265        | 4,424         | 3.22               | 18,022                     | 4,772         | 3.78               | 0.55                 |
| Rossmoor (SOI) | 395           | 3,779         | 0.10               | 408                        | 3,963         | 0.10               | 0                    |
| Total          | 14,660        | 8,203         | 1.79               | 18,430                     | 8,735         | 2.11               | 0.32                 |

#### Conclusion

Implementation of the General Plan Update would directly induce population and employment growth in the area. However, the General Plan Update accommodates future growth in the City by providing for infrastructure and public services to accommodate this projected growth (see Sections 5.9, *Public Services*, 5.11, *Transportation and Traffic*, and 5.12, *Utilities and Service Systems*). Therefore, implementation of the proposed project would result in a less than significant impact relating to population and employment growth.

### 5.8.4 Applicable General Plan Policies

#### Housing Element

- **Policy Action 1.1:** Proactive Code Enforcement
- **Policy Action 1.2:** Single-Family Rehabilitation Loan Program
- **Policy Action 1.3:** Mobile Home Exterior Grant Program
- **Policy Action 1.4:** Community-Based Neighborhood Enhancement
- **Policy Action 1.5:** Rehabilitation of Multi-family Dwellings

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- **Policy Action 2.1:** Preservation of Units At-Risk of Converting to Market Rate
- **Policy Action 2.2:** Section 8 Housing Choice Rental Assistance Program
- **Policy Action 2.3:** Energy Conservation
- **Policy Action 3.1** Housing for Persons with Disabilities
- **Policy Action 3.2:** Fair Housing Information and Referrals
- **Policy Action 4.1:** Incentives for Development of Housing Affordable to Extremely-Low, Very-Low, Low and Moderate Income Households
- **Policy Action 4.2:** Encourage and Facilitate Lot Consolidation
- **Policy Action 4.3:** Monitor Multi-Family Development Fees
- **Policy Action 5.1:** Housing Programs Information Dissemination
- **Policy Action 5.2:** Pursue External Funding for Housing Rehabilitation, Preservation and Production
- **Policy Action 5.3:** Housing Related to Employment Centers
- **Policy Action 5.4:** Partnerships and Coordination with Developers and Outside Agencies
- **Policy 5.5:** Promote Community Participation

### Land Use Element

- **Policy 1.2 Public investments** - Invest in public improvements to transform Los Alamitos Boulevard into an attractive and pedestrian-friendly street.
- **Policy 1.3 Diverse businesses and activities** - Attract and retain a variety of shopping, dining, and entertainment options for residents and visitors in the town center. Encourage the creation of daytime, nighttime, and weekend activity in the town center.
- **Policy 2.2 Mix of land uses** - Maintain a balanced mix of residential, retail, employment, industrial, open space, and public facility land uses.
- **Policy 2.3 Maximize retail along Katella** - Maximize community- and regional-scale retail opportunities along Katella Avenue. For parcels 10 acres or larger along Katella Avenue, support the conversion to community- and regional-scale retail.

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- **Policy 2.4 Town center uses** - Maximize shopping, dining, arts, and entertainment uses in the town center.
- **Policy 2.5 Skilled jobs** - Attract and retain businesses that provide highly skilled and well-paid jobs.
- **Policy 2.6 Medical uses** - Leverage the medical center as a key anchor, concentrating medical uses around the campus and encouraging complementary uses.
- **Policy 2.7 Quality of life uses** - Maintain, improve, and expand uses that define and enhance the City's quality of life, including parks, trails, open spaces, and public facilities.
- **Policy 3.1 Compatibility** - Require that new nonresidential development is located, scaled, and designed to be compatible with existing adjacent neighborhoods and uses.
- **Policy 3.2 Economic viability** - Preserve the economic viability and continuity of existing commercial and industrial businesses.

#### 5.8.5 Existing Regulations and Standard Conditions

##### State

- California Government Code Section 65300: California Housing Element Law

##### Regional

- Regional Housing Needs Assessment (RHNA) Allocation Plan, Southern California Association of Governments, 2012.

#### 5.8.6 Level of Significance Before Mitigation

Upon implementation of regulations and standard conditions, impact 5.8-1 would be less than significant.

#### 5.8.7 Mitigation Measures

No mitigation is required.

#### 5.8.8 Level of Significance After Mitigation

Impacts would be less than significant.



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### POPULATION AND HOUSING

#### 5.8.9 References

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### 5.9 PUBLIC SERVICES

This section of the Draft Environmental Impact Report (DEIR) addresses the potential for implementation of the City of Los Alamitos General Plan Update to impact public services in the City of Los Alamitos and its sphere of influence (SOI), the community of Rossmoor, including fire protection and emergency services, police protection, school services, and library services. Park services are addressed in Section 5.10, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.12, *Utilities and Service Systems*.

#### 5.9.1 Fire Protection and Emergency Services

##### 5.9.1.1 ENVIRONMENTAL SETTING

###### Regulatory Background

###### *State*

###### *California Fire Code*

The 2013 California Fire Code (CFC; California Code of Regulations, Title 24, Part 9), which became effective January 1, 2014, and is adopted by reference in Chapter 15.08 (Fire Code) of the City's Municipal Code, contains among others, provisions related to general safety; emergency planning and preparedness; building equipment and design features; special occupancies and operations; and hazardous materials. The CFC also contains fire safety-related building standards that are referenced in other parts of Title 24 of the California Code of Regulations.

###### *California Health and Safety Code*

Sections 13000 et seq. of the California Health and Safety Code include fire regulations for building standards (also found 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.

###### Existing Conditions

###### *Provision of Services*

Fire protection and emergency services in the City of Los Alamitos and the unincorporated community of Rossmoor are provided by the Orange County Fire Authority (OCFA); Division 1, Battalion 1. OCFA is a regional fire service agency providing fire suppression and prevention, emergency medical response, rescue response, hazardous materials coordination, and wildland management services to 23 cities in Orange County in addition to unincorporated areas. OCFA is a Joint Powers Authority, which enables multiple cities to contract its services, as permitted under Section 6502 of the State Government Code. This authority protects over 1,680,000 residents via 71 fire stations throughout Orange County. OCFA is divided into three departments: Operations, Fire Prevention, and Human Resources.

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The Operations Department provides emergency response to fires and hazardous materials incidents, emergency medical aid, and rescues in the City and SOI. The majority of service calls are for emergency medical service. Due to the urban nature of Los Alamitos, Rossmoor, and the surrounding communities, there is very little risk of wildland fire hazards (fires in woodland, brushland, or grassland areas). The primary fire hazard is urban fires—those that burn in developed areas and include commercial, industrial, and residential structure fires.

The Fire Prevention Department consists of four sections. The Planning and Development Services section works with the development community and municipal staff to ensure that building and developments meet state and local fire and life safety requirements. The Safety and Environmental Services section enforces codes and ordinances relative to hazardous materials and fire and life safety issues associated with commercial, industrial, and residential development. The Pre-Fire Management section takes a proactive approach to fire through the systematic mitigation of risk in the OCFA communities. Finally, the Investigation Services section is responsible for investigating or reviewing fires and determining appropriate intervention strategies.

The Human Resources Department coordinates OCFA employment, the volunteer programs, public education programs, and administration activities.

OCFA has one fire station in Los Alamitos, as shown in Table 5.9-1, *OCFA Fire Stations Serving the City of Los Alamitos*, and Figure 5.9-1, *Public Facilities*. Two additional stations, in Seal Beach and Cypress, also provide year-round service to the City of Los Alamitos.

**Table 5.9-1 OCFA Fire Stations Serving the City of Los Alamitos and SOI**

| Station                                                           | Equipment and Personnel                                                                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| OCFA Station No. 2<br>3642 Green Avenue<br>Los Alamitos, CA 90720 | Equipment: 1 paramedic assessment unit engines<br>Personnel: 1 Fire Captain, 1 Engineer, 1 Firefighter/Paramedic                   |
| OCFA Station No. 17<br>4991 Cerritos Avenue<br>Cypress, CA        | Equipment: 1 BLS Engine, 1 Truck, 1 Medic Van<br>Personnel: 2 Fire Captains, 2 Engineers, 3 Firefighters, 2 Firefighter Paramedics |
| OCFA Station No. 48<br>3131 Beverly Manor Road<br>Seal Beach, CA  | Equipment: 1 BLS Engine and 1 Medic Van<br>Personnel: 1 Fire Captain, 1 Engineer, 1 Firefighter, 2 Firefighter Paramedics          |
| Source: Hernandez 2014.<br>Bureau of Labor Statistics (BLS)       |                                                                                                                                    |

OCFA Division 1 administration, operations, and community safety functions are based at 3642 Green Avenue in Los Alamitos, OCFA Station No. 2. The OCFA Fire Prevention Office serving Division 1 is based at 8081 Western Avenue in Buena Park. OCFA Station No. 17 in the City of Cypress and OCFA Station No. 48 in the City of Seal Beach are less than two miles from Los Alamitos and provide additional fire services to the City and SOI as needed. Figure 5.9-1 also identifies the Los Alamitos Joint Forces Training Base (JFTB) Fire Department station, which also provides supplemental fire support services to the City and SOI through

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### PUBLIC SERVICES

a mutual aid agreement, which is described further below. Los Alamitos also has a mutual aid agreement with the Long Beach Fire Department and Los Angeles County Fire Department.

#### *Response Activity*

Response activity statistics for OCFA Stations No. 2, 17 and 48 from 2010 to 2013 are summarized in Table 5.9-2. The data shows that the number of calls received by the local fire departments has increased, at an average rate of just under 4 percent per year, which is roughly four times the population growth during the same time period. Only about 2.5 percent of incident calls received by Fire Station No. 2 between 2010 and 2013, and an average of about 1.5 percent of incident calls received by OCFA Stations No. 17 and 48 in that time, were for fires.

**Table 5.9-2 Response Statistics for OCFA Fire Stations for Fiscal Years 2010 to 2013**

| Year                  | Fires | Medical Calls | Other* | Total Calls |
|-----------------------|-------|---------------|--------|-------------|
| <b>Station No. 2</b>  |       |               |        |             |
| 2010                  | 27    | 772           | 244    | 1,043       |
| 2011                  | 30    | 753           | 297    | 1,080       |
| 2012                  | 23    | 866           | 279    | 1,168       |
| <b>Station No. 17</b> |       |               |        |             |
| 2010                  | 45    | 1,783         | 725    | 2,553       |
| 2011                  | 60    | 1,871         | 622    | 2,553       |
| 2012                  | 38    | 1,845         | 736    | 2,619       |
| <b>Station No. 48</b> |       |               |        |             |
| 2010                  | 33    | 2,624         | 696    | 3,353       |
| 2011                  | 34    | 2,834         | 672    | 3,540       |
| 2012                  | 46    | 2,825         | 755    | 3,626       |

Source: OCFA Annual Report 2010, 2011, 2012.

Note: Station 48 statistics include average number of calls from two stations in Seal Beach.

\* Other calls include cancelled en route, false alarms, miscellaneous, or Specialty Service Calls.

#### *Response Times*

The National Fire Protection Association (NFPA Standard 1710, 2010) recommends the following objectives for fire departments:

- An alarm answering time of not more than 15 seconds for at least 95 percent of the alarms received, and not more than 40 seconds for at least 99 percent of the alarms received.
- When the alarm is received at a public safety answering point (PSAP) and transferred to a secondary answering point (or communication center), the agency responsible for the PSAP should have an alarm transfer time of not more than 30 seconds for at least 95 percent of all alarms processed.
- The responding fire department should have an alarm processing time (the time interval from when the alarm is acknowledged at the communication center until response information begins to be transmitted

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via voice or electronic means to emergency response facilities and units) of not more than 60 seconds for at least 90 percent of the alarms, and not more than 90 seconds for at least 99 percent of the alarms.

- Turnout time for fire and special operations of 80 seconds, and turnout time for emergency medical service response of 60 seconds.
- Travel time of 240 seconds (four minutes) or less for the arrival of the first arriving engine company at a fire suppression incident and 480 seconds (six minutes) or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident.
- Travel time of 240 seconds (four minutes) or less for the arrival of a first-responder unit with automatic external defibrillator (AED) or higher level capability at an emergency medical incident.
- Travel time of 480 seconds (six minutes) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department, provided that a first responder with AED or basic life support unit arrived in 240 seconds (four minutes) or less travel time.

OCFA's goals for the provision of fire services are listed below. The response time begins when a station receives an alert and ends when the fire unit arrives on scene. This time includes receiving the call, donning personal safety gear as required, and driving to the incident. Safety rules and seat belt laws prohibit personnel from donning safety gear while en route to an incident.

- First-in engines should arrive on-scene to medical aids and/or fires within 7 minutes and 20 seconds 80 percent of the time.
- First-in truck companies should arrive on-scene to fires within 12 minutes 80 percent of the time.
- First-in paramedic companies should arrive on-scene at all medical aids within 10 minutes 80 percent of the time.

According to OCFA, the average performance standard for responding to emergency and nonemergency calls is within 7 minutes 20 seconds 80 percent of the time, from receipt of the call to the first unit's arrival on scene (Hernandez 2014). Response times in the City of Los Alamitos and SOI can be impacted by a number of conditions. The most significant of these are the large area served by OCFA and congestion on Katella Avenue and Los Alamitos Boulevard during the late afternoons and early evenings. Staffing and equipment levels are currently optimum given the number of calls generated within the City and SOI. Staffing salary is sourced from property taxes.

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### Figure 5.9-1 Public Facilities

#### Public Facilities - General

- 1, Los Alamitos Police Dept.
- 2, OCPL Los Alamitos-Rossmoor Library

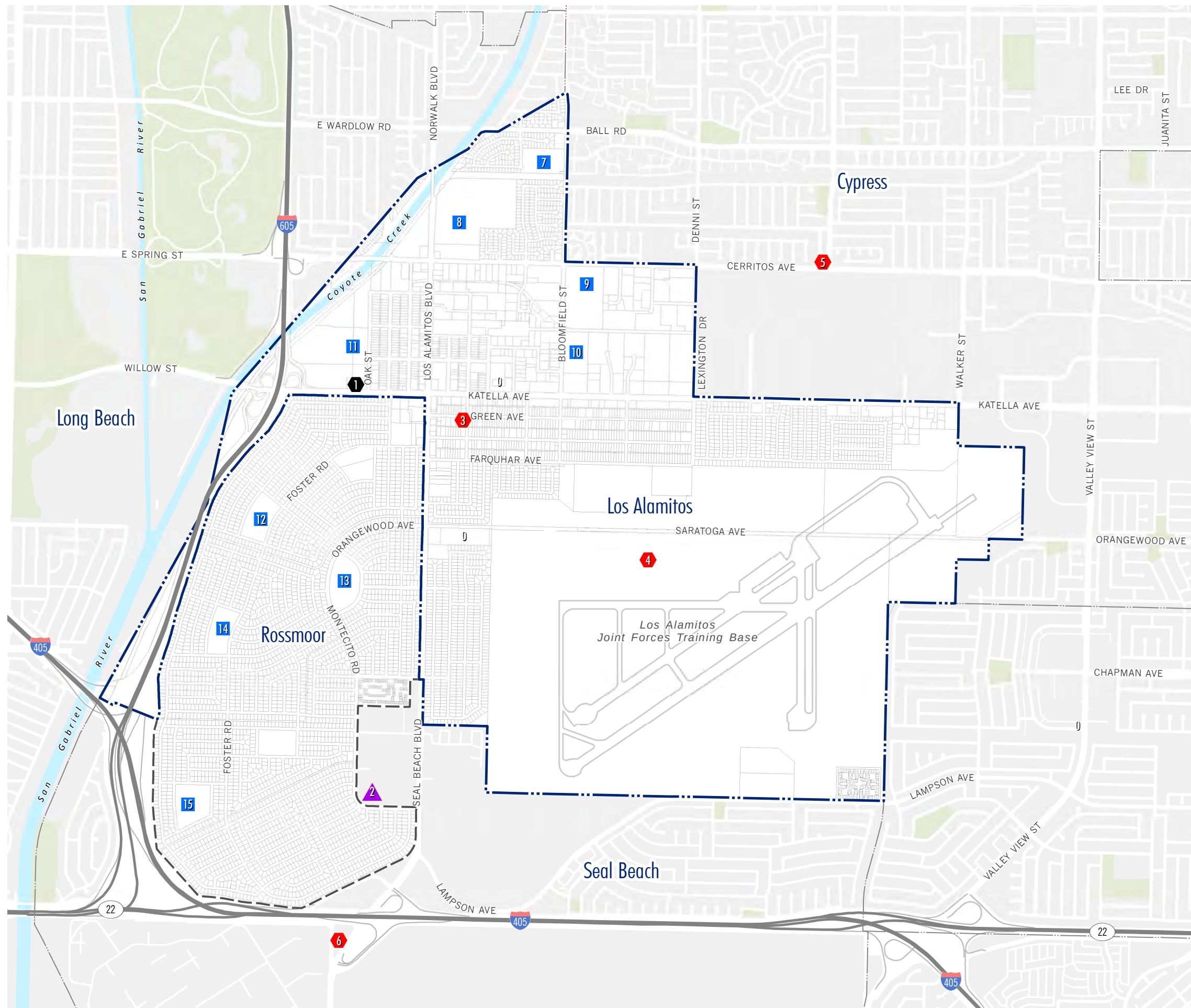
#### Fire Stations

- 3, OCFA Station No. 2
- 4, Los Alamitos JFTB Fire Department Station
- 5, OCFA Station No. 17
- 6, OCFA Station No. 48

#### Education

- 7, School District Headquarters
- 8, Los Alamitos High School
- 9, McAuliffe Middle School
- 10, Los Alamitos Elementary
- 11, Oak Middle School
- 12, Richard Henry Lee Elementary
- 13, Rossmoor Elementary
- 14, Jack L. Weaver Elementary
- 15, Francis Hopkinson Elementary

- City Boundary
- Sphere of Influence



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#### *Automatic and Mutual Aid Agreements*

Fire-fighting agencies work together during emergencies. These arrangements are handled through automatic and mutual aid agreements, which obligate fire departments to help each other under predefined circumstances. Automatic aid agreements require the nearest fire company to respond to a fire regardless of the jurisdiction. Mutual aid agreements require fire department resources to respond outside of their district upon requests for assistance.

The City of Los Alamitos is one of 23 cities in Orange County that is part of an operational area group served by OCFA. The operational area is an element of the Standardized Emergency Management System, which promotes effective disaster management, response, and cooperation across jurisdictional boundaries. As a result of being part of an operational area group, all of the jurisdictions have mutual aid agreements that allow them to obtain additional emergency resources as needed from nonaffected members in the group. Each of these cities is signatory to a joint powers agreement that provides for the joint use and operation of machinery, equipment, vehicles, and personnel in the event of a fire, disturbance, or other local emergency that cannot be met solely by the requesting city or jurisdiction. The automatic aid agreements provide for automatic dispatch of surrounding agencies when needed to replace units that are already responding to other calls (multiple alarms), in areas where two or more agencies border each other, or when the call type requires more units than the local area can provide. Mutual aid calls for units over and above what a first alarm assignment provides, generally for large incidents (such as a fire in a large shopping center or apartment complex). In both automatic aid and aid agreements, fire units are provided free of charge for the first 12 hours. After 12 hours, the agency with jurisdiction reimburses the assisting agencies for their costs.

New development (over 50 units) is required to enter into a Secured Fire Protection Agreement to provide for fair-share funding of capital improvements. This includes facilities, equipment, and radio/communications systems.

#### 5.9.1.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

- FP-1 Result in a substantial adverse physical impact associated with the provisions 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 fire protection services.

#### 5.9.1.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.



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**Impact 5.9-1:** The proposed project would introduce new structures and residents into the Orange County Fire Authority service boundaries, thereby increasing the requirement for fire protection facilities and personnel. However, sufficient revenue would be available for necessary service improvements to provide for adequate fire protection (staffing and facilities) upon buildout of the General Plan Update. [Threshold FP-1]

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**Impact Analysis:** Buildout of the General Plan Update, which includes buildout of the SOI (Rossmoor), would result in an increased number of persons, residential units, and businesses within the City of Los Alamitos and unincorporated community of Rossmoor, thereby resulting in an increase in demand for fire services. Firefighter staffing needs are determined by OCFA based on workload, response times, and reliability of actual or anticipated performance.

Under the General Plan Update, staffing levels for fire protection and emergency services in Los Alamitos would continue to be established by OCFA. Public safety in Los Alamitos and Rossmoor, including fire protection and emergency services provided by OCFA, is paid for with county revenue generated by property taxes. Although there is no direct fiscal mechanism that ensures that funding for fire and emergency services would grow exactly proportional to an increased need for services resulting from population growth in the City, property taxes would be expected to grow roughly proportionate to any increase in residential units and/or businesses in Los Alamitos and Rossmoor. OCFA would also maintain appropriate firefighter staffing to ensure compliance with the National Fire Protection Association standards for response time and coverage, as discussed above. Furthermore, policies and implementation programs in the proposed General Plan Update encourage maintaining staffing, facilities, and training activities to effectively respond to general and emergency public service calls.

As the City's population increases and due to the increase in non-residential square footage under buildout of the General Plan Update, additional fire stations may be required. OCFA will continue to monitor the need for additional fire stations, and despite the predicted increase in population, OCFA does not currently foresee the need for additional fire stations within the next five years. Additionally, Fire Stations No. 17 and 48 have been recently re-built. New developments over 50 units would also be required to enter into a Secured Fire Protections Agreement to provide for fair-share funding of capital improvements (Hernandez 2014). Should additional fire stations be needed to serve buildout of the General Plan Update, various localized environmental impacts related to construction of these stations may occur. Development and operation of new facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. However, since specific site locations have not been selected, it would be speculative to analyze these impacts as part of this first-tier, program-level DEIR, other than to note that such impacts would likely fall within the envelope of construction impacts analyzed elsewhere in other topical areas of Chapter 5 of this DEIR as part of the buildout analysis. However, buildout of the General Plan Update considers an increase in non-residential square footage, which includes public facilities. Consequently, construction of new public facilities is addressed throughout the topical areas of this DEIR. Environmental impacts associated with construction and/or expansion of service facilities in accordance with the proposed Land Use Plan are addressed separately (see the topical sections for air quality, greenhouse gas emissions, and noise in Chapter 5, *Environmental Impacts*). Future environmental review would occur once specific fire station locations (if needed) have been determined.

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In addition, if construction impacts of development projects that would be accommodated by the General Plan Update necessitate the closure of roadways that serve a particular project, project applicants would be required to coordinate road closures and emergency access with OCFA and the City to ensure that adequate access for emergency vehicles is provided and that an adequate level of fire protection services is maintained at the adopted service levels. Future development projects that would be accommodated by the General Plan Update would also be reviewed by the City of Los Alamitos and OCFA on an individual basis and would be required to comply with requirements in effect at the time building permits are issued. For example, during the development review and permitting process, OCFA would review and approve individual development projects to ensure that adequate fire facilities, infrastructure, and access are provided to serve the needs of OCFA. Development projects would also be required to comply with the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of Los Alamitos, Orange County, and the State of California.

Policies and programs in the proposed General Plan Update are also designed to ensure collaboration between City departments, OCFA, and other involved agencies to achieve the City's development goals in phases, working within the budget and infrastructure constraints of the City. Following this process, sufficient revenue would be available for necessary service improvements to provide for adequate fire facilities, equipment, and personnel upon buildout of the General Plan Update.

Therefore, project implementation impacts on fire protection and emergency services and facilities are less than significant.

#### 5.9.1.4 APPLICABLE GENERAL PLAN POLICIES

##### Public Facilities and Safety Element

- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.
- **Policy 2.1 Police and fire service** - Maintain staffing, facilities, and training activities to effectively respond to emergency and general public service calls. Continue to contract fire protection services with the Orange County Fire Authority.
- **Policy 2.2 Public safety hot spots** - Prioritize improvement and enforcement activities to minimize existing and prevent future public safety hot spots.
- **Policy 2.3 Interagency support** - Participate in mutual aid system and automatic aid agreements to back up and supplement capabilities to respond to emergencies.
- **Policy 2.4 Interagency communications** - Maintain an effective communication system between emergency service providers within Los Alamitos, Rossmoor, and neighboring jurisdictions.

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- **Policy 2.5 Emergency preparedness planning** - Maintain an emergency operations plan and an emergency operations center and develop a hazard mitigation plan to prepare for actual or threatened conditions of disaster or extreme peril.

#### 5.9.1.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### Federal Regulations

- National Fire Protection Association Code 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.

##### State Regulations

- 2013 California Fire Code (CFC; California Code of Regulations, Title 24, Part 9) as adopted by the City of Los Alamitos

#### 5.9.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.9-1 would be less than significant.

#### 5.9.1.7 MITIGATION MEASURES

No significant impacts were identified and no mitigation measures are necessary.

#### 5.9.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant adverse impacts were identified and no significant unavoidable impacts relating to fire protection and emergency services remain.

### 5.9.2 Police Protection

#### 5.9.2.1 ENVIRONMENTAL SETTING

##### Regulatory Background

There are no applicable federal, state, or local regulations regarding police services.

##### Existing Conditions

The Los Alamitos Police Department provides police protection in Los Alamitos, and the Orange County Sheriff's Department provides police protection for Rossmoor.

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#### *Los Alamitos Police Department*

The Los Alamitos Police Department is based at their station at 3201 Katella Avenue in Los Alamitos (shown in Figure 5.9-1, *Public Facilities*). The Los Alamitos Police Department provides police services, including neighborhood patrols, investigations, traffic enforcement, community support, drug education, parking control, and crime prevention. The Los Alamitos Police Department consists of the Operations and Support Services divisions. The Operations Division conducts activities that are directly related to enforcement. It encompasses the Patrol Bureau, Detective Bureau, Traffic Bureau, personnel and training, the reserve officer program, public information, and professional standards. The primary responsibility of the Patrol Bureau is to ensure the safety and security of the community. The Support Services Division is overseen by a civilian manager and encompasses special programs and those police functions that are not directly related to operations. This includes the Records Bureau, court liaison, property and evidence, facilities, emergency preparedness, information technology, administration of the department's grants and budget, animal control, and the community outreach program. The Los Alamitos Police Department's staffing level is determined based on crime rates and adequate response times.

Response time to calls for service may vary depending on their location at time of dispatch. Response time requirements are classified by priority; Priority 1, 2, or 3. The Los Alamitos Police Department's performance standard for responding to urgent or Priority 1 calls within its service area is under three minutes. There is no performance measure for nonemergency calls. The total average response time (including dispatch of a call) for calendar year 2013 was 2:37 for Priority 1 calls. Based on this information, response times for Priority 1 calls are within the Los Alamitos Police Department's performance standard response times. For nonemergency calls, the average response time in 2013 was 4:23 for Priority 2 calls and 5:07 for Priority 3 calls. Calls for service are prioritized according to the following criteria (Mattern 2014):

- Priority 1 calls are dispatched immediately.
- Priority 2 calls are dispatched as soon as possible.
- Priority 3 calls are dispatched as soon as a unit is available.

Priority 1 calls are life-threatening or in-progress felony incidents, and the industry standard response time is four to five minutes from the time the call is received to the police officer's on-scene time. Priority 2 calls are in-progress misdemeanors (i.e., vandalism, disturbances, burglar alarms), and the industry standard response time is 15 minutes or less.

Per the Los Alamitos Police Department, personnel and equipment are adequate to maintain the department's patrol minimums. Minimums were established for safety and to ensure officer availability for expedited response times. The Los Alamitos police station, however, is experiencing some age-related infrastructure issues, and lacks adequate space for efficient operations and workflow. As laws and technology expand the scope of work performed by police personnel, additional space is needed for processing/retention of biological evidence and specialized equipment for officers (Mattern 2014).

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#### *Orange County Sheriff's Department*

The Orange County Sheriff's Department (Sheriff's Department) provides police protection services to Rossmoor from its West Substation in the City of Stanton at 11100 Cedar Street. Sheriff's Department services include staffing for calls for service, preventive patrol, traffic enforcement, and specialized enforcement,

The current Sheriff's Department West Substation in the City of Stanton is adequate to handle the existing personnel and equipment employed and used by the Sheriff's Department (Gunzel 2014). Response time to calls for service may vary depending on their location at time of dispatch. Response time requirements are classified by priority; Priority 1, 2, or 3. The Sheriff's Department's response time goal is to respond to Priority 1 calls within five minutes. In February 2014 the average response time for Priority 1 calls in Rossmoor was approximately 4:38, including dispatch time (Gunzel 2014). Based on this information, response times for Rossmoor for Priority 1 calls are within industry standard and the Sheriff's Department's performance standard response times.

#### *Automatic and Mutual Aid Agreements*

The Sheriff's Department maintains mutual aid agreements with surrounding cities. On major planned or emergency events, outlying cities supply manpower and resources to assist. Depending on the event, reimbursement to the contributing agency may be necessary. City, county, and state mutual aid agreements exist for a variety of situations. The Sheriff's Department and Los Alamitos Police Department embrace the concept of community-based policing, which encompasses the active participation of local government, civic and business leaders, residents, schools, churches, public and private agencies, etc.

#### 5.9.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- PP-1 Result in a substantial adverse physical impact associated with the provisions 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 police protection services.

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### 5.9.2.3 ENVIRONMENTAL IMPACTS

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**Impact 5.9-2:** The proposed project would introduce new structures, residents, and workers into the Los Alamitos Police Department's service boundaries, thereby increasing the requirement for police protection facilities and personnel. However, sufficient revenue would be available for necessary service improvements to provide for adequate police protection upon buildout of the General Plan Update. [Threshold PP-1]

---

**Impact Analysis:** Buildout of the General Plan Update, which includes buildout of the SOI (Rossmoor), would result in an increase in demand for police protection services within the City and SOI. Staffing, equipment, and facility needs are essential in maintaining effective law enforcement within the City and SOI.

Buildout is anticipated to result in an approximate total of 1,395 new residents and 3,722 additional employees in the City and SOI compared to existing conditions (see Table 3-3, *Proposed General Plan Land Use and Buildout Projections*, in Chapter 3, *Project Description*, for complete buildout projections). Additional police equipment, facilities, and personnel would be required to provide adequate response times, acceptable public service ratios, and other performance objectives for law enforcement services. Additionally, the Los Alamitos police station is experiencing some age-related infrastructure issues, and lacks adequate space for efficient operations and workflow. Any significant increases in the Los Alamitos Police Department's staffing level could not be accommodated within the existing station (Mattern 2014).

Until Rossmoor is incorporated into the City of Los Alamitos, staffing levels for police services in Los Alamitos would continue to be established by the Los Alamitos Police Department, and staffing levels for police services in Rossmoor would continue to be established by the Sheriff's Department. If Rossmoor were incorporated into the City of Los Alamitos, the Los Alamitos Police Department would provide police services to Rossmoor. Consequently, additional staffing, equipment, and facilities in the Los Alamitos Police Department would be necessary to ensure the same level of service to the residents and businesses of the City and Rossmoor. Buildout of the General Plan Update includes buildout of the SOI; thereby, resulting in an increase in demand for police protection services within the City and SOI.

Public safety in Los Alamitos, including police protection services, is paid for from the City's General Fund. General Fund revenues are collected from property, sales, and utility users' taxes. There is no direct fiscal mechanism that ensures that funding for police services would grow exactly proportional to an increased need for police services resulting from population growth in the City. However, revenue sources that contribute to funding the City's General Fund would be expected to grow in rough proportion to any increase in residential units and/or businesses in Los Alamitos. The revenue generated by existing land uses within the City and SOI (if incorporated) and new growth in the City and SOI would be used to supply the Los Alamitos Police Department with additional police officers, professional staff, equipment, etc., as they see fit.

There are no plans or immediate needs to expand the current policing facilities and personnel as a result of implementation of the General Plan Update. As noted by the Los Alamitos Police Department, realistic changes the current policing facilities and personnel are anticipated to occur more than five years into the future (Mattern 2014). Furthermore, policies and implementation programs in the proposed General Plan Update require that police protection services reflect the growing needs of residents. In particular, Policy 2.2

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of the Public Facilities and Safety Element requires that the City prioritize enforcement activities to minimize existing and prevent future public safety hot spots.

Additionally, future development projects that would be accommodated by the General Plan Update would be reviewed by the City on an individual basis and would be required to comply with regulations in effect at the time building permits are issued (e.g., payment of impact fees), or if an initial study is prepared and impacts are determined to be significant, the project would be required to comply with project-specific mitigation measures. The need for additional structures and personnel would be financed through the City's General Fund, and the impacts of General Plan Update on police services would be less than significant.

Furthermore, should an additional police station be required to serve buildout of the General Plan Update, various localized environmental impacts may result from the construction of a new police facility. Development and operation of new facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. However, the physical impacts cannot be analyzed in this DEIR because the locations and sizes of these facilities are unknown. Since specific site locations have not been selected, it would be speculative to analyze these impacts as part of this first-tier, program-level DEIR, other than to note that such impacts would likely fall within the envelope of construction impacts analyzed elsewhere in other topical areas of Chapter 5 of this DEIR as part of the buildout analysis. However, buildout of the General Plan Update considers an increase in non-residential square footage, which includes public facilities. Consequently, construction of new public facilities is inherently addressed throughout the other topical areas of this DEIR. Environmental impacts associated with construction and/or expansion of service facilities in accordance with the proposed Land Use Plan are addressed separately (see the topical sections for air quality, greenhouse gas emissions, and noise in Chapter 5, *Environmental Impacts*). Future environmental review would occur once specific police station locations (if needed) have been determined.

Therefore, implementation of the General Plan Update would not result in adverse physical impacts on police services and facilities.

#### 5.9.2.4 APPLICABLE GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS

##### Public Facilities and Safety Element

- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.
- **Policy 2.1 Police and fire service** - Maintain staffing, facilities, and training activities to effectively respond to emergency and general public service calls.
- **Policy 2.2 Public safety hot spots** - Prioritize improvement and enforcement activities to minimize existing and prevent future public safety hot spots.
- **Policy 2.3 Interagency support** - Participate in mutual aid system and automatic aid agreements to back up and supplement capabilities to respond to emergencies.

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- **Policy 2.4 Interagency communications** - Maintain an effective communication system between emergency service providers within Los Alamitos, Rossmoor, and neighboring jurisdictions.
- **Policy 2.5 Emergency preparedness planning** - Maintain an emergency operations plan and an emergency operations center and develop a hazard mitigation plan to prepare for actual or threatened conditions of disaster or extreme peril.

#### 5.9.2.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

- City of Los Alamitos Municipal Code Chapter 2.28, Police Department
- City of Los Alamitos Municipal Code Chapter 2.56, Emergency Services

#### 5.9.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: 5.9-2.

#### 5.9.2.7 MITIGATION MEASURES

No significant adverse impacts were identified and no mitigation measures are necessary.

#### 5.9.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant adverse impacts were identified and no significant unavoidable impacts relating to police protection services remain.

### 5.9.3 School Services

#### 5.9.3.1 ENVIRONMENTAL SETTING

##### Regulatory Background

##### *State*

##### ***California State Assembly Bill 2926: School Facilities Act of 1986***

To assist in providing school facilities to serve students generated by new development, Assembly Bill (AB) 2926 was enacted in 1986 and authorized a levy of impact fees on new residential and commercial/industrial development. The ability of local governments to collect fees was limited by California Senate Bill 50, the Leroy F. Greene School Facilities Act of 1998.

##### ***California Senate Bill 50***

Senate Bill (SB) 50, passed in 1998, provided a comprehensive school facilities financing and reform program and enabled a statewide bond issue to be placed on the ballot. Under the provisions of SB 50, school districts are authorized to collect fees to offset the costs associated with increasing school capacity as a result of development and related population increases. The funding goes to acquiring school sites, constructing new



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school facilities, and modernizing existing school facilities. SB 50 establishes a process for determining the amount of fees developers would be charged to mitigate the impact of development on school districts from increased enrollment. According to Sections 65595 and 65996 of the California Government Code, development fees are deemed to be “full and complete school facilities mitigation.”

Under this legislation, there are three levels of developer fees that may be imposed upon new development by the governing school district. Level I fees are assessed based upon the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the costs of accommodating students in new schools, and the state provides the remaining half. To qualify for Level II fees, the governing board of the school district must adopt a School Facilities Needs Analysis and meet other prerequisites in accordance with Section 65995.6 of the California Government Code. Level III fees apply if the state runs out of bond funds, allowing the governing school district to impose 100 percent of the cost of school facility or mitigation minus any local dedicated school monies on the developer.

### Existing Conditions

There are 10 public schools and numerous private schools in Los Alamitos and Rossmoor.

#### *Public Education Facilities*

Los Alamitos Unified School District (LAUSD) currently serves over 9,700 students in grades K–12 from Los Alamitos and Rossmoor. LAUSD currently operates six elementary schools, two middle schools, one high school, one continuation high school, one adult school, and one child development center. A list of the schools in Los Alamitos and Rossmoor is shown in Figure 5.9-1, *Public Facilities*. Current enrollment of these schools is detailed in Table 5.9-3.

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Table 5.9-3 Current Enrollment of Schools Serving Los Alamitos and SOI

| School & Location                                                                | Current Enrollment |
|----------------------------------------------------------------------------------|--------------------|
| Francis Hopkinson Elementary<br>12582 Kensington Road<br>Los Alamitos, CA        | 694                |
| J.H. McGaugh Elementary<br>1698 Bolsa Avenue<br>Seal Beach, CA                   | 845                |
| Jack L. Weaver Elementary<br>11872 Wembley Road<br>Rossmoor, CA                  | 717                |
| Los Alamitos Elementary<br>10862 Bloomfield Street<br>Los Alamitos, CA           | 726                |
| Richard Henry Lee Elementary<br>11481 Foster Road<br>Rossmoor, CA                | 659                |
| Rossmoor Elementary<br>3272 Shakespeare Drive<br>Rossmoor, CA                    | 712                |
| <b>Total Elementary School Enrollment</b>                                        | <b>4,353</b>       |
| McAuliffe Middle School<br>4112 Cerritos Avenue<br>Cypress, CA                   | 1,263              |
| Oak Middle School<br>10821 Oak Street<br>Los Alamitos, CA                        | 1,072              |
| <b>Total Middle School Enrollment</b>                                            | <b>2,335</b>       |
| Los Alamitos High School<br>3591 Cerritos Avenue<br>Los Alamitos, CA             | 3,211              |
| Laurel High School (continuation)<br>10291 Bloomfield Street<br>Los Alamitos, CA | 16                 |
| <b>Total High School Enrollment</b>                                              | <b>3,227</b>       |
| <b>TOTAL</b>                                                                     | <b>9,915</b>       |

Source: Eclevia 2014.

**Bond Measure “K”**

Bond Measure “K” was passed by voters in LAUSD’s district boundaries in November 2008. The measure approved a general obligation bond to repair and/or renovate schools in the LAUSD service. Funds generated by the bond are used for:

- Repairing deteriorating/aging classrooms, restrooms, plumbing, electrical systems, heating/air conditioning, and other campus facilities;

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- Making safety improvements for fire/health emergencies and security upgrades;
- Renovating classrooms with energy efficient technologies;
- Upgrading and constructing athletic facilities.

A citizens' oversight committee regularly reviews expenditure of the bond's proceeds.

#### 5.9.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

SS-1 Result in a substantial adverse physical impact associated with the provisions 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 school services.

#### 5.9.3.3 ENVIRONMENTAL IMPACTS

Impact 5.9-3: The proposed project would generate approximately 373 new students who would impact the school enrollment capacities of area schools; however, payment of SB 50 development impact fees would provide funding for the financing of new school facilities. [Threshold SS-1]

**Impact Analysis:** Buildout of the General Plan Update, which includes buildout of the SOI, would allow up to 532 additional dwelling units in Los Alamitos and Rossmoor. LAUSD assesses its needs based on a student generation factor of 0.7 student per dwelling unit.<sup>1</sup> Table 5.9-4 calculates the approximate number of students that would be generated by dwelling units in Los Alamitos and Rossmoor at buildout of the General Plan Update.

**Table 5.9-4 Student Generation at Buildout of the General Plan Update**

| Existing Units                       | Projected Units | Increase over Existing | Student Generation Rate (Students/Unit) | Projected Number of Additional Students |
|--------------------------------------|-----------------|------------------------|-----------------------------------------|-----------------------------------------|
| 8,203                                | 8,735           | 532 <sup>1</sup>       | 0.7                                     | 373                                     |
| Existing Number of Students          |                 |                        |                                         | 9,915                                   |
| Total Number of Students at Buildout |                 |                        |                                         | 10,288                                  |

Source: California Department of Education, Office of Public School Construction 2008.

<sup>1</sup> Although the total number of projected students shown in this table is based on an increase in unit count of 532, it should be noted that 184 of the 532 units would be developed as secondary units. These types of units do not generate new students as they are secondary units that are constructed on an existing home site, but are detached from the main house; typical occupants of these units are grandparents or other family members with no children. Therefore, the total number of projected students shown is conservative.

<sup>1</sup> The student generation rate of 0.7 students per unit (K–12) was based on the statewide average Student Yield Factors used by the California Department of Education, Office of Public School Construction (2008).

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As identified in Table 5.9-4, the increase in the number of new residential units (8,735) that would be accommodated under the General Plan Update would result in 373 additional students in the City and Rossmoor. As also shown in Table 5.9-4, future student population in Los Alamitos and Rossmoor at buildout of the General Plan Update would be approximately 10,288 students. As shown in Table 5.9.3, LAUSD's current student enrollment is 9,915 students, of which 4,353 (44 percent) are in elementary, 2,335 (24 percent) are in middle school, and 3,227 (32 percent) are in high school. Applying this same percentage breakdown, it is anticipated that of the 373 additional students that would result from buildout of the General Plan Update, 164 (44 percent) would attend elementary school, 90 (24 percent) would attend middle school, and 119 (32 percent) would attend high school.

New development in the City and SOI in accordance with the General Plan Update would require payments in the form of development impact fees to LAUSD under SB 50 for the construction of new schools. Development impact fees currently charged by LAUSD are (Eclevia 2014):

- Residential: \$1.65/square foot
- Commercial: \$0.27/square foot

Impact fees levied by LAUSD are set within the limits of SB 50. This funding program was established by the legislature to constitute "full and complete mitigation of the impacts" on the provision of adequate school facilities (Government Code § 65995[h]). SB 50 establishes two potential limits for school districts, depending on the availability of new school construction funding from the state and the particular needs of the individual school districts. SB 50 also relieves jurisdictions from having the authority of denying approval of a legislative or adjudicative action under CEQA in reference to real estate development based on the inadequacy of school facilities.

Although project buildout would result in an increase of 373 students, payment of impact fees in compliance with SB 50 would reduce the impacts to an acceptable level. The Los Alamitos General Plan Update is meant to guide future development in the City, but it is not a development project. Land uses in the City overall may generate an additional 373 students, but the number of students that would be generated within the enrollment area of each school cannot be determined specifically at this point. Therefore, it would be speculative to analyze the impacts of future student generation on specific schools and the need for additional school facilities. However, it should be noted that compared to the Current General Plan, the proposed project would result in 667 less residential units, and approximately 467 less students based on the student generation rate above.

### Conclusion

Population growth in Los Alamitos under the Los Alamitos General Plan Update would result in 373 additional students in LAUSD elementary, middle, and high schools, which represents a 3 percent increase over the existing student population in the City and Rossmoor. Should expansion be needed, payment of SB 50 development impact fees would provide funding for new school facilities.

Additionally, per LAUSD, there is a high level (approximately 30 percent) of inter-district transfers within LAUSD elementary schools (Meyer 2011). Specifically, approximately 30 percent of the current elementary

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### PUBLIC SERVICES

school student enrollment (4,353) shown in Table 5.9-3 are inter-district transfer students, which means they are students that are being transferred from areas outside of Los Alamitos (e.g. Seal Beach, Cypress). Therefore, it is anticipated that the additional 373 students that would be generated by the proposed project would be able to be accommodated by LAUSD schools, as students from Los Alamitos would be given preference over students from outside of the City.

Therefore, impacts on school facilities and services resulting from buildout of the General Plan Update are less than significant.

#### 5.9.3.4 APPLICABLE GENERAL PLAN POLICIES

##### Public Facilities and Safety Element

- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.
- **Policy 5.1 Academic excellence** - Advocate for the continued pursuit of academic excellence in the Los Alamitos Unified School District.

#### 5.9.3.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

- California Senate Bill 50 (SB 50), requiring imposition of development impact fees

#### 5.9.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: 5.9-3.

#### 5.9.3.7 MITIGATION MEASURES

No significant adverse impacts were identified and no mitigation measures are necessary.

#### 5.9.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant adverse impacts were identified and no significant unavoidable impacts relating to school services remain.

### 5.9.4 Library Services

#### 5.9.4.1 ENVIRONMENTAL SETTING

##### Regulatory Background

There are no applicable federal, state, or local regulations regarding library services.

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### PUBLIC SERVICES

#### Existing Conditions

Library services in Los Alamitos are provided by Orange County Public Libraries (OCPL), which is operated by the County of Orange. As of 2013, the Los Alamitos-Rossmoor Library has over 65,000 volumes in its collection, occupies a 9,856-square-foot space, and has an annual circulation of 170,840 volumes of its collection (Cowell 2014). The 33-branch OCPL system provides residents of Orange County and the City of Los Alamitos and community of Rossmoor with access to books, periodicals, and other materials. Members of the system have access to the network's entire holdings including, 2.5 million books, 48,500 government publications, 75,000 magazines, 92,700 video/DVD materials, 50,000 cassette/CD books, 13,000 e-books, and 2,246 historical photos. In addition, the Los Alamitos-Rossmoor Branch Library provides residents with weekly and monthly programs including toddler time, pre-school story time, teen events, an adult book group, and cultural programs. The branch library holds special events for families on a regular basis and celebrates seasonal events such as National Children's Book Week and National Library Week. Furthermore, the branch library offers a summer reading program each year that helps children retain their reading skills during the summer months. Public access terminals and wi-fi for laptops and tablets are also available in this library. Volunteering opportunities for adults and teens, along with tutoring through READOC are also offered (Cowell 2014).

The OCPL uses a performance standard of 0.2 square foot per capita for library space, 1.3 volumes per capita for library collections, and a circulation per capita of 4.5 (Cowell 2014). A library's collection consists of the total accumulation of books and other materials owned by a library; its circulation is the activities around lending of library books and other materials. Based on these standards and an existing population of approximately 21,618 (see Table 4-1, *Existing Land Use Summary*), the City and Rossmoor currently require 4,324 square feet of library space and 28,104 volumes in collection, and anticipates an annual circulation of 97,281. Based on the existing capacity and volumes noted above, the Los Alamitos-Rossmoor Library provides more than adequate library materials and space for the local population.

#### 5.9.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- LS-1 Result in a substantial adverse physical impact associated with the provisions 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 library services.

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### PUBLIC SERVICES

#### 5.9.4.3 ENVIRONMENTAL IMPACTS

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**Impact 5.9-4:** The proposed project would generate additional demand for library services as a result of an increase in population in the City and Rossmoor, but would not significantly impact the service needs for the local libraries. [Threshold LS-1]

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**Impact Analysis:** At buildout, Los Alamitos and Rossmoor are projected to have a population of approximately 23,003 residents (see Table 3-3, *Proposed General Plan Land Use and Buildout Projections*), 1,385 residents over existing conditions. Using the OCPL's standard service ratios note above (0.2 square foot per capita for library space, 1.3 volumes per capita for library collections, and a circulation per capita of 4.5), the additional 1,385 residents that would be generated under the General Plan Update would require 277 square feet of library space, 1,800 volumes of collection, and an annual circulation of 6,323 volumes. At buildout of the General Plan Update and based on the existing capacity and number of volumes, the Los Alamitos-Rossmoor Library would have in excess of 5,255 square feet of library space, 35,762 volumes of collection, and 67,327 volumes in circulation. Even with the potential population buildout, the Los Alamitos-Rossmoor Library would exceed OCPL's standard of 0.2 of square feet, 1.3 volumes per capita and 4.5 circulation per capita. Therefore, there would be no need for future library facilities with buildout of the General Plan Update.

Additionally, residents of Los Alamitos and Rossmoor, including future residents generated by land uses allowed under the proposed project, have access to all branches of the Orange County Public Libraries system, including those within the neighboring communities of Seal Beach, Cypress, and Garden Grove. Implementation of policies and implementation actions of the proposed General Plan Update would also ensure that the City and the OCPL provide library services that meet local needs.

Furthermore, current funding of new library facilities in the OCPL system requires the beneficiary municipality—in this case, the City of Los Alamitos and Rossmoor—to fund new or expanded facilities and requires preparation of a library funding/service plan for new library facilities to determine if OCPL has the ability to fund staffing, operation, and maintenance needs of the library facilities (Cowell 2013). Revenue sources that contribute to funding the City's General Fund, including property and sales taxes, would be expected to grow in rough proportion to any increase in residential units and/or businesses in Los Alamitos. These tax revenues could be used to fund future expansion of the Los Alamitos-Rossmoor Library and/or additional materials and resources, should they be needed.

For these reasons, buildout of the General Plan Update would not have a significant impact on library services.

#### 5.9.4.4 APPLICABLE GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS

##### Public Facilities and Safety Element

- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.

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### PUBLIC SERVICES

#### 5.9.4.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

No regulations related to library services apply.

#### 5.9.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: 5.9-4.

#### 5.9.4.7 MITIGATION MEASURES

No significant adverse impacts were identified and no mitigation measures are necessary.

#### 5.9.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant adverse impacts were identified and no significant unavoidable impacts relating to school services remain.

### 5.9.5 References

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## 5. Environmental Analysis

### 5.10 RECREATION

This section of the Draft Environmental Impact Report (DEIR) analyzes the potential for implementation of the City of Los Alamitos General Plan Update to impact public parks and recreational facilities in the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmoor.

#### 5.10.1 Environmental Setting

##### 5.10.1.1 REGULATORY BACKGROUND

###### State Regulations

###### *Quimby Act*

The Quimby Act was established by the California Legislature in 1965 to provide parks for the growing communities in California. The act authorizes cities to adopt ordinances addressing parkland and/or fees for residential subdivisions for the purpose of providing and preserving open space and recreational facilities and improvements, and requires the provision of three acres of park area per 1,000 persons residing within a subdivision, unless the amount of existing neighborhood and community park area exceeds that limit, in which case the city may adopt a higher standard not to exceed five acres per 1,000 residents. The Quimby Act also specifies acceptable uses and expenditures of such funds.

###### *California Public Park Preservation Act*

The primary instrument for protecting and preserving parkland is California's Public Park Preservation Act of 1971. Under the Public Resource Code, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

###### *California Street and Highway Code*

California's Street and Highway Code assists in providing equestrian and hiking trails within state, county, and city rights of way. This would apply to the local roadway system.

###### Local Regulations

###### *Los Alamitos Municipal Code Title 16 (Subdivisions)*

Los Alamitos Municipal Code Chapter 16.17 (Dedication of Land for Park Facilities and Payment of In Lieu Fees) provides the mechanism in accordance with California Government Code Section 66477 for the payment of fees or dedication of land, or combination thereof, for developing or rehabilitating existing neighborhood or community parks or recreational facilities to serve the subdivision. The fees collected under this ordinance are solely for the purpose of producing revenue for the acquisition, development, and maintenance of public parks. Under this Chapter, the parkland standard is 2.5 acres per 1,000 people.

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At the time of filing a tentative map application for all subdivisions with residential land uses, project applicants may indicate whether they desire to dedicate property for park and recreational purposes onsite or whether they desire to pay a fee in lieu thereof. If they desire to dedicate land, they must designate the area on a tentative map. Prior to approval of the tentative map, the subdivision committee and Planning Commission reviews and recommends to City staff whether to require a dedication of land within the subdivision, payment of an in-lieu fee, or a combination of both.

#### 5.10.1.2 EXISTING CONDITIONS

Los Alamitos and Rossmoor are active communities with families, individuals, and schools, and that emphasize the value of parks, recreation, and open-space amenities. The City of Los Alamitos provides parks, school fields, and recreation facilities and programming that directly serve the residents of Los Alamitos, Rossmoor, Seal Beach, and Long Beach. Parks and school fields in Rossmoor are direct resources for Rossmoor residents and offer additional open-space resources for Los Alamitos residents.

Table 5.10-1, *Existing Parks and Recreational Facilities*, describes existing park and recreational amenities in the City of Los Alamitos and Rossmoor, which are shown on Figure 5.10-1, *Parks and Recreational Facilities*. As identified in Table 5.10-1, the City of Los Alamitos and Rossmoor have 36.48 acres of recreational facilities available to residents and employees in the City and SOI.

**Table 5.10-1 Existing Parks and Recreational Facilities**

| Parkland/Recreational Facilities    | Type              | Acres | Description                                                                                                                                                                                                                                                              |
|-------------------------------------|-------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Public Parks</b>                 |                   |       |                                                                                                                                                                                                                                                                          |
| <b>Los Alamitos</b>                 |                   |       |                                                                                                                                                                                                                                                                          |
| Coyote Creek Park                   | Neighborhood Park | 3.69  | <ul style="list-style-type: none"> <li>Trail and grass area.</li> </ul>                                                                                                                                                                                                  |
| Labourdette Park                    | Pocket Park       | 0.44  | <ul style="list-style-type: none"> <li>Play area</li> <li>Barbecue, picnic shelter</li> </ul>                                                                                                                                                                            |
| Laurel Park <sup>1</sup>            | Neighborhood Park | 4.33  | <ul style="list-style-type: none"> <li>Lighted multipurpose field, lighted softball field, lighted tennis courts</li> <li>Picnic tables, drinking fountain, restrooms</li> </ul>                                                                                         |
| Little Cottonwood Park <sup>2</sup> | Neighborhood Park | 6.75  | <ul style="list-style-type: none"> <li>Multipurpose field space</li> <li>Basketball court, sand volleyball court, softball field</li> <li>Play area</li> <li>Cement jogging sidewalk</li> <li>Barbecues, picnic tables/shelters, drinking fountain, restrooms</li> </ul> |
| Orville Lewis, Jr. Park             | Neighborhood Park | 1.65  | <ul style="list-style-type: none"> <li>Grass area, baseball backstop, basketball court</li> <li>Play area</li> <li>Barbecue, picnic shelter and tables, drinking fountain</li> </ul>                                                                                     |
| Roberts Park                        | Pocket Park       | 0.09  | <ul style="list-style-type: none"> <li>Play area</li> </ul>                                                                                                                                                                                                              |
| Soroptimist Park                    | Pocket Park       | 0.17  | <ul style="list-style-type: none"> <li>Play area</li> </ul>                                                                                                                                                                                                              |
| Stansbury Park                      | Pocket Park       | 0.62  | <ul style="list-style-type: none"> <li>Grass area and play area</li> </ul>                                                                                                                                                                                               |

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**Table 5.10-1 Existing Parks and Recreational Facilities**

| Parkland/Recreational Facilities                | Type                 | Acres              | Description                                                                                                                                                                                                                                                  |
|-------------------------------------------------|----------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sterns Park                                     | Pocket Park          | 0.29               | <ul style="list-style-type: none"> <li>• Play area and barbecue</li> </ul>                                                                                                                                                                                   |
| <b>Subtotal City of Los Alamitos</b>            |                      | <b>18.03 Acres</b> |                                                                                                                                                                                                                                                              |
| <b>Rossmoor</b>                                 |                      |                    |                                                                                                                                                                                                                                                              |
| Rossmoor Park                                   | Neighborhood Park    | 9.43               | <ul style="list-style-type: none"> <li>• Basketball, tennis, and volleyball courts; softball and soccer fields, play area</li> <li>• Barbecues, picnic table, 750+ sf community room and kitchen</li> </ul>                                                  |
| Rush Park                                       | Neighborhood Park    | 8.61               | <ul style="list-style-type: none"> <li>• Grass area, ball fields, play area, fitness trail</li> <li>• Picnic tables, 6,300 sf community room/kitchen</li> </ul>                                                                                              |
| Foster Mini Park                                | Pocket Park          | 0.17               | <ul style="list-style-type: none"> <li>• Grass area, play area, benches</li> </ul>                                                                                                                                                                           |
| Kempton Mini Park                               | Pocket Park          | 0.24               | <ul style="list-style-type: none"> <li>• Grass area, play area, benches</li> </ul>                                                                                                                                                                           |
| <b>Subtotal Rossmoor</b>                        |                      | <b>18.45 Acres</b> |                                                                                                                                                                                                                                                              |
| <b>Total Park Acreage</b>                       |                      | <b>36.48 Acres</b> |                                                                                                                                                                                                                                                              |
| <b>Other Recreational Spaces and Facilities</b> |                      |                    |                                                                                                                                                                                                                                                              |
| <b>Los Alamitos</b>                             |                      |                    |                                                                                                                                                                                                                                                              |
| Aquatic Center                                  | Special Use Facility | 2.46               | <ul style="list-style-type: none"> <li>• Subject to long-term facilities-use agreement between the City and the JFTB<sup>3</sup></li> <li>• Olympic-sized pool and facility</li> </ul>                                                                       |
| Los Alamitos Community Center and Youth Center  | Special Use Facility | 1.69               | <ul style="list-style-type: none"> <li>• 11,000+ sf of meeting and activity rooms, as well as kitchen facilities</li> <li>• Gymnasium</li> </ul>                                                                                                             |
| McAuliffe Middle School                         | School Field         | 10.88              | <ul style="list-style-type: none"> <li>• Subject to long-term facilities/joint-use agreement between the City and LAUSD<sup>3</sup></li> <li>• Grass area, lighted playing fields, track</li> </ul>                                                          |
| Oak Middle School                               | School Field         | 11.90              | <ul style="list-style-type: none"> <li>• Subject to long-term facilities/joint-use agreement between the City and LAUSD<sup>3</sup></li> <li>• Grass area, lighted playing fields, lighted outdoor basketball courts, gymnasium, track, restrooms</li> </ul> |
| Arbor Dog Park <sup>4</sup>                     | Neighborhood Park    | 2.74               | <ul style="list-style-type: none"> <li>• Located on the JFTB; leased/operated by Seal Beach</li> </ul>                                                                                                                                                       |
| Arbor Park Fields <sup>4</sup>                  | Neighborhood Park    | 8.92               | <ul style="list-style-type: none"> <li>• Located on the JFTB; leased/operated by Seal Beach with preference for AYSO</li> </ul>                                                                                                                              |
| Los Alamitos Youth Baseball Fields <sup>4</sup> | Special Use Facility | 9.57               | <ul style="list-style-type: none"> <li>• Located on the JFTB; leased and operated by Los Alamitos Youth Baseball</li> </ul>                                                                                                                                  |
| Navy Golf Course <sup>4</sup>                   | Special Use Facility | 221.60             | <ul style="list-style-type: none"> <li>• Located on the JFTB; open to general public for a fee; 27-hole golf course, driving range, and pitch/putt</li> </ul>                                                                                                |
| Laurel High School (Continuation) <sup>4</sup>  | School Field         | 3.93               | <ul style="list-style-type: none"> <li>• Available for rental, but not part of a facilities/joint-use agreement with the City</li> </ul>                                                                                                                     |
| Los Alamitos High School <sup>4</sup>           | School Field         | 21.01              | <ul style="list-style-type: none"> <li>• Available for rental, but not part of a facilities/joint-use agreement with the City</li> </ul>                                                                                                                     |
| Los Alamitos Elementary School <sup>4</sup>     | School Field         | 1.78               | <ul style="list-style-type: none"> <li>• Available for rental, but not part of a facilities/joint-use agreement with the City</li> </ul>                                                                                                                     |
| St. Hedwig School (Private)                     | School Field         | 2.98               | <ul style="list-style-type: none"> <li>• Private use only</li> </ul>                                                                                                                                                                                         |

## 5. Environmental Analysis

### RECREATION

**Table 5.10-1 Existing Parks and Recreational Facilities**

| Parkland/Recreational Facilities                      | Type                 | Acres               | Description                                                                                                                                 |
|-------------------------------------------------------|----------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Subtotal City of Los Alamitos</b>                  |                      | <b>299.46 Acres</b> |                                                                                                                                             |
| <b>Rossmoor</b>                                       |                      |                     |                                                                                                                                             |
| Montecito Center                                      | Special Use Facility | 0.54                | <ul style="list-style-type: none"> <li>1,500 sf community room, courtyard, and patio</li> </ul>                                             |
| Hopkinson Elementary School                           | School Field         | 4.89                | <ul style="list-style-type: none"> <li>Grass area and fields open to the public outside of school hours and available for rental</li> </ul> |
| Lee Elementary School                                 | School Field         | 3.64                | <ul style="list-style-type: none"> <li>Grass area and fields open to the public outside of school hours and available for rental</li> </ul> |
| Rossmoor Elementary School                            | School Field         | 4.44                | <ul style="list-style-type: none"> <li>Grass area and fields open to the public outside of school hours and available for rental</li> </ul> |
| Weaver Elementary School                              | School Field         | 3.09                | <ul style="list-style-type: none"> <li>Grass area and fields open to the public outside of school hours and available for rental</li> </ul> |
| <b>Subtotal Rossmoor</b>                              |                      | <b>16.60 Acres</b>  |                                                                                                                                             |
| <b>Total Other Recreational Spaces and Facilities</b> |                      | <b>352.54 Acres</b> |                                                                                                                                             |
| <b>Subtotal City of Los Alamitos</b>                  |                      | <b>317.49 Acres</b> |                                                                                                                                             |
| <b>Subtotal Rossmoor</b>                              |                      | <b>35.05 Acres</b>  |                                                                                                                                             |
| <b>TOTAL</b>                                          |                      | <b>389.02 Acres</b> |                                                                                                                                             |

Source: City of Los Alamitos and Rossmoor Community Service District 2014.

Notes:

Los Alamitos JFTB: Joint Forces Training Base; AYSO: American Youth Soccer Organization; LAUSD: Los Alamitos Unified School District

<sup>1</sup> Laurel Park was purchased by the City from the Los Alamitos Unified School District in 2005.

<sup>2</sup> The title to Little Cottonwood Park was transferred to the City by the United States Department of the Interior through a Quit Claim Deed in 1989. If the property is needed for national defense, title would revert back to the federal government.

<sup>3</sup> School facilities with joint-use agreements can be rented by the hour. Joint-use agreements with LAUSD are currently in negotiations, and new individual joint-use agreements are anticipated to be in place by the end of 2014. These agreements would cover the McAuliffe Middle School field and the Oak Middle School field gymnasium, restrooms, and bike path.

<sup>4</sup> For calculating park acreage, the City considers 5 percent of all other spaces and fields general available to the public, but outside of the City's direct control or agreement. This equates to 13.48 acres for these facilities.

### Public Parks

Los Alamitos' neighborhood parks serve several residential neighborhoods and have a wide range of indoor and outdoor recreation opportunities. Neighborhood parks are social and recreational focal points, and generally range in size. Some neighborhood parks feature greenscape, recreational facilities, sports fields, and playgrounds. Pocket parks are a subset of neighborhood parks, and are generally built on a single lot. These parks most often provide passive open space with emphasis on aesthetics rather than formal recreational facilities. The City of Los Alamitos has nine public parks, as identified in Table 5.10-1, encompassing 18.03 acres. Rossmoor features four public parks encompassing 18.45 acres.

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### Figure 5.10-1 Parks and Recreational Facilities

#### Pocket Park

- 1. Stansbury Park (0.62 ac)
- 2. Roberts Park (0.09 ac)
- 3. Sorptomist Park (0.17 ac)
- 4. Labourdette Park (0.44 ac)
- 5. Sterns Park (0.29 ac)
- 6. Kempton Mini-Park (0.24 ac)
- 7. Foster Mini-Park (0.17 ac)

#### Neighborhood Park

- 8. Coyote Creek Park (3.69 ac)
- 9. Laurel Park (4.33 ac)
- 10. Little Cottonwood Park (6.75 ac)
- 11. Orville Lewis Park (1.65 ac)
- 12. Arbor Park (8.92 ac)
- 13. Arbor Dog Park (2.74 ac)
- 14. Rossmoor Park (9.43 ac)
- 15. Rush Park (8.61 ac)

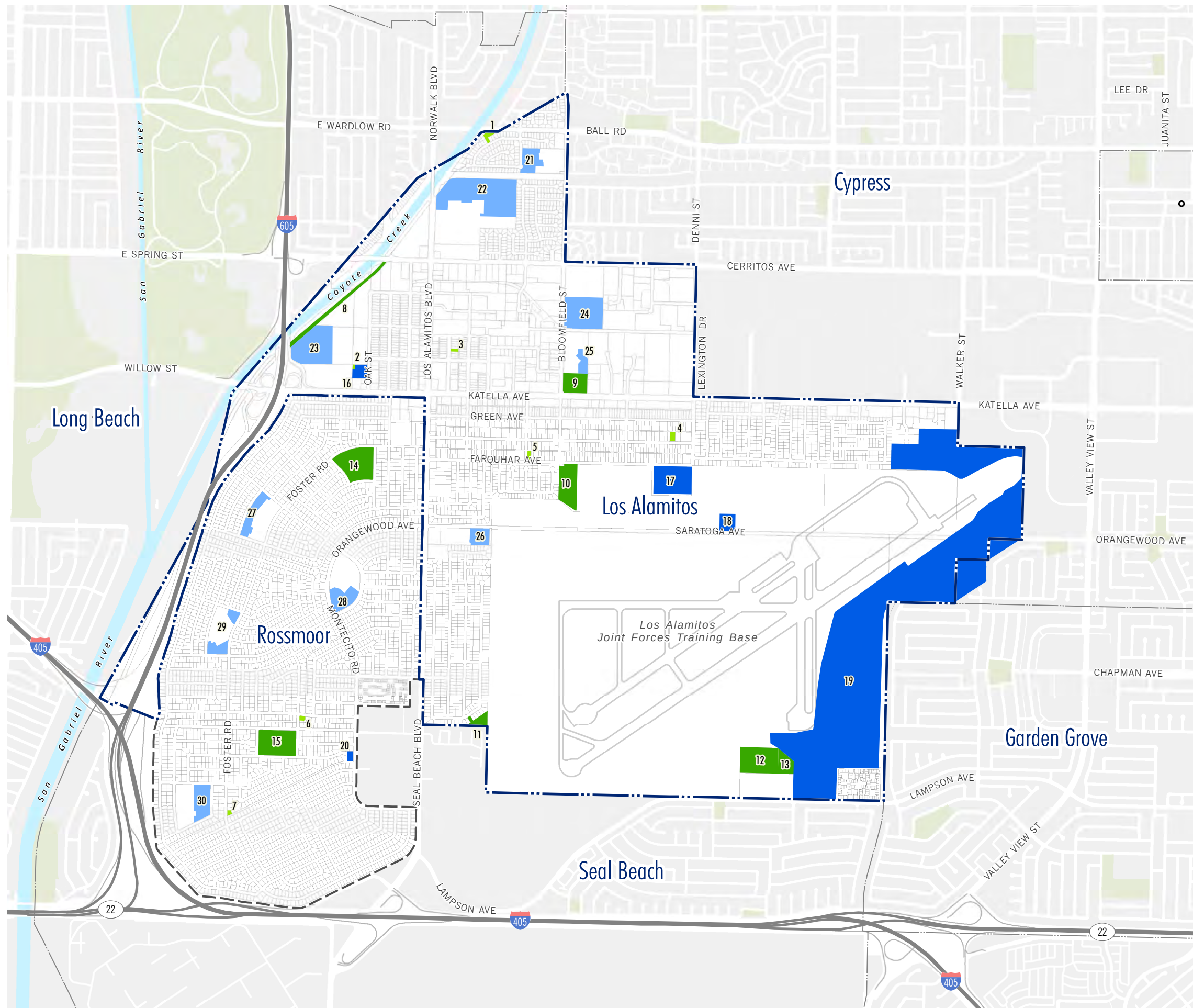
#### Special Use Facility

- 16. Los Alamitos Community Center (1.69 ac)
- 17. Los Alamitos Youth Baseball Fields (9.57 ac)
- 18. Aquatic Center, (2.46 ac)
- 19. Navy Golf Course (221.60 ac)
- 20. Montecito Center (0.54 ac)

#### School Fields

- 21. School District Headquarters, (3.93 ac)
- 22. Los Alamitos High School, (21.01 ac)
- 23. Oak Middle School, (11.90 ac)
- 24. McAuliffe Middle School, (10.88ac)
- 25. Los Alamitos Elementary School, (1.78 ac)
- 26. St. Hedwig School (Private), (2.98 ac)
- 27. Lee Elementary School, (3.64 ac)
- 28. Rossmoor Elementary School, (4.44 ac)
- 29. Weaver Elementary School, (1.03 ac)
- 29. Weaver Elementary School, (2.06 ac)
- 30. Hopkinson Elementary School, (4.89 ac)

-  City Boundary
-  Sphere of Influence



## 5. Environmental Analysis

### RECREATION

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## 5. Environmental Analysis

### RECREATION

#### Recreational and School Facilities

Los Alamitos' and Rossmoor's parks contain a variety of community recreational facilities with areas available for organized sports (baseball/softball diamonds), basketball courts, soccer fields, tetherball courts, and tennis courts. Both communities also offer places for informal recreational activities, including barbecues, walking and biking paths, picnic areas, and playgrounds.

#### *School Facilities*

Another source of recreational open space within the City of Los Alamitos is the playgrounds and athletic fields at public schools. Schools are accessible to residential neighborhoods and are generally improved with recreational facilities for school-aged children. Schools provide play fields and playground equipment that neighborhood residents may use during off-school hours. School facilities with joint-use agreements can be rented by the hour.

The City also participates in the sharing of recreational areas through a joint-use agreement between the City of Los Alamitos and the Los Alamitos Unified School District (LAUSD).<sup>1</sup> These agreements are secured for public use for the specified time periods:

- USA Water Polo National Training Center: November 19, 1998, to February 29, 2016
- LAUSD: Master Agreement: September 7, 2010, to September 6, 2015 (5-year renewal possible)
- Oak Middle School field: September 14, 1978, to September 13, 2003
- Oak Middle School gymnasium: February 28, 1974, in perpetuity
- McAuliffe Middle School field: April 23, 2001, to June 30, 2011

#### Parkland Standard

Overall, there are 317.49 acres of park and recreation facilities in Los Alamitos and 35.05 acres of park and recreational facilities in Rossmoor, for a total of 389.02 acres of park and recreational facilities in the City and SOI. Of this, 18.03 acres of parkland and 26.93 acres of recreational space in special use and school facilities that are owned, operated or under contract by the City for public use. An addition, 269.55 acres of recreational space (48.0 acres outside the golf course) is on land outside the City control or contract, but is available for public use.<sup>2</sup>

There is no state or federal statute detailing how to calculate the City's level of park service. Additionally, there is no federal minimum level of park or recreation space. Typically, each jurisdiction determines the appropriate park standard based on the guidance provided by Section 666477 of the California Government Code, commonly referred to as the Quimby Act.

The City calculates the acreage of park and recreation facilities that serve the public as follows:

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<sup>1</sup> The agreement with LAUSD is currently in negotiations, and new individual joint-use agreements are anticipated be in place by the end of 2014. These agreements would cover the McAuliffe Middle School field and the Oak Middle School field, gymnasium, restrooms, and bike path.

<sup>2</sup> An additional 2.98 acres of recreational space is also provided through a private school (St. Hedwig) typically reserved for its students and families; however this is not included as part of the City's park and recreational facilities that serve the public.



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- 18.03 acres of public parks in Los Alamitos
- 26.93 acres of spaces and facilities owned or under contract by the City for public use in Los Alamitos
- 13.48 acres or 5 percent of all other spaces and fields general available to the public, but outside of the City's direct control or agreement in Los Alamitos<sup>3</sup>
- Total existing park and recreational facilities is 58.44 acres in the City of Los Alamitos

As stated in the current General Plan, the City of Los Alamitos' minimum standard goal for providing local recreational facilities has been 2.5 acres per 1,000 people (City of Los Alamitos 1990). The demand for parkland based on the City's current standard is 28.46 acres of parkland for the City's 2013 population of 11,384. Under the current standard, the City exceeds parkland needs by 29.98 acres. Using the conservative figure of 58.44 acres total, the City currently provides 5.1 acres of neighborhood and community park and recreation space for every 1,000 residents.

Rossmoor is currently within the unincorporated County of Orange. The County of Orange General Plan Recreation Element identifies a standard of 2.5 acres per 1,000 people (Orange 2011), which is the same as the City's current standard. If Rossmoor is annexed into the City then the City's parkland standard apply. Including Rossmoor, the acreage of park and recreation facilities that serve the public as follows:

- 36.48 acres of public parks in Los Alamitos and Rossmoor
- 43.53 acres of spaces and facilities owned or under contract by the City for public use in Los Alamitos and Rossmoor
- 13.48 acres or 5 percent of all other spaces and fields general available to the public, but outside of the City's direct control or agreement in Los Alamitos
- Total existing park and recreational facilities is 93.49 acres in the City of Los Alamitos and Rossmoor

Parkland demand in Rossmoor is 25.59 acres of additional parkland for the 2013 population of 10,234, for a total demand of 54.05 acres of parkland in the City and SOI. Under the current standard, the City and its SOI exceeds parkland needs by 39.44 acres. Using the conservative figure of 93.49 acres in the City and SOI total, the City would provide 4.3 acres of neighborhood and community park and recreation space for every 1,000 residents in the City and SOI.

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<sup>3</sup> This excludes the three acres on St. Hedwig's property and includes only 5 percent of the land outside of the City's direct control or agreement. While the City can assume that well over 500 residents use these facilities at various times of the year (roughly five percent of the City's 2013 estimated population), there are no specific data sources to confirm a precise number. However, given the level of participation of residents' children in local sports and recreation activities (school-sponsored and club), the number of residents could easily equal 10 percent or more. Consequently, 5 percent is considered a conservative estimate.

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#### Recreation Programs

The City's Recreation and Community Services Department offers a variety of recreation programs, activities, and classes to local residents, listed below. The *Los Alamitos Recreation & Community Services Activities Guide* is a quarterly publication of the City and the Los Alamitos Area Chamber of Commerce that contains the schedule of all classes, tours, trips, and activities offered through the Recreation and Community Services Department, as well as news about Los Alamitos events, activities, and businesses. These programs, events, and classes are offered in Los Alamitos:

- **Youth and Adult Classes.** These classes include a variety of dance, physical fitness, and personal enrichment activities, are self-supported through user fees, and are offered to meet the needs and interests of Los Alamitos residents.
- **Senior Excursions.** These include day and overnight trips. The Recreation Division also partners with travel providers to offer extended trips.
- **Low-Cost Summer Day Camp.** Camp is offered for ten weeks each summer and provides the opportunity for full-week or single-day enrollment.
- **Summer Aquatic Program.** Swim lessons for youth are offered from beginning to advanced levels at the Los Alamitos Community Center pool.
- **Youth Sports Leagues and Excursions.** Youth sports leagues include summer youth basketball and baseball; youth excursions to local attractions and beaches are offered in the summer.
- **Park and Field Use.** Use of City parks and school athletic fields by individuals and by local nonprofit organizations are coordinated by the Community Services Department.
- **Facility Rentals.** Facility rentals for banquets and meetings are available at four separate facilities.

#### Facility Improvements and Funding

##### *Current Improvements*

The City of Los Alamitos is constructing a low-impact recreation parkway area in the Southern California Edison right of way along Coyote Creek, which is behind Oak Middle School and the mobile home park. This parkway is funded through a grant from the Rivers and Mountains Conservancy in the amount of \$1,440,000. The project was completed in 2014 (see Coyote Creek Park in Table 5.10-1).

##### *Park Financing and Fees*

The City's park operations are financed primarily through property tax revenues. Park improvements are funded with City general-fund monies and grants through the City's Capital Improvement Program.

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Another source of funding is Chapter 16.17 of the Los Alamitos Municipal Code (Dedication of Land for Park Facilities and Payment of In Lieu Fees), which provides the mechanism for the payment of fees or dedication of land, or combination thereof, for developing or rehabilitating existing neighborhood or community park or recreational facilities in connection with a residential subdivision. The fees collected are solely for the purpose of producing revenue for the acquisition, development, and maintenance of public parks to serve the subdivision; there are exceptions which allow the use in other areas when certain conditions are met..

### 5.10.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- R-1            Would 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.
- R-2            Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### 5.10.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.10-1:** The proposed project would generate demand for 61.86 acres of parkland under the City's current parkland standard; but future demand for parks would be met by existing park facilities under the City's parkland standard. [Threshold R-1 and R-2]

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**Impact Analysis:** As discussed above, the City and Rossmoor provide 317.49 acres of park and recreation facilities in Los Alamitos and 35.05 acres of park and recreational facilities in Rossmoor, for a total of 389.02 acres of park and recreational facilities in the City and SOI. Of this, 18.03 acres of parkland and 26.93 acres of recreational space in special use and school facilities that are owned, operated or under contract by the City for public use. An addition, 269.55 acres of recreational space (48.0 acres outside the golf course) is on land outside the City control or contract, but is available for public use.<sup>4</sup>

There is no state or federal statute on how to calculate the City's level of park service, and there is no state or federal minimum level of park or recreation space. Typically, each jurisdiction determines the appropriate park standard based on the guidance provided by Section 666477 of the California Government Code, commonly referred to as the Quimby Act. The current standard for providing local recreational facilities is 2.5 acres per 1,000 people (Los Alamitos Municipal Code Chapter 16.17). Table 5.10-2, *Park and Recreation Facility Demand Based on the Los Alamitos Park Standard*, identifies the existing and proposed demand for park

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<sup>4</sup> An additional 2.98 acres of recreational space is also provided through a private school (St. Hedwig) typically reserved for its students and families; however this is not included as part of the City's park and recreational facilities that serve the public.

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and recreational facilities in the City and Rossmoor compared to the current availability of park and recreational facilities.

**Table 5.10-2 Park and Recreation Facility Demand Based on the Los Alamitos Park Standard**

| Type                                           | Proposed Standard | Location        | Population | Park Demand Acres By Location | Available Acres <sup>1</sup> | Need Met (Acres) |
|------------------------------------------------|-------------------|-----------------|------------|-------------------------------|------------------------------|------------------|
| Existing Park and Recreational Facility Demand | 2.5 Acres         | City            | 11,384     | 28.46                         | 58.44                        | 29.98            |
|                                                |                   | Rossmoor        | 10,234     | 25.59                         | 35.05                        | 9.47             |
|                                                |                   | City + Rossmoor | 21,618     | 54.05                         | 93.49                        | 39.45            |
| Parkland Demand at Buildout                    | 2.5 Acres         | City            | 14,204     | 35.51                         | 58.44                        | 22.93            |
|                                                |                   | Rossmoor        | 10,540     | 26.35                         | 35.05                        | 8.70             |
|                                                |                   | City + Rossmoor | 24,744     | 61.86                         | 93.49                        | 31.63            |
| Total Increase in Demand                       | NA                | City            | 2,820      | 7.05                          | NA                           | NA               |
|                                                |                   | Rossmoor        | 306        | 0.77                          | NA                           | NA               |
|                                                |                   | City + Rossmoor | 3,126      | 7.82                          | NA                           | NA               |

Notes: The existing parkland standard does not currently apply to Rossmoor and would only apply if annexed into the City under the current General Plan.

<sup>1</sup> This excludes the three acres on St. Hedwig's property and includes only 5 percent of the land outside of the City's direct control or agreement. While the City can assume that well over 500 residents use these facilities at various times of the year (roughly five percent of the City's 2013 estimated population), there are no specific data sources to confirm a precise number. However, given the level of participation of residents' children in local sports and recreation activities (school-sponsored and club), the number of residents could easily equal 10 percent or more. Consequently, 5 percent is considered a conservative estimate.

At General Plan Buildout the demand in the City of Los Alamitos would be 54.05 acres of parkland and recreation facilities for Los Alamitos residents. If Rossmoor were to be annexed to the City of Los Alamitos, the resulting demand for park and recreational facilities would be 61.86 acres. Based on the City's existing park standard, the proposed project would generate demand for 7.05 additional parkland acres in the City and 0.77 additional parkland acres in Rossmoor, for a total increase in park demand of 7.82 acres. As identified in Table 5.10-2, the City and Rossmoor have a total of 93.49 acres of parks and recreational facilities available and total demand under the City's current standard is 61.86 acres.

As identified in Table 5.10-2, under the park standard, the park needs of the additional growth identified by the General Plan Update would be accommodated by the existing parkland in the City and Rossmoor. Furthermore, new development would be required to provide park facilities onsite or pay in-lieu fees to fund new park space and recreational facilities in the City in accordance with the City's Municipal Code Chapter, 16.17 if it is tied to a subdivision. The availability of these new facilities would prevent accelerated physical deterioration of existing facilities. There are also a number of other recreational amenities to serve proposed residents. Consequently, no significant impact would occur.

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**Impact 5.10-2:** Buildout of the General Plan Update would require the construction or expansion of recreational facilities but no significant adverse physical effect on the environment would occur. [Threshold R-2]

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**Impact Analysis:** The General Plan Update guides growth and development within the City and is not a development project. New and/or expanded facilities may be constructed to satisfy the park dedication requirement per Municipal Code Chapter 16.17. Development and operation of new recreational facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Development of new recreational facilities and associated impacts are addressed throughout the EIR as part of the buildout analysis. Environmental impacts associated with construction and/or expansion of recreational facilities in accordance with the proposed Land Use Plan are addressed separately (see the topical sections for air quality, greenhouse gas emissions, and noise in Chapter 5, *Environmental Impacts*). Existing parkland, the generation of parkland in-lieu fees from residential development resulting from subdivisions, and General Plan policies aimed at fulfilling local needs for recreational opportunities would together ensure that future residents of Los Alamitos would have adequate access to parks and recreational facilities under the proposed project. Goals, policies, and actions in the General Plan, along with existing federal, state, and local regulations, would mitigate potential adverse impacts to the environment that may result from the construction and/or expansion of parks, recreational facilities, and trails pursuant to buildout of the proposed Land Use Plan. Consequently, the General Plan Update would not result in significant impacts relating to new or expanded recreational facilities. Furthermore, buildout of the General Plan Update would not cause substantial physical deterioration of existing facilities. Impacts would be less than significant.

#### 5.10.4 Applicable General Plan Policies

##### Open Space and Conservation Element

- **Policy 1.1 Park and recreation space** – Establish a goal of providing 5 acres of park and recreation space for every 1,000 residents in Los Alamitos.
- **Policy 1.2 Diverse needs and interests** - Design and program parks and recreational facilities for people of all ages and abilities. Promote park uses such as community gardens, farmers' markets, dog parks, and skate/bike parks.
- **Policy 1.3 Underserved neighborhoods** - Prioritize the development of new parks and recreational facilities in neighborhoods not already within walking distance (1/4-mile) of an existing facility.
- **Policy 1.4 Joint-use facilities** - Encourage the joint use of facilities owned by public agencies and religious institutions for public parks and recreation.
- **Policy 1.5 Underutilized or surplus land** - Utilize publicly-owned surplus land, easements, and rights-of-way for open space and recreational facilities.

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- **Policy 1.6 School closure** - If a school site is ever closed and made available for lease or purchase, the City shall require future use or development of the site to include public recreational space equal to the recreational land area previously provided while a functional school.
- **Policy 1.7 City-owned facilities** - When evaluating the future use of city-owned facilities consider the needs of the city first and then consider use by non-municipal entities.
- **Policy 2.1 Multipurpose open space** - Maximize the use of public utility easements, flood control channels, school grounds, and other quasi-public areas for recreational uses and playfields.
- **Policy 2.2 Connectivity and image** - Improve existing and establish new trails along flood control facilities to link neighborhoods and public uses, augment local and regional bicycle systems, enhance the City's image, and attract recreational cyclists and other visitors to the town center.
- **Policy 2.3 Large development** - Encourage development with large buildings and/or parking structures to incorporate open space and onsite recreational amenities on rooftop areas.

#### 5.10.5 Existing Regulations and Standard Conditions

##### State

- Quimby Act of 1975 (California Government Code Section 66477)

##### City of Los Alamitos

- Los Alamitos Municipal Code Chapter 16.17

#### 5.10.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.10-1 and 5.10-2.

#### 5.10.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

#### 5.10.8 Level of Significance After Mitigation

No significant adverse impacts relating to recreation were identified.

#### 5.10.9 References

Los Alamitos, City of. 1990, May. City of Los Alamitos 2010 General Plan.

## 5. Environmental Analysis

### RECREATION

Orange, County of. 2011, March 22. County of Orange General Plan 2005, Chapter VII, Recreation,  
<http://ocplanning.net/planning/generalplan2005>

## 5. Environmental Analysis

### 5.11 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the City of Los Alamitos General Plan Update to result in transportation and traffic impacts in the City of Los Alamitos and Rossmoor, which is the City's sphere of influence (SOI). This section presents the existing transportation conditions in the City and Rossmoor, including the roadway network, bicycle and pedestrian network, transit network, aviation facilities, and current intersection and roadway segment operations. This section also discusses the methodology used to evaluate impacts. The analysis is based in part on the following technical report:

- *City of Los Alamitos Transportation Study: Recommendations and Impact Assessment*, Fehr and Peers, May 15, 2014

A complete copy of this study is in Appendix G of this Draft EIR

#### 5.11.1 Environmental Setting

##### 5.11.1.1 REGULATORY SETTING

###### Vehicular Conditions

The traffic study analyzed the operation of the roadway system, including roadway segments and intersections. Operations for these facilities are expressed in terms of level of service (LOS), which is a general measure of traffic operating conditions where a letter grade, from LOS A (no congestion) to F (high levels of congestion), is assigned. LOS E represents "at capacity" operations. LOS qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions.

The flow of vehicles without significant impediments is considered "stable," but when traffic encounters interference that limits the capacity acutely, the flow becomes "unstable." These grades represent the perspective of drivers only and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

###### *Intersection Levels of Service*

Table 5.11-1, *Intersection Level of Service Criteria for Signalized Intersections*, summarizes how the LOS corresponds to intersection delay at the signalized study intersections. According to the City's General Plan criteria, LOS "D" is the maximum acceptable level of congestion on City's intersections during the peak periods. This same LOS is retained in the General Plan Update.



## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

**Table 5.11-1 Intersection Level of Service Criteria for Signalized Intersections**

| LOS | Interpretation                                                                                                                                                                          | Volume to Capacity Ratio |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| A   | Operations with very low delay occurring with favorable progression and/or short cycle length.                                                                                          | 0.000–0.600              |
| B   | Operations with low delay occurring with good progression and/or short cycle lengths.                                                                                                   | 0.601–0.700              |
| C   | Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.                                                  | 0.701–0.800              |
| D   | Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | 0.801–0.900              |
| E   | Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.                             | 0.901–1.000              |
| F   | Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.                                                      | Greater than 1.000       |

Source: Intersection Capacity Utilization methodology; Fehr & Peers 2014.

### Roadway Levels of Service

Daily capacity thresholds in accordance with the City of Los Alamitos' 2010 General Plan Circulation Element are shown in Table 5.11-2, *Maximum Daily Roadway Capacities*. This table establishes the maximum daily roadway capacities by street classifications. According to the City's current General Plan, LOS "D" is the maximum acceptable level of congestion on City roadways during the peak periods.

**Table 5.11-2 Maximum Daily Roadway Capacities**

| Classification | Typical Lane Configuration | Daily Volume Thresholds |        |        |        |        |
|----------------|----------------------------|-------------------------|--------|--------|--------|--------|
|                |                            | LOS A                   | LOS B  | LOS C  | LOS D  | LOS E  |
| Smart Street   | 6 Lanes Divided            | —                       | —      | —      | —      | 60,000 |
|                | 8 Lanes Divided            | —                       | —      | —      | —      | 72,000 |
| Major          | 6 Lanes Divided            | 36,000                  | 40,400 | 45,000 | 49,500 | 54,000 |
| Primary        | 4 Lanes Divided            | 24,000                  | 27,000 | 30,000 | 33,000 | 36,000 |
| Secondary      | 4 Lanes Undivided          | 16,000                  | 18,000 | 20,000 | 22,000 | 24,000 |
| Commuter       | 2 Lanes Undivided          | 5,000                   | 7,500  | 10,000 | 12,500 | 15,000 |

Source: Los Alamitos 2010 General Plan Circulation Element.

### Applicable Plans and Regulations

The regulatory framework is used to inform decision makers about the regulatory agencies/policies that affect transportation in the City of Los Alamitos and its SOI. This enables them to make informed decisions about planning improvements to transportation systems in the City. Major policy documents impacting the transportation system in Los Alamitos include laws at the state level and planning documents at a regional level.

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### TRANSPORTATION AND TRAFFIC

#### *Federal Regulations*

##### *Surface Transportation Assistance Act*

In 1982, the federal government passed the Surface Transportation Assistance Act (STAA). This act requires states to allow larger trucks on the “National Network,” which consist of the interstate system plus the noninterstate federal-aid primary system. Larger trucks include (1) doubles with 28.5-foot trailers, (2) singles with 48-foot semitrailers and unlimited kingpin-to-rear axle distance, (3) unlimited length for both vehicle combinations, and (4) widths up to 102 inches. Interstate 605 (I-605) in the City is an STAA route.

#### *State*

##### *AB 1358, California Complete Streets Act*

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, Assembly Bill 1358 required circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must “meet the needs of all users...in a manner suitable to the rural, suburban, or urban context of the general plan.” Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasked the Governor’s Office of Planning and Research to release guidelines for compliance with this legislation by January 1, 2014.

##### *SB 743*

Senate Bill 743 (SB 743), passed September 27, 2013, makes a set of amendments to CEQA. This bill gives individual agencies the ability to opt out of a congestion management program. It requires the Governor’s Office of Planning and Research (OPR) to develop alternative impact criteria for transportation impacts in transit priority areas. The biggest impact of this bill may be the requirement for OPR to look at changing the CEQA significance thresholds for traffic throughout the state. This could result in LOS not being an environmental impact under CEQA. OPR completed draft guidelines in February 2014, but official guidelines will not be approved by the Natural Resource Agency until spring 2015.

#### *Regional*

##### *SCAG’s 2013 RTP/SCS*

The Southern California Association of Government’s (SCAG) 2013 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) provides a regional transportation plan for six counties in Southern California: Orange, San Bernardino, Riverside, Los Angeles, Ventura, and Imperial. The primary goal of the RTP is to increase mobility for the region. With recent legislation, this plan also encompasses sustainability as a key principle in future development.

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

#### ***Orange County Congestion Management Program***

The Orange County Congestion Management Program (CMP) defines a network of state highways and arterials, LOS standards, and related procedures and provides technical justification for the approach. The CMP for Orange County was originally adopted in 1991 and updated most recently in 2013. For consistency with the CMP, CMP-designated intersections in the City (I-605 Northbound Ramps at Katella Avenue) should operate at LOS E or better. Additionally, during the CMP monitoring process, if any CMP facility operates at a deficient level, a deficiency plan is required to restore operations to an acceptable level.

A key element of the current Land Use/Transportation Analysis Program of the CMP is the traffic impact analysis report (TIA), to be prepared by local jurisdictions. The TIA reports are designed to provide an improved basis for assessing the impacts of land use decisions on the regional transportation system, both within and outside the permitting jurisdictions, by providing a consistent format to identify impacts and mitigations, and to evaluate mitigation costs. All TIA reports prepared by local jurisdictions are copied to the Congestion Management Agency, which is the Orange County Transportation Authority (OCTA). TIA reports would be prepared for projects under the General Plan Update when required by local thresholds and criteria.

#### ***OCTA Commuter Bikeways Strategic Plan***

OCTA developed the Commuter Bikeways Strategic Plan (CBSP) in 1995, with the latest update in 2009. The CBSP is a regional planning document that identifies existing and proposed bikeways in Orange County. Through the cooperation of the cities and the county, an inventory was taken of existing bikeways, and priorities for new bikeways were identified. Prioritization of the proposed bikeways, as identified in the plan, was based on several factors, including input from local jurisdictions and the public, as well as connectivity to transit and regional destinations. Three future facilities are identified by the City and the CBSP:

- Class I Bicycle Trails
  - Drainage channel behind Los Alamitos High School from the Coyote Creek Bikeway
  - Abandoned railroad ROW between McAuliffe Middle and Los Alamitos Elementary schools
- Class II Bicycle Lanes
  - Los Alamitos Boulevard

#### ***Local***

#### ***Current General Plan Circulation and Transportation Element***

The circulation and transportation element was adopted in 1989 and addresses the movement of people and goods throughout the City's transportation network. It evaluates transportation and circulation needs in the City and recommends improvements that to accommodate future demand. The City's LOS policy in the current General Plan is to maintain a citywide LOS not exceeding LOS "D" for roadways and intersections during the peak hours.

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### TRANSPORTATION AND TRAFFIC

The current General Plan also identifies that not all intersections in the City may be able meet a LOS “D”. Therefore, the current General Plan identifies procedures for the City Council to establish an intersection as a “critical intersection” if it meets one of the following criteria:

- The cost of the necessary improvements exceeds available funding sources
- The design of the necessary improvements is not compatible with the surrounding land uses.

#### ***Katella & Los Alamitos Commercial Corridors Plan***

With SCAG Compass Blue Print funding, the City prepared a commercial corridor plan for Katella Avenue and Los Alamitos Boulevard. This demonstration project analyzes and outlines actions the City can take to capitalize on the potential future bus rapid transit routes/stations, stimulate new private investment and redevelopment, and ultimately create great places in Los Alamitos. In addition to the Compass Blueprint principles, the demonstration project is driven by six specific project goals:

- Enhance the City’s sense of identity along the corridors and at key gateways.
- Create a central, pedestrian- and bicycle-friendly place for those who live, work, learn, and shop in Los Alamitos.
- Create a reason for people to turn left or right from Katella Avenue onto Los Alamitos Boulevard.
- Consolidate scattered office, medical, retail, and service uses into logical districts and nodes.
- Develop strategies for the reuse of key commercial centers and other underutilized parcels and incentivize lot consolidation.
- Maximize the multimodal nature of the corridors and capitalize on future BRT investments.

#### **5.11.1.2 EXISTING SETTING**

##### **Existing Roadway Network**

The City of Los Alamitos roadway system includes a range of facilities, including highways, arterials, commuter streets, smart streets, and local streets. Two major functions of a roadway are to serve through-traffic and provide access to adjacent property. Different facilities are intended to serve these purposes differently. For instance, arterials generally prioritize the movement of traffic over access to individual adjacent properties, and local streets prioritize access to private properties over through-traffic. Roadways are also intended to provide bicycle and pedestrian access and circulation and are the backbone of the bicycle and pedestrian network. Figure 5.11-1, *Current General Plan Roadway Classifications*, shows the current Los Alamitos General Plan roadway classifications. All other roadways are local roads and provide additional access to homes and businesses.

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

Primary regional access to Los Alamitos and its SOI is provided by I-605, I-405, and State Route 22 (SR-22), as described below:

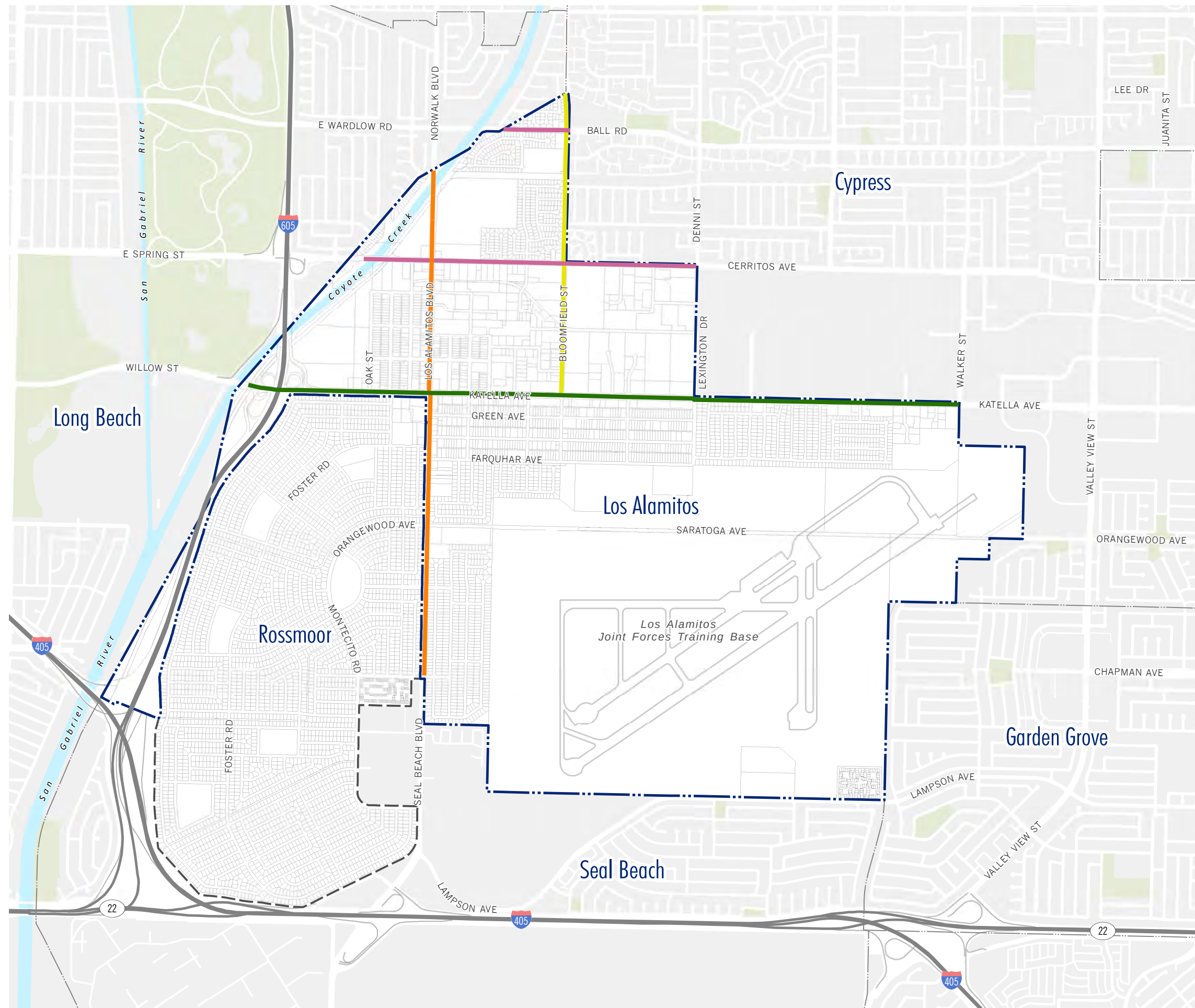
- **Interstate 405 Freeway** runs north–south immediately south of the City of Los Alamitos. It extends from Irvine in the south to the San Fernando Valley in the north. Near the study area, it generally provides five travel lanes in each direction, with an additional high occupancy vehicle (HOV) carpool lane in each direction. The posted speed limit is 65 mph. Local access is provided off Seal Beach Boulevard and Valley View Street.
- **Interstate 605 Freeway** runs north–south west of the City. It extends from I-405 in the south to Duarte in the north. Near the study area it generally provides four travel lanes in each direction, with an additional HOV carpool lane in each direction. The posted speed limit is 65 mph. Local access is provided off Katella Avenue and Cerritos Avenue.
- **State Route 22** runs east–west south of the City. It extends from Long Beach in the west to Tustin in the east. Near the study area, SR-22 joins I-405 and generally provides five travel lanes in each direction, with an additional HOV carpool lane in each direction. Local access is provided off Seal Beach Boulevard and Valley View Street.

Access throughout the City and SOI is provided by major arterials such as Katella Avenue, Cerritos Avenue, Ball Road, and Los Alamitos Boulevard. Roadways in the study area are classified in the current City of Los Alamitos General Plan as follows:

- **Los Alamitos Boulevard** is a north–south divided Major Arterial with two lanes in each direction north of Florista Street, and three lanes in each direction south of Florista Street. It extends into Los Angeles County as Norwalk Boulevard to the north and to the Pacific Ocean as Seal Beach Boulevard to the south. Los Alamitos Boulevard is a direct connector to SR-91 and I-405. Street parking is permitted along most of Los Alamitos Boulevard north of Farquhar Avenue, excluding the bridge, but is not permitted south of Farquhar Avenue. The posted speed limit ranges from 35 to 40 miles per hour (mph). Los Alamitos Boulevard is a designated truck route.
- **Bloomfield Street** is a north-south divided Secondary Street with two lanes in each direction north of Katella Avenue, and undivided with one lane in each direction south of Katella Avenue. It extends from Whittier Boulevard to the north to Farquhar Avenue to the south. Bloomfield Street is a direct connector to I-5 and SR-91 to the north. Street parking is permitted along portions of Bloomfield Street, and the posted speed limit varies between 25 and 40 mph. Bloomfield Street is a designated truck route between Katella Avenue and Cerritos Avenue.

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**Figure 5.11-1 Current General Plan Roadway Classifications**



## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

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- **Denni Street/Lexington Drive.** Denni Street stretches from Forest Lawn Memorial Park to Cerritos Avenue and is a north–south undivided Secondary Street with two lanes in each direction. Lexington Drive stretches from Cerritos Avenue to the Los Alamitos Joint Forces Training Base (JFTB) and is a north-south undivided street with one lane in each direction. Street parking is only permitted on Lexington Drive north of Farquhar Avenue and south of Katella Avenue. The posted speed limit on Denni Street/Lexington Drive in the study area is 25 mph.
- **Ball Road** is an east–west divided Primary Arterial with two lanes in each direction. It extends from Lakewood Boulevard east to Cannon Street. Street parking is not permitted on Ball Road, and the posted speed limit is 40 mph. Ball Road is a designated truck route through Los Alamitos.
- **Cerritos Avenue** is an east–west divided Primary Arterial with two lanes in each direction. From I-405, it extends west as Spring Street east as Cerritos to Walnut Street. Street parking is not permitted along most of Cerritos Avenue, and the posted speed limit is 35 mph. Cerritos Avenue is a designated truck route through Los Alamitos.
- **Katella Avenue** is an east–west divided Smart Street with four lanes in each direction west of Los Alamitos Boulevard and three lanes in each direction east of Los Alamitos Boulevard. It extends into Los Angeles County as Willow Street, Sepulveda Boulevard, and Camino Real to the west and extends into the City of Irvine to the east. Katella Avenue is a direct connector to I-110, I-710, I-405, I-605, I-5, SR-57, and SR-55. Katella Avenue is a designated truck route through the City.

### Existing Traffic Conditions

#### *Existing Roadway Intersections*

There are 26 signalized intersections in Los Alamitos, some of which are not maintained by the City, but by regional and adjacent jurisdictions. The majority of traffic signals in the City are installed along Los Alamitos Boulevard and Katella Avenue. There are no signalized intersections in Rossmore except at some of the perimeter intersections.

Based on a review of the roadway network and circulation throughout Los Alamitos, 14 intersections were selected for analysis in the City and SOI. Figures 5.11-2a and 5.11-2b, *Existing Peak Hour Intersection Traffic Volumes and Lane Configurations*, presents the existing traffic volumes and lane configurations at the study intersections. The existing intersection traffic counts for these 14 intersections were compiled from a variety of sources, including: traffic counts conducted by Fehr and Peers in September 2012, the June 2011 Los Alamitos Boulevard Corridor Traffic Study, the June 2010 Los Alamitos Medical Center Specific Plan Traffic Impact Analysis, and the 2013 Orange County CMP (see the Transportation Study in Appendix G of this DEIR for additional information on traffic counts).

Intersection operations were evaluated with the Traffix 8.0 level of service software, which is consistent with the methodologies in the Intersection Capacity Utilization methodology, as identified by OCTA. The LOS were calculated for key roadway segments in the City's regional roadway system to evaluate existing traffic



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conditions. All intersections evaluated in the traffic study are signalized. Table 5.11-3 *Existing Study Area Intersection LOS*, summarizes the existing traffic operations at the 14 study intersections during the morning (AM) and evening (PM) peak hours. The results of the intersection assessment indicate that all of the study intersections are operating at an acceptable LOS, with many intersections operating at LOS A or LOS B during one or both peak hours.

**Table 5.11-3 Existing Study Area Intersection LOS**

| No. | Intersection                                          | AM Peak                  |     | PM Peak                  |     |
|-----|-------------------------------------------------------|--------------------------|-----|--------------------------|-----|
|     |                                                       | V/C (Delay) <sup>1</sup> | LOS | V/C (Delay) <sup>1</sup> | LOS |
| 1   | Los Alamitos Boulevard at Cerritos Avenue             | 0.770                    | C   | 0.834                    | D   |
| 2   | Los Alamitos Boulevard at Katella Avenue              | 0.787                    | C   | 0.819                    | D   |
| 3   | Los Alamitos Boulevard at Farquhar Avenue             | 0.548                    | A   | 0.517                    | A   |
| 4   | Los Alamitos Boulevard at Orangewood Avenue           | 0.641                    | B   | 0.491                    | A   |
| 5   | Los Alamitos Boulevard at Bradbury Road               | 0.623                    | B   | 0.589                    | B   |
| 6   | Los Alamitos Boulevard at St. Cloud Drive             | 0.534                    | A   | 0.563                    | B   |
| 7   | Bloomfield Street at Ball Road                        | 0.690                    | B   | 0.660                    | B   |
| 8   | Bloomfield Street at Cerritos Avenue                  | 0.815                    | D   | 0.727                    | C   |
| 9   | Bloomfield Street at Katella Avenue                   | 0.671                    | B   | 0.677                    | C   |
| 10  | Lexington Avenue at Katella Avenue                    | 0.528                    | A   | 0.561                    | A   |
| 11  | Walker Street at Katella Avenue                       | 0.672                    | B   | 0.634                    | B   |
| 12  | Wallingsford Road/ Walnut Street at Katella Avenue    | 0.857                    | D   | 0.721                    | C   |
| 13  | Los Alamitos Boulevard at Rossmoor Center Way         | 0.443                    | A   | 0.617                    | B   |
| 14  | I-605 Northbound Ramps at Katella Avenue <sup>2</sup> | 0.355 (1.8)              | A   | 0.543 (7.5)              | A   |

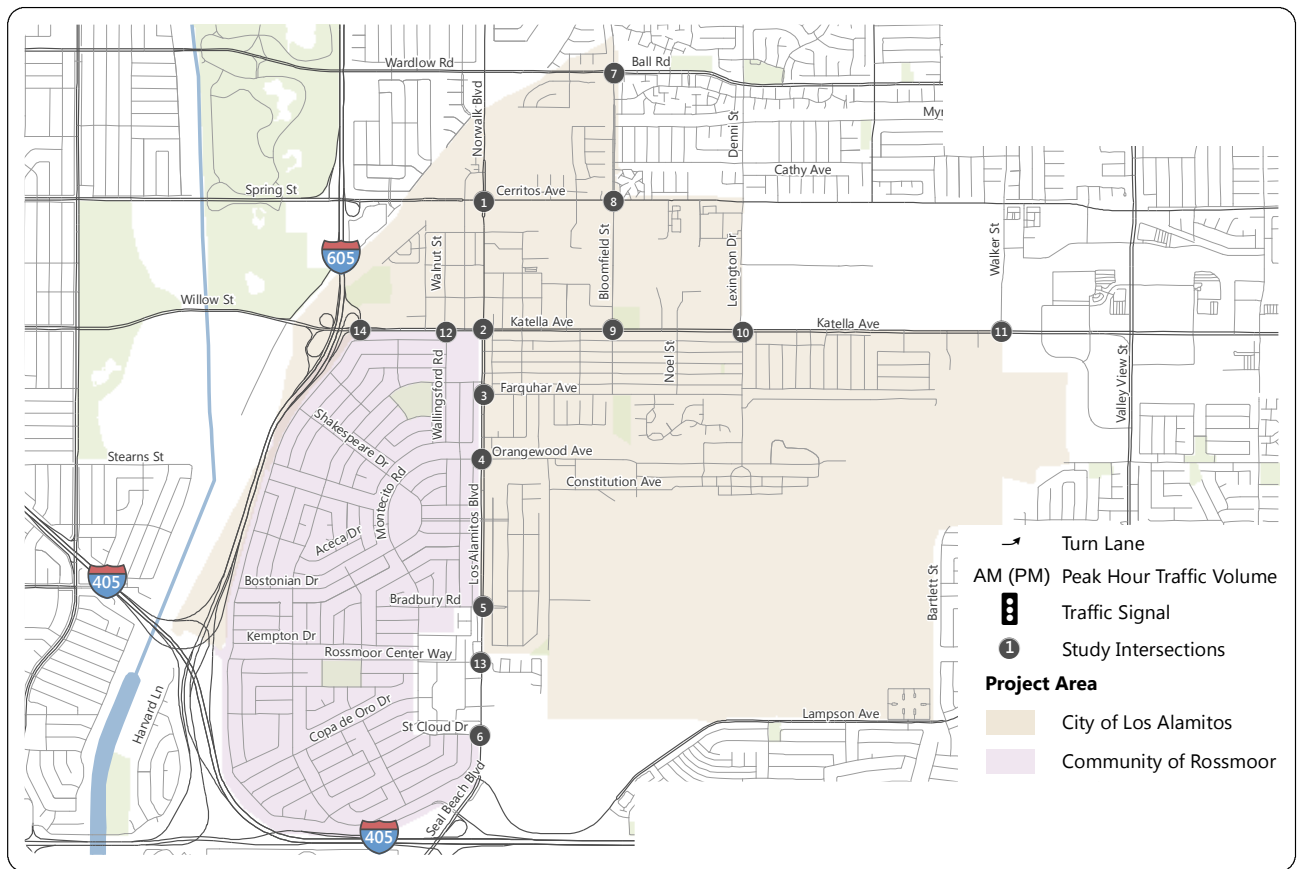
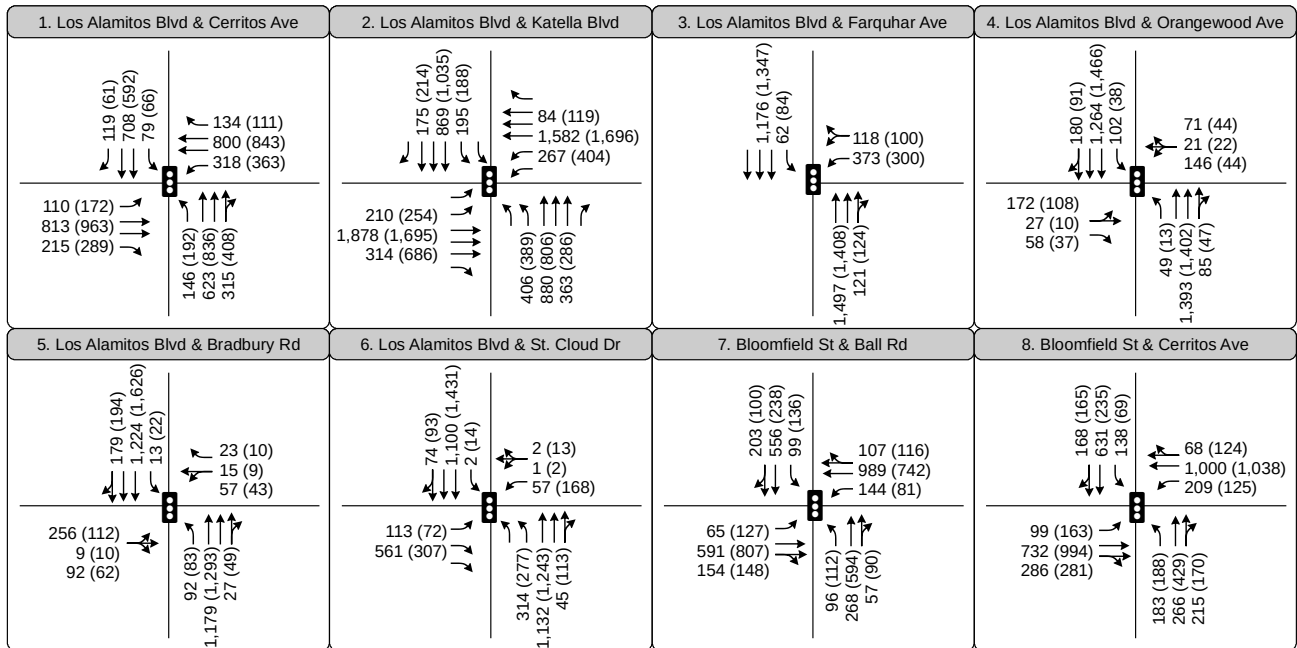
Source: Fehr and Peers 2014.

<sup>1</sup> V/C represents the volume to capacity ratio.

<sup>2</sup> Delay is presented since this is a Caltrans intersection and the Caltrans comment letter requested methodologies consistent with the Highway Capacity Manual (HCM).

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Figure 5.11-2a Existing Peak Hour Intersection Traffic Volumes and Lane Configurations



Source: Fehr & Peers, 2014

05/30/2014



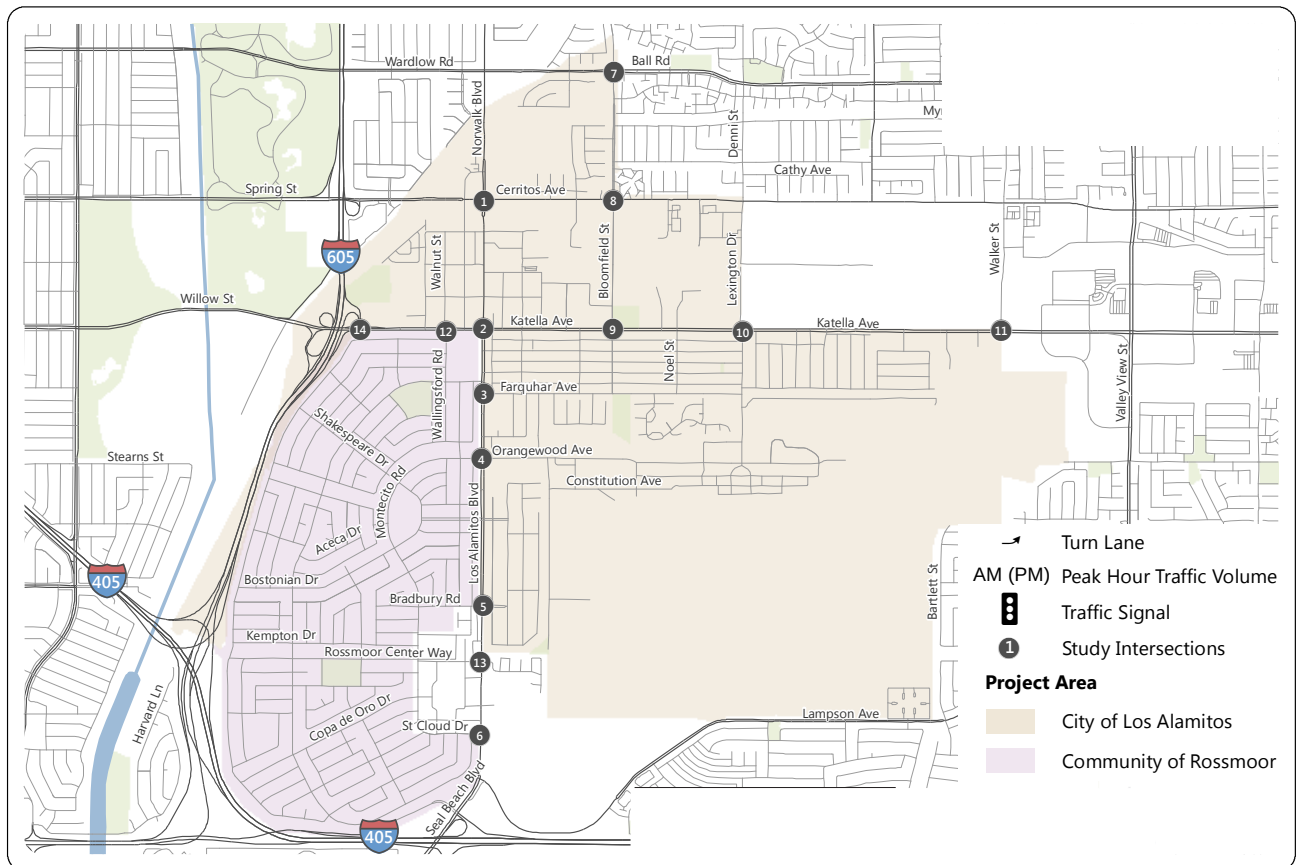
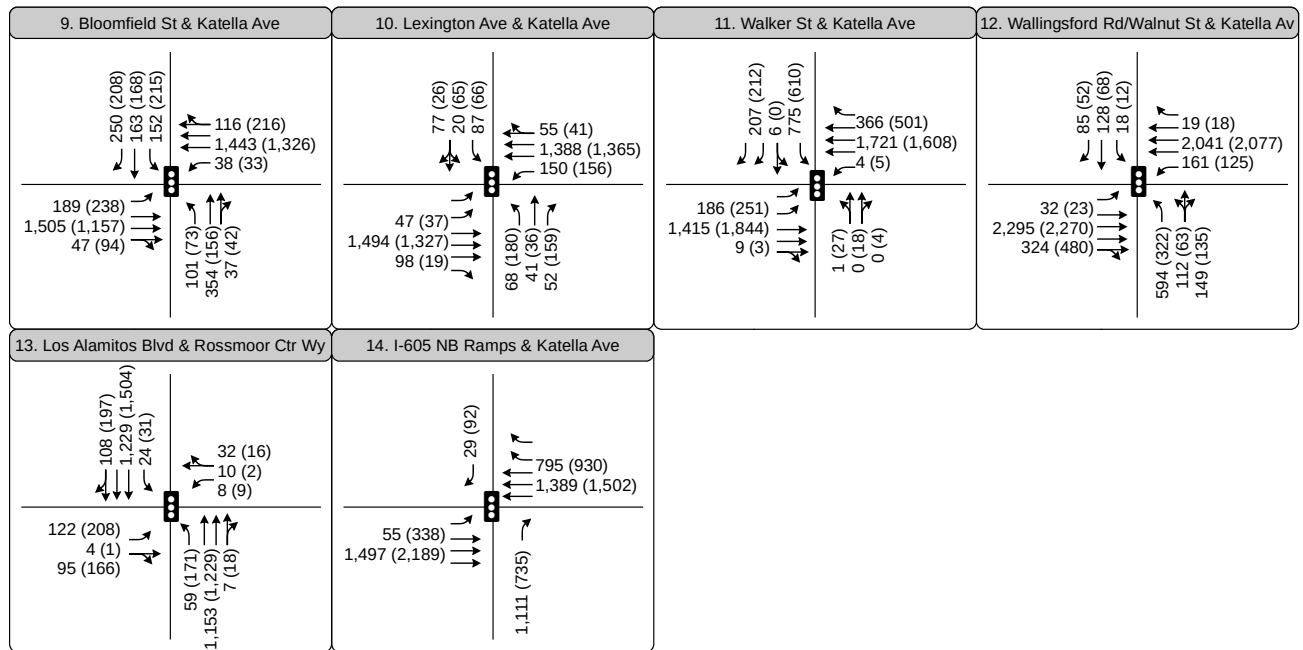
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Figure 5.11-2b Existing Peak Hour Intersection Traffic Volumes and Lane Configurations



Source: Fehr & Peers, 2014

05/30/2014

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#### Existing Roadway Segments

A roadway operations analysis was performed at the study roadway segments to provide an evaluation of how the roadway network will perform. It also provides an idea of the amount of traffic that will utilize each roadway and if the existing or proposed lane configurations can adequately handle the volumes.

Based on a review of the roadway network and circulation throughout Los Alamitos, 19 roadway segments were selected for analysis within the City and SOI, and are shown in Table 5.11-4, *Existing Study Area Roadway Segments Volume and LOS*. The existing intersection traffic counts for these 19 roadway segments were compiled from a variety of sources, including: traffic counts conducted by Fehr and Peers in September 2012, the June 2011 Los Alamitos Boulevard Corridor Traffic Study, and the March 2011 I-605 Interchange Study (see the Transportation Study in Appendix G of this DEIR for additional information on traffic counts).

The LOS were calculated for key roadway segments in the City's regional roadway system to evaluate existing traffic conditions. Table 5.11-4 presents the daily traffic volume and LOS operations on study roadway segments. As shown below, all of the existing roadway segments currently operate at an acceptable LOS of D or better.

**Table 5.11-4 Existing Study Area Roadway Segments Volume and LOS**

| Roadway                | Cross-section                                        | Classification | Traffic Volume | V/C <sup>1</sup> | LOS         |
|------------------------|------------------------------------------------------|----------------|----------------|------------------|-------------|
| Los Alamitos Boulevard | Between North City Limits and Cerritos Avenue        | Major Highway  | 24,008         | 0.67             | C or Better |
|                        | Between Cerritos Avenue and Katella Avenue           | Major Highway  | 30,437         | 0.85             | D           |
|                        | Between Katella Avenue and Farquhar Avenue           | Major Highway  | 44,340         | 0.82             | D           |
|                        | Between Farquhar Avenue and Oranewood Avenue         | Major Highway  | 45,473         | 0.84             | D           |
|                        | Between Oranewood Avenue and Bradbury Road           | Major Highway  | 41,619         | 0.77             | C or Better |
|                        | Between Bradbury Road and St. Cloud Drive            | Major Highway  | 40,805         | 0.76             | C or Better |
| Katella Avenue         | Between I-605 and Los Alamitos Boulevard             | Smart Street   | 64,007         | 0.89             | D           |
|                        | Between Los Alamitos Boulevard and Bloomfield Street | Smart Street   | 51,583         | 0.86             | D           |
|                        | Between Bloomfield Street and Lexington Drive        | Smart Street   | 46,100         | 0.77             | C or Better |

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**Table 5.11-4 Existing Study Area Roadway Segments Volume and LOS**

| Roadway           | Cross-section                                        | Classification | Traffic Volume | V/C <sup>1</sup> | LOS         |
|-------------------|------------------------------------------------------|----------------|----------------|------------------|-------------|
|                   | Between Lexington Drive and Walker Street            | Smart Street   | 45,890         | 0.76             | C or Better |
| Bloomfield Street | Between Katella Avenue and Cerritos Avenue           | Secondary      | 14,163         | 0.59             | C or Better |
|                   | Between Cerritos Avenue and Ball Road                | Secondary      | 12,471         | 0.52             | C or Better |
|                   | Between Farquhar Avenue and Katella Avenue           | Local          | 2,925          | 0.21             | C or Better |
| Cerritos Avenue   | Between I-605 and Los Alamitos Boulevard             | Primary        | 29,391         | 0.82             | D           |
|                   | Between Los Alamitos Boulevard and Bloomfield Street | Primary        | 29,932         | 0.83             | D           |
|                   | Between Bloomfield Street and Lexington Drive        | Primary        | 24,059         | 0.67             | C or Better |
| Farquhar Avenue   | Between Los Alamitos Boulevard and Bloomfield Street | Local          | 5,525          | 0.39             | C or Better |
|                   | Between Bloomfield Street and Lexington Drive        | Local          | 3,762          | 0.27             | C or Better |
| Lexington Drive   | Between Farquhar Avenue and Katella Avenue           | Local          | 5,671          | 0.41             | C or Better |

Source: Fehr and Peers 2014.

<sup>1</sup> V/C represents the volume to capacity ratio.

### Bicycle Facilities

The bicycle network in the study area consists of dedicated bicycle paths, bicycle lanes, and bicycle routes. There are three classifications used when classifying bicycle facilities, namely:

- **Class I: Bike Path.** Provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians, with minimal interruption by motor vehicles. In Los Alamitos, a bike path currently runs along the Coyote Creek Bikeway adjacent to the San Gabriel River. There is also a quarter-mile bike path north of Oak Middle School, connecting Oak Street with the Coyote Creek Bikeway. Within Rossmoor, a Class I Bike Path is in Rossmoor Park and along Wallingsford Road connecting Katella Avenue to Hedwig/Foster Road.

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- **Class II: Bike Lane.** Provides a preferential right-of-way designated and striped for the exclusive or semiexclusive use of bicycles, with some allowances for vehicle parking. Existing bike lanes exist along Bloomfield Street from the northern City limit to Katella Avenue in both directions of travel and on Ball Road from Kaylor Avenue to the western City limit. A Class II Bike Lane continues from Rossmoor Park along the entire length of Foster Road to the southern end of Rossmoor.
- **Class III: Bike Route.** Provides a route designated by signs or permanent pavement markings that are shared with either pedestrians or motorists. Bike routes exist along Bloomfield Street north of Ball Road past the northern City limit, and along Ball Road through the City limits.

Figure 5.11-3, *Existing and Planned Bicycle and Pedestrian Facilities*, identifies existing and proposed bicycle facilities in the study area.

### Pedestrian Facilities

Pedestrian facilities in Los Alamitos consist of sidewalks and crosswalks. Sidewalks are generally provided throughout the City. Some locations provide a wide sidewalk with a comfortable amount of space between the sidewalk and roadway edge. Other locations provide a sidewalk immediately adjacent to the edge of the roadway, with some narrowed due to past roadway widenings.

The signalized intersections in the City of Los Alamitos all have crosswalks on all approaches with the exception of:

- Katella Avenue and Interstate 605
- Carbon Creek Channel and Bloomfield Street

Having crosswalks on all approaches to the signalized intersections allows pedestrians the choice of where to cross and provides for good pedestrian access. Figure 5.11-3 also identifies the crosswalks available in the study area. The all-way and side-street stop-controlled intersections in the City have a mix of crosswalks on all, some, and no approaches. At many of the side-street stop-controlled intersections, crosswalks are only provided parallel to the major roadway (not across it).

Overall, the City and Rossmoor provide adequate infrastructure for bicycles and pedestrians. In many places, however, biking and walking environments are not pleasant and do not encourage walking or biking—especially along larger roadways. Given the family-oriented nature of both communities, the large number of children and schools, and the desire for a walkable downtown, a number of improvements are identified to increase the community's safety and quality of life.

### Transit Facilities

Public transit is beneficial in a number of ways. It provides transportation for groups not having access to vehicles or who choose not to drive. Public transit also provides relief to a city's traffic network, because people who are not driving individual vehicles are not contributing to traffic congestion.



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Transit service in the City and SOI is provided by OCTA. Local bus routes provide service along Los Alamitos Boulevard, Bloomfield Street, Katella Avenue, and Cerritos Avenue. In 2010, OCTA also planned a bus rapid transit route (BRT) along Katella Avenue. Subsequent budget cuts postponed these plans indefinitely, and the study area will continue to be served only by local bus service. Figure 5.11-4, *Existing Transit Facilities*, shows existing bus routes and bus stops in Los Alamitos. The five lines are described in detail:

- **Route 42/42A** generally runs east–west, providing service from Seal Beach to Orange. The major streets of service are Los Alamitos Boulevard, Lincoln Avenue, and Tustin Street. Service is generally provided at 20-minute headways.
- **Route 46** generally runs east–west, providing service from Los Alamitos to Orange. The major streets of service are Ball Road and Tustin Street. In the study area, Route 46 only provides service in the eastbound direction. Service is generally provided at 30-minute headways.
- **Route 50** generally runs east–west, providing service from Long Beach to Orange. The major streets of service are Studebaker Road, Katella Avenue, and Tustin Street. In the study area, Route 50 provides regular service in both directions. Service is generally provided at 30-minute headways.
- **Route 211** is an express route that generally runs north–south via I-405, providing service between Seal Beach and Irvine. Route 211 travels along Lampson Avenue through the study area. Service is generally provided at 30-minute headways.
- **Route 701** is an express route that generally runs north-south via I-405 and I-605, providing service between Huntington Beach and Downtown Los Angeles. Route 701 travels along Lampson Avenue and Los Alamitos Boulevard through the study area. Service headways range from 20 to 50 minutes.

### Railroad Facilities

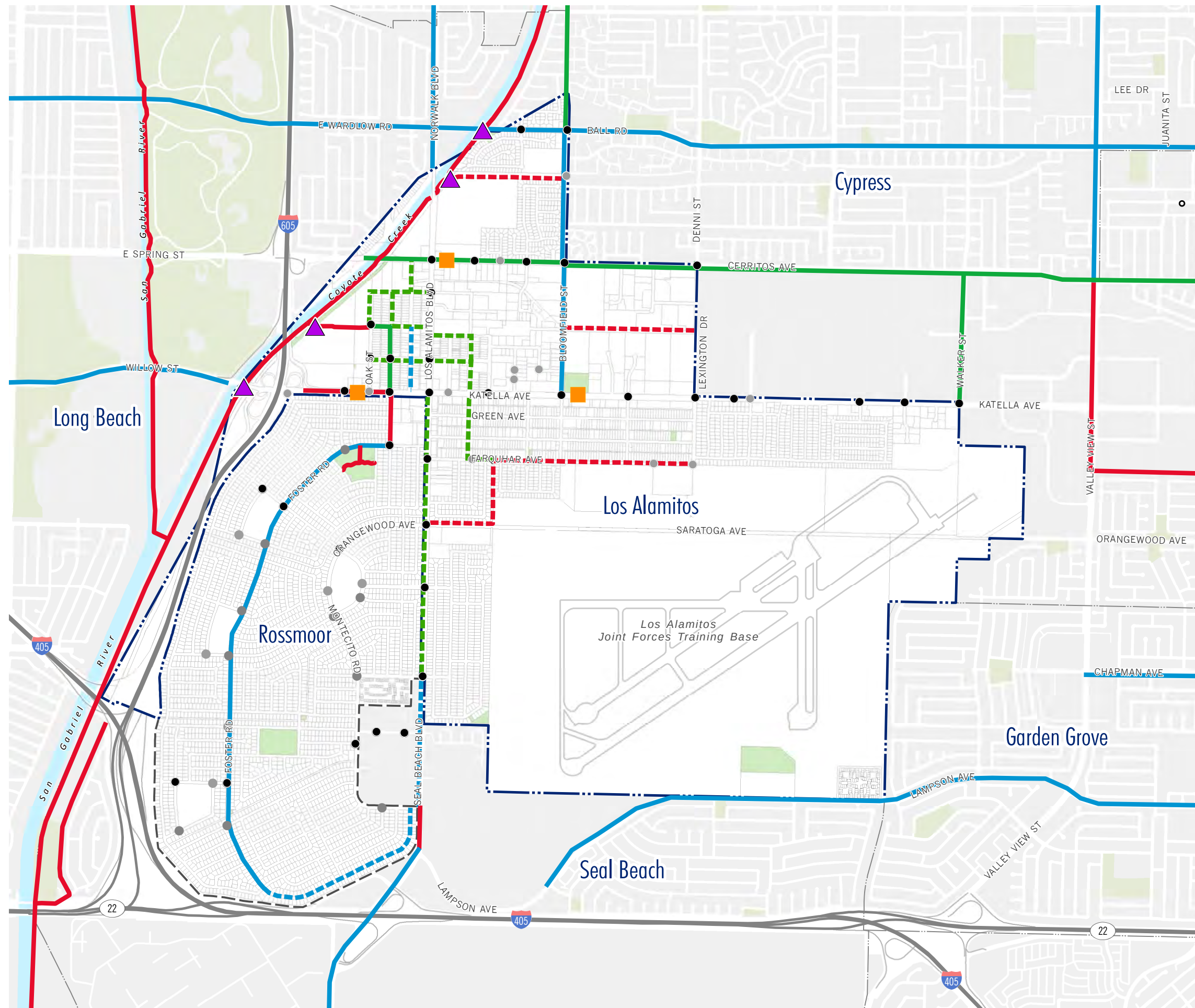
There are no passenger rail lines through the City of Los Alamitos. The nearest are west of the City near Long Beach (Metro Blue Line) and north of the city near Norwalk and Santa Fe Springs (Metro Green Line). Buena Park offers the closest Metrolink Station (Orange County Line) and Amtrak service (Pacific Surfliner). Right-of-way (ROW) previously used by the Southern Pacific Railroad is found in various parts of the City. In the planned industrial area south of Cerritos Avenue between Los Alamitos Boulevard and Bloomfield Street, the ROW has been reused for operations and access by the industrial businesses. The ROW north of Katella Avenue between Lexington Drive and Bloomfield Street has and will continue to be slated for a Class I Trail.

### Aviation Facilities

The Los Alamitos Army Airfield (AAF) is a military airport within the JFIB and not open to the public. The AAF contains two runways that require permission to land. Approaches and departures at AAF have specific flight routes to assist in noise abatement. Typically, flights are only allowed to arrive/depart from the north, south, and east along routes that avoid flying over homes. No public airport facilities exist in the City.

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**Figure 5.11-3 Existing and Proposed Bicycle and Pedestrian Facilities**



▲ Bikeway Access Point

■ Pedestrian Bridges

### Existing Bicycle Facilities

— Class I

— Class II

— Class III

### Proposed Bicycle Facilities

- - - Class I

- - - Class II

- - - Class III

### Existing Crosswalks

● Both N/S and E/W

● Either N/S or E/W

□ City Boundary

□ Sphere of Influence

— Other City Boundaries

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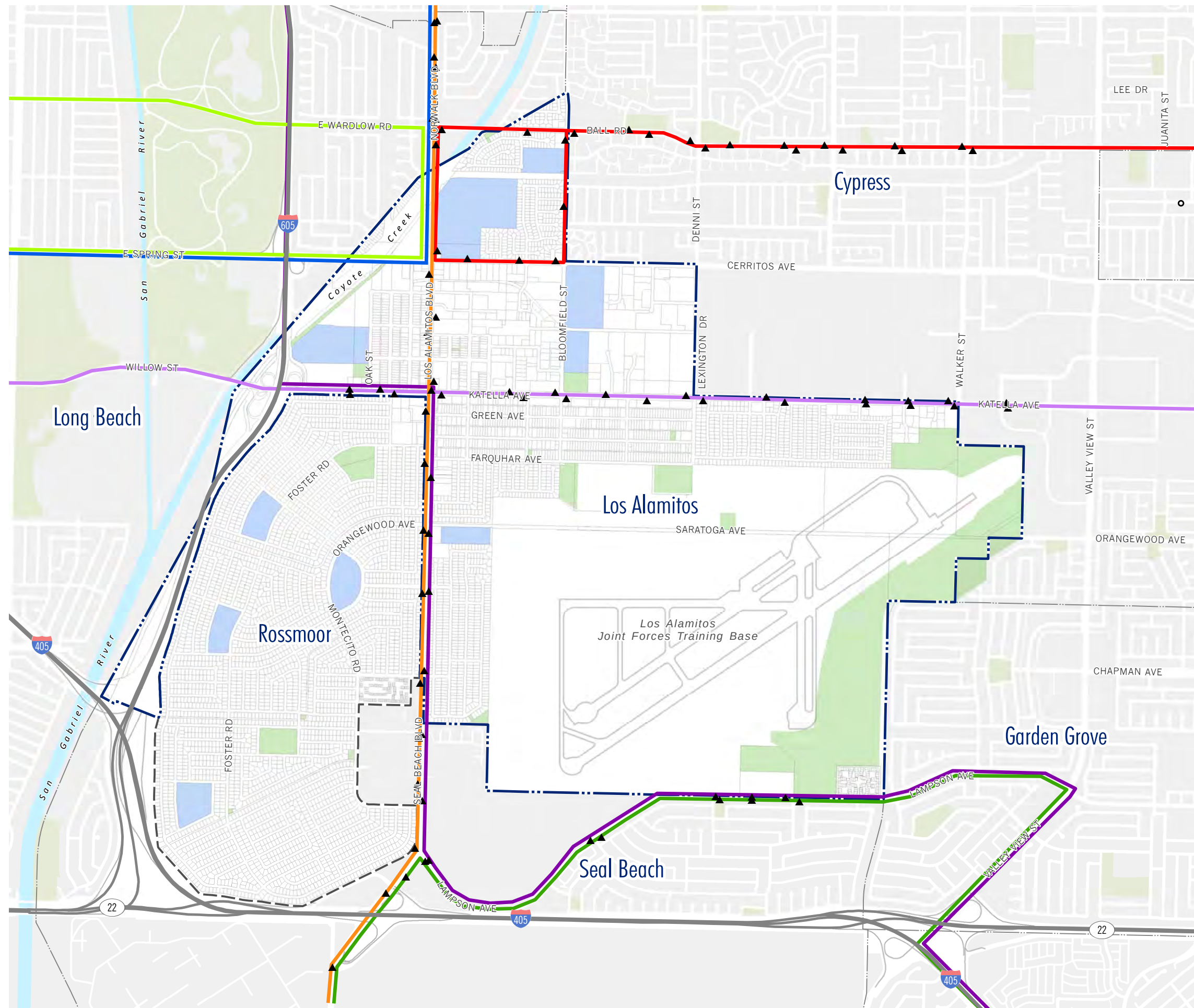
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**Figure 5.11-4 Existing Transit Facilities**



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#### Truck Routes

The goods or freight movement system in Los Alamitos consists of designated truck routes. The Los Alamitos Municipal Code (Chapter 10, Section 20) has language relating to truck routes. It defines weight restrictions, specifies the ability of trucks to enter areas not designated as truck routes, and defines the truck routes within the City. Roads in the study area that are truck routes include Katella Avenue, Los Alamitos Boulevard, Bloomfield Street, Cerritos Avenue, and Ball Road.

Vehicles weighing over four tons in gross vehicle weight are prohibited on Catalina Street between Los Alamitos Boulevard and Cherry Street, Pine Street between Florista Street and Catalina Street, Reagan Street between Katella Avenue and Catalina Street, and Cherry Street between Florista Street and Catalina Street.

#### 5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

- T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-5 Result in inadequate emergency access.
- T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold T-3
- Threshold T-4
- Threshold T-5

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These impacts will not be addressed in the following analysis.

### 5.11.3 Environmental Impacts

#### 5.11.3.1 METHODOLOGY

##### Travel Demand Forecasting

The travel demand forecasting model for Orange County (OCTAM), version 3.4, was used to evaluate growth within the City of Los Alamitos and the region for 2010 and 2035 conditions. OCTAM incorporates land use and roadway network to “assign” traffic to the local roadway system. The model uses inputs such as land use, travel behavior, and roadway characteristics (number of lanes, speed, etc.) to estimate traffic demand on roadways. The model runs through numerous iterations as it estimates traffic congestion on certain segments and reroutes traffic to other roadways that show a time savings for that trip. OCTAM was developed and is maintained by OCTA for use in preparing regional transportation studies.

OCTAM incorporates the latest available land use forecasts for Orange County: Orange County Projections 2012. As part of the forecasting process, the socioeconomic data for the City of Los Alamitos was updated to reflect the existing and proposed project conditions. Land use information for buildout of the City was incorporated in the model’s traffic analysis zones (TAZs) in the City and SOI. Land uses for TAZs in the City and SOI were modified according to population, employment, and households forecasts.

The OCTAM future roadway network assumptions incorporated into the travel demand model are consistent with the SCAG RTP’s funded roadway projects list, the needs identified by comparing the model results to Table 5.11-2. Additionally, the roadway network analyzed is consistent with the proposed General Plan Update. Specific roadway improvements that were assumed include:

- Los Alamitos was modeled as a four-lane facility north of Katella Avenue, consistent with the Corridors Plan (retaining the current four active lanes and all turning movements, but avoiding an increase to six active lanes).
- The I-605 and I-405 freeways assume new HOV lanes in each direction.
- Additional turn lanes per the required mitigation measures from the Medical Center Specific Plan EIR, including a westbound left-turn lane at the Los Alamitos Boulevard/Cerritos Avenue intersection.

##### Intersection Operations

Intersection operations for existing and 2035 conditions were evaluated with the Traffix 8.0 level of service software, which is consistent with the methodologies identified in the Intersection Capacity Utilization methodology identified by OCTA. There are no unsignalized study intersections.

The following assumptions were made in Traffix to conduct the analysis:

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- Saturation flow rate of 1,700 vehicles per hour per lane (vphpl) for all left turn lanes, through-lanes, and right turn lanes, except for exclusive right turn lanes that allow right turns on red, whose rate is 1,955 vphpl. These assumptions are consistent with the Orange County Congestion Management Program.
- Lost time factor of 0.05 seconds V/C.
- De facto right turn lanes were not assumed.

The traffic modeling methodology is discussed in more detail in the Transportation Study (see Appendix G).

#### Future Projects under the General Plan Update

The study area for the General Plan Update is the City of Los Alamitos and its SOI. Impacts are based on OCTAM's regional transportation model, which includes regional growth and growth from neighboring jurisdictions. It should be noted that traffic impact analyses are required for individual development projects in the City and would be required to identify the project study area where potential traffic impacts associated with the new development could occur. If the study area includes intersections and roadway segments outside the City of Los Alamitos, future development projects would be required to evaluate impacts based on the respective jurisdictions LOS standards. Furthermore, OCTA is required by state law to adopt and update a CMP for Orange County. One of the required elements is a program to analyze the impacts of land use decisions made by local jurisdictions on regional transportation systems, including an estimate of the costs associated with mitigating those impacts. The legislation also states that when the level of service fails to achieve the adopted standard, a deficiency plan must be adopted. OCTA has adopted a development mitigation program requirement for local agencies to comply with the deficiency plan provisions of the CMP legislation. Implementation of a development mitigation program is required of each local jurisdiction in the Orange County to maintain conformance with the Orange County CMP. Each development mitigation program must achieve the development contribution requirements established by OCTA. The CMP negated the need for individual project CMP traffic impact analysis, effectively making each jurisdiction responsible to account for the future year regional transportation needs within their City and pay for the improvements through their individual development impact fee programs.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.11-1:** Buildout of the City of Los Alamitos plus cumulative growth in the region would generate an increase in traffic volumes that would impact levels of service at local area intersections and roadway segments. [Threshold T-1]

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**Impact Analysis:** For the purpose of the following analysis, it is important to note that the proposed General Plan Update is a regulatory document that lays down the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur in the City, all such development is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.



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The proposed roadway circulation network for the General Plan Update is shown in Figure 5.11-5, *Proposed General Plan Roadway Classifications*, which include the following classifications:

- **Smart Street.** A Smart Street is designated a six- to eight-lane divided roadway with a maximum right-of-way width of 122 feet. The Smart Street classification is estimated to have a design capacity of 72,000 vehicles per day in the eight-lane configuration and 60,000 vehicles per day in the six-lane configuration.
- **Major Arterial.** A major arterial is designated a six-lane divided roadway, with a typical right-of-way width of 120 feet. A major arterial is designed to accommodate a maximum of 54,000 daily vehicle trips.
- **Primary Arterial.** A primary arterial is designated a four-lane divided roadway with a typical right-of-way width of 100 to 120 feet. A primary arterial is designed to accommodate a maximum of 36,000 daily vehicle trips.
- **Secondary Arterial.** A secondary arterial is designated a four-lane undivided roadway with a typical right-of-way width of 80 feet. A secondary arterial is designed to accommodate a maximum of 24,000 daily vehicle trips.

#### General Plan Buildout Intersection LOS

The LOS was calculated for key study intersections with the future intersection lane configurations to evaluate General Plan Update traffic conditions. As previously described, LOS “D” is the maximum acceptable level of congestion at any intersection in the City of Los Alamitos.

Table 5.11-5, *General Plan Update 2035 Study Area Intersection LOS*, summarizes the LOS results at the study intersections. Figures 5.11-6a and 5.11-6b, *General Plan Buildout Peak Hour Intersection Traffic Volumes and Lane Configurations*, presents the General Plan Update traffic volumes and lane configurations at the study intersections.

The results of the intersection assessment indicate that three of the study intersections would not operate within acceptable LOS standards during at least one peak hour:

- Los Alamitos Boulevard at Katella Avenue: LOS E during the AM peak hour
- Bloomfield Street at Cerritos Avenue: LOS F in the AM peak hour and LOS E in the PM peak hour
- Wallingsford Road/ Walnut Street at Katella Avenue: LOS F in the AM peak hour

The proposed intersection improvements required to meet acceptable LOS standards would be difficult to achieve due to right-of-way constraints at the intersections of Los Alamitos Boulevard at Katella Avenue and Wallingsford Road/Walnut Street at Katella Avenue. Consequently, implementation of the General Plan and expected increases in regional traffic growth would result in a significant impact these three intersections.

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Table 5.11-5 General Plan Update 2035 Study Area Intersection LOS

| No. | Intersection                                             | AM Peak                     |     |                             |          | PM Peak                     |     |                             |          |
|-----|----------------------------------------------------------|-----------------------------|-----|-----------------------------|----------|-----------------------------|-----|-----------------------------|----------|
|     |                                                          | Existing                    |     | 2035                        |          | Existing                    |     | 2035                        |          |
|     |                                                          | V/C<br>(Delay) <sup>1</sup> | LOS | V/C<br>(Delay) <sup>1</sup> | LOS      | V/C<br>(Delay) <sup>1</sup> | LOS | V/C<br>(Delay) <sup>1</sup> | LOS      |
| 1   | Los Alamitos Boulevard<br>at Cerritos Avenue             | 0.770                       | C   | 0.821                       | D        | 0.834                       | D   | 0.835                       | D        |
| 2   | Los Alamitos Boulevard<br>at Katella Avenue              | 0.787                       | C   | 0.938                       | E        | 0.819                       | D   | 0.894                       | D        |
| 3   | Los Alamitos Boulevard<br>at Farquhar Avenue             | 0.548                       | A   | 0.544                       | A        | 0.517                       | A   | 0.515                       | A        |
| 4   | Los Alamitos Boulevard<br>at Orangewood Avenue           | 0.641                       | B   | 0.662                       | B        | 0.491                       | A   | 0.491                       | A        |
| 5   | Los Alamitos Boulevard<br>at Bradbury Road               | 0.623                       | B   | 0.675                       | B        | 0.589                       | B   | 0.593                       | A        |
| 6   | Los Alamitos Boulevard<br>at St. Cloud Drive             | 0.534                       | A   | 0.570                       | A        | 0.563                       | B   | 0.551                       | A        |
| 7   | Bloomfield Street at Ball<br>Road                        | 0.690                       | B   | 0.809                       | D        | 0.660                       | B   | 0.771                       | C        |
| 8   | Bloomfield Street at<br>Cerritos Avenue                  | 0.815                       | D   | 1.003                       | F        | 0.727                       | C   | 0.915                       | E        |
| 9   | Bloomfield Street at<br>Katella Avenue                   | 0.671                       | B   | 0.885                       | D        | 0.677                       | C   | 0.894                       | D        |
| 10  | Lexington Avenue at<br>Katella Avenue                    | 0.528                       | A   | 0.681                       | B        | 0.561                       | A   | 0.652                       | B        |
| 11  | Walker Street at Katella<br>Avenue                       | 0.672                       | B   | 0.780                       | C        | 0.634                       | B   | 0.776                       | C        |
| 12  | Wallingsford Road/<br>Walnut Street at Katella<br>Avenue | 0.857                       | D   | 1.012                       | F        | 0.721                       | C   | 0.799                       | C        |
| 13  | Los Alamitos Boulevard<br>at Rossmoor Center Way         | 0.443                       | A   | 0.483                       | A        | 0.617                       | B   | 0.609                       | B        |
| 14  | I-605 Northbound Ramps<br>at Katella Avenue <sup>2</sup> | 0.355<br>(1.8)              | A   | 0.315<br>(2.1)              | A<br>(A) | 0.543<br>(7.5)              | A   | 0.672<br>(7.5)              | B<br>(A) |

Source: Fehr and Peers 2014

Notes: Intersections operating below acceptable LOS standards are noted in **bold**.

The analysis in this study, which is consistent with OCTA methodologies, is not able to show the benefits (safety or operationally) of limiting the pedestrian-bicycle conflicts at the study intersections. Intersection capacities can increase by up to 10 percent if pedestrians do not conflict with vehicles; additionally, safety is dramatically improved since the conflict points of at-grade crossings are eliminated.

<sup>1</sup> V/C represents the volume to capacity ratio.<sup>2</sup> Delay is presented since this is a Caltrans intersection and the Caltrans comment letter requested methodologies consistent with the Highway Capacity Manual (HCM).

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#### General Plan Buildout Roadway Segment LOS

The LOS was calculated for key roadway segments in the City's regional roadway system to evaluate General Plan Update traffic conditions. According to the City's recommended circulation policies, LOS "D" is the minimum acceptable level of congestion on a daily basis for any classified roadway. Table 5.11-6, *General Plan Update 2035 Study Area Roadway Segments Volume and LOS*, shows the forecast traffic volumes, proposed roadway classifications, and respective LOS.

**Table 5.11-6 General Plan 2035 Study Area Roadway Segments Volume and LOS**

| Roadway                | Cross-section                                        | Proposed Classification | Existing       |                  |             | 2035           |                  |             |
|------------------------|------------------------------------------------------|-------------------------|----------------|------------------|-------------|----------------|------------------|-------------|
|                        |                                                      |                         | Traffic Volume | V/C <sup>1</sup> | LOS         | Traffic Volume | V/C <sup>1</sup> | LOS         |
| Los Alamitos Boulevard | Between North City Limits and Cerritos Avenue        | Primary                 | 24,008         | 0.67             | C or Better | 26,130         | 0.73             | C or Better |
|                        | Between Cerritos Avenue and Katella Avenue           | Primary                 | 30,437         | 0.85             | D           | 30,440         | 0.85             | D           |
|                        | Between Katella Avenue and Farquhar Avenue           | Major Highway           | 44,340         | 0.82             | D           | 45,770         | 0.85             | D           |
|                        | Between Farquhar Avenue and Orangewood Avenue        | Major Highway           | 45,473         | 0.84             | D           | 46,090         | 0.85             | D           |
|                        | Between Orangewood Avenue and Bradbury Road          | Major Highway           | 41,619         | 0.77             | C or Better | 42,240         | 0.78             | C or Better |
|                        | Between Bradbury Road and St. Cloud Drive            | Major Highway           | 40,805         | 0.76             | C or Better | 41,770         | 0.77             | C or Better |
| Katella Avenue         | Between I-605 and Los Alamitos Boulevard             | Smart Street            | 64,007         | 0.89             | D           | 74,620         | 1.04             | F           |
|                        | Between Los Alamitos Boulevard and Bloomfield Street | Smart Street            | 51,583         | 0.86             | D           | 64,730         | 1.08             | F           |
|                        | Between Bloomfield Street and Lexington Drive        | Smart Street            | 46,100         | 0.77             | C or Better | 59,750         | 0.99             | E           |
|                        | Between Lexington Drive and Walker Street            | Smart Street            | 45,890         | 0.76             | C or Better | 57,710         | 0.96             | E           |
| Bloomfield Street      | Between Katella Avenue and Cerritos Avenue           | Secondary               | 14,163         | 0.59             | C or Better | 16,710         | 0.70             | C or Better |
|                        | Between Cerritos Avenue and Ball Road                | Secondary               | 12,471         | 0.52             | C or Better | 13,680         | 0.57             | C or Better |
|                        | Between Farquhar Avenue and Katella Avenue           | Local                   | 2,925          | 0.21             | C or Better | 2,930          | 0.21             | C or Better |

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Table 5.11-6 General Plan 2035 Study Area Roadway Segments Volume and LOS

| Roadway         | Cross-section                                        | Proposed Classification | Existing       |                  |             | 2035           |                  |             |
|-----------------|------------------------------------------------------|-------------------------|----------------|------------------|-------------|----------------|------------------|-------------|
|                 |                                                      |                         | Traffic Volume | V/C <sup>1</sup> | LOS         | Traffic Volume | V/C <sup>1</sup> | LOS         |
| Cerritos Avenue | Between I-605 and Los Alamitos Boulevard             | Primary                 | 29,391         | 0.82             | D           | 33,280         | 0.92             | E           |
|                 | Between Los Alamitos Boulevard and Bloomfield Street | Primary                 | 29,932         | 0.83             | D           | 29,940         | 0.83             | D           |
|                 | Between Bloomfield Street and Lexington Drive        | Primary                 | 24,059         | 0.67             | C or Better | 25,520         | 0.71             | C or Better |
| Farquhar Avenue | Between Los Alamitos Boulevard and Bloomfield Street | Local                   | 5,525          | 0.39             | C or Better | 5,530          | 0.40             | C or Better |
|                 | Between Bloomfield Street and Lexington Drive        | Local                   | 3,762          | 0.27             | C or Better | 3,770          | 0.27             | C or Better |
| Lexington Drive | Between Farquhar Avenue and Katella Avenue           | Local                   | 5,671          | 0.41             | C or Better | 5,680          | 0.41             | C or Better |

Source: Fehr and Peers 2014

Note: Segments operating below acceptable LOS standards are noted in **bold**.<sup>1</sup> V/C represents the volume to capacity ratio.

As shown in Table 5.11-6, all of the roadways in the City are forecast to operate at LOS “D” or better, with the exception of the following roadway segments:

- Katella Avenue
  - Between I-605 and Los Alamitos Boulevard: LOS F
  - Between Los Alamitos Boulevard and Bloomfield Street: LOS F
  - Between Bloomfield Street and Lexington Drive: LOS E
  - Between Lexington Drive and Walker Street: LOS E
- Cerritos Avenue
  - Between I-605 and Los Alamitos Boulevard: LOS E

The improvements required to meet acceptable LOS standards on the proposed roadway segment may be difficult to achieve due to right-of-way constraints along Katella Avenue and Cerritos Avenue. Consequently, implementation of the General Plan Update and expected increases in regional traffic growth would result in a significant impact to the roadway segments identified above.

## Summary

Three intersections and two roadways in the City would exceed the City’s LOS standards. The Mobility and Circulation Element includes the following policies to ensure efficient use of the City’s circulation network:

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- **Policy 1.4 Level of Service** - Maintain a Level of Service (LOS) “D” or better along all City arterials and at intersections during peak hours, except under the following circumstances:
  - There is a desire to prioritize pedestrians and/or bicyclists over vehicles
  - Insufficient ROW exists
  - The intersection or roadway is considered built out

The following intersections and roadways are exempt from the LOS D standard:

- Katella Avenue and Los Alamitos Boulevard intersection
  - Katella Avenue and Walnut Street/Wallingsford Road intersection
  - Bloomfield Street and Cerritos Avenue intersection
  - Katella Avenue (between Interstate 605 and Walker Street)
  - Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard)
- **Policy 1.7 Fair share of improvements** - Require new development to pay a fair share of needed transportation improvements based on a project’s impacts to the multimodal transportation network.

Policy 1.4 of the General Plan Update identifies these three intersections and two roadways as “exempt,” but based on the current General Plan, the City’s current standard of LOS “D” for these segments, and their elevated levels of congestion, impacts would be significant.

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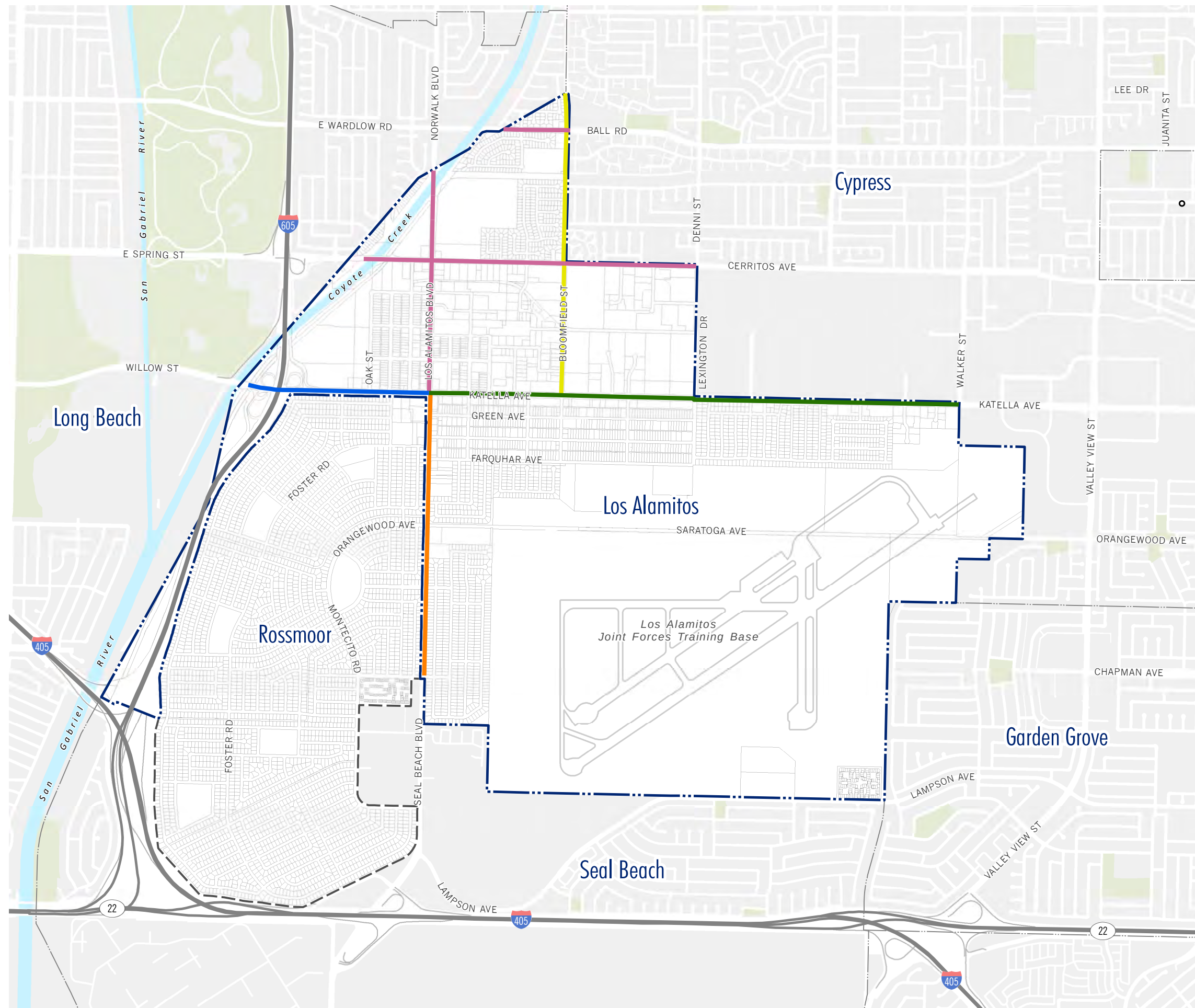
**Impact 5.11-2: Project-related trip generation in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding the congestion management agency service standards. [Threshold T-2]**

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**Impact Analysis:** The Orange County CMP designates standards at CMP intersections, and requires that all intersections operate at LOS E or better. Katella Avenue at the I-605 northbound ramps falls under the jurisdiction of Los Alamitos and is designated a CMP location. Katella Avenue is also identified on the CMP highway system, although there are no specific CMP requirements for roadway segment assessment. Since Los Alamitos has proposed a stricter LOS requirement than the CMP (LOS “D”), the LOS standard for the City was used to evaluate all study locations, including the CMP intersection of Katella Avenue at the I-605 northbound ramps. As shown in Table 5.11-5, the intersection of Katella Avenue and the I-605 northbound ramps is not projected to exceed the CMP threshold of LOS E at General Plan buildout.

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**Figure 5.11-5 Proposed General Plan Roadway Classifications**



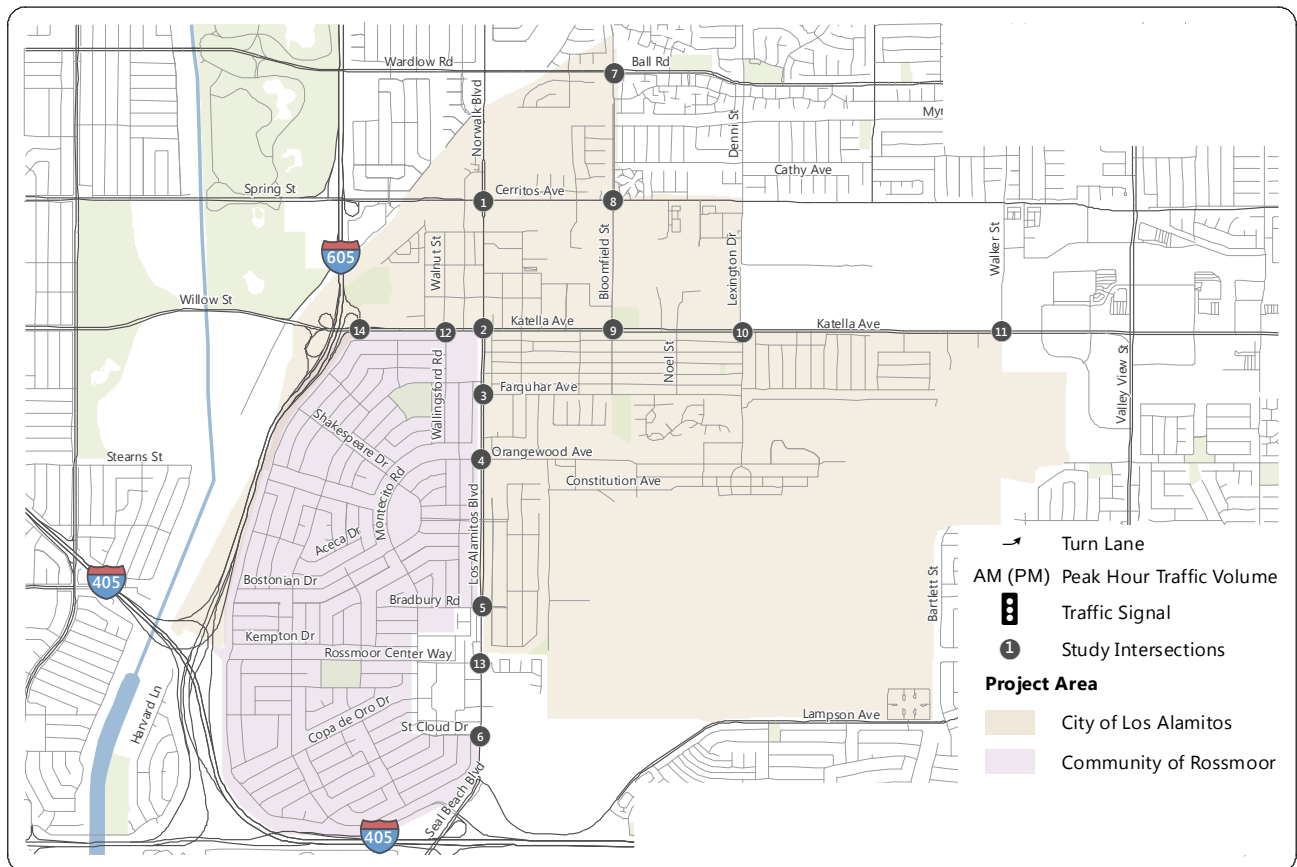
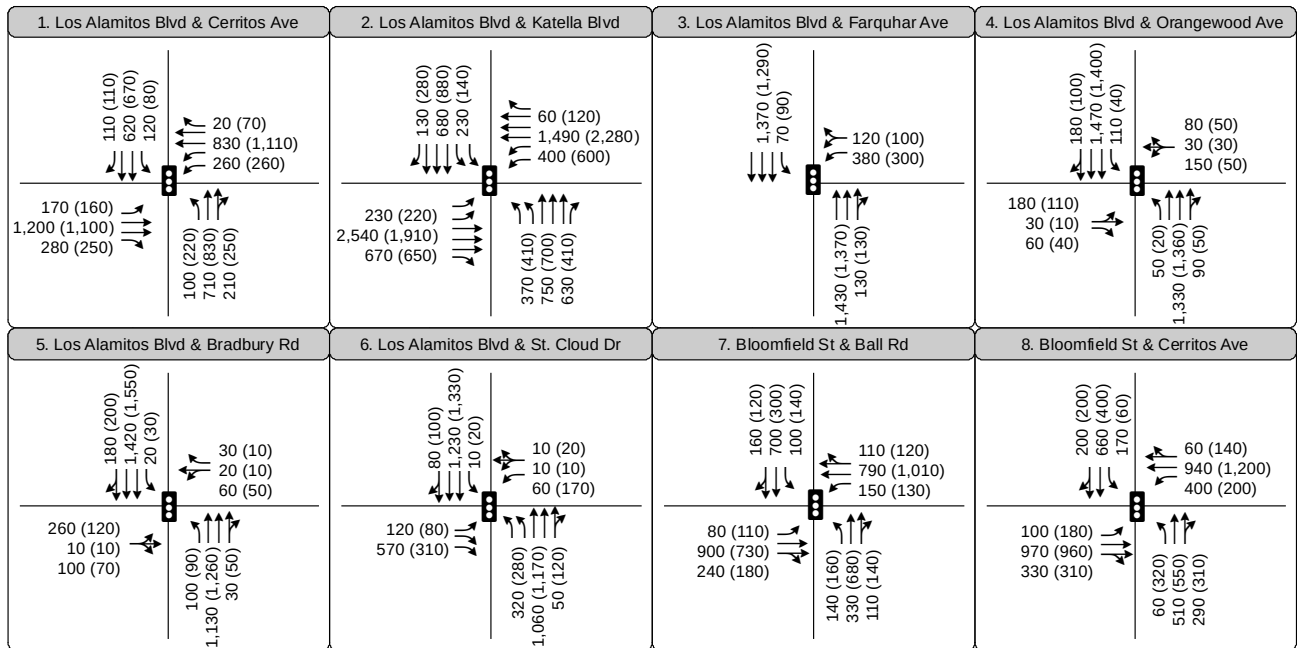
## 5. Environmental Analysis

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Figure 5.11-6a General Plan Buildout Peak Hour Intersection Traffic Volumes and Lane Configurations



Source: Fehr & Peers, 2014

05/30/2014





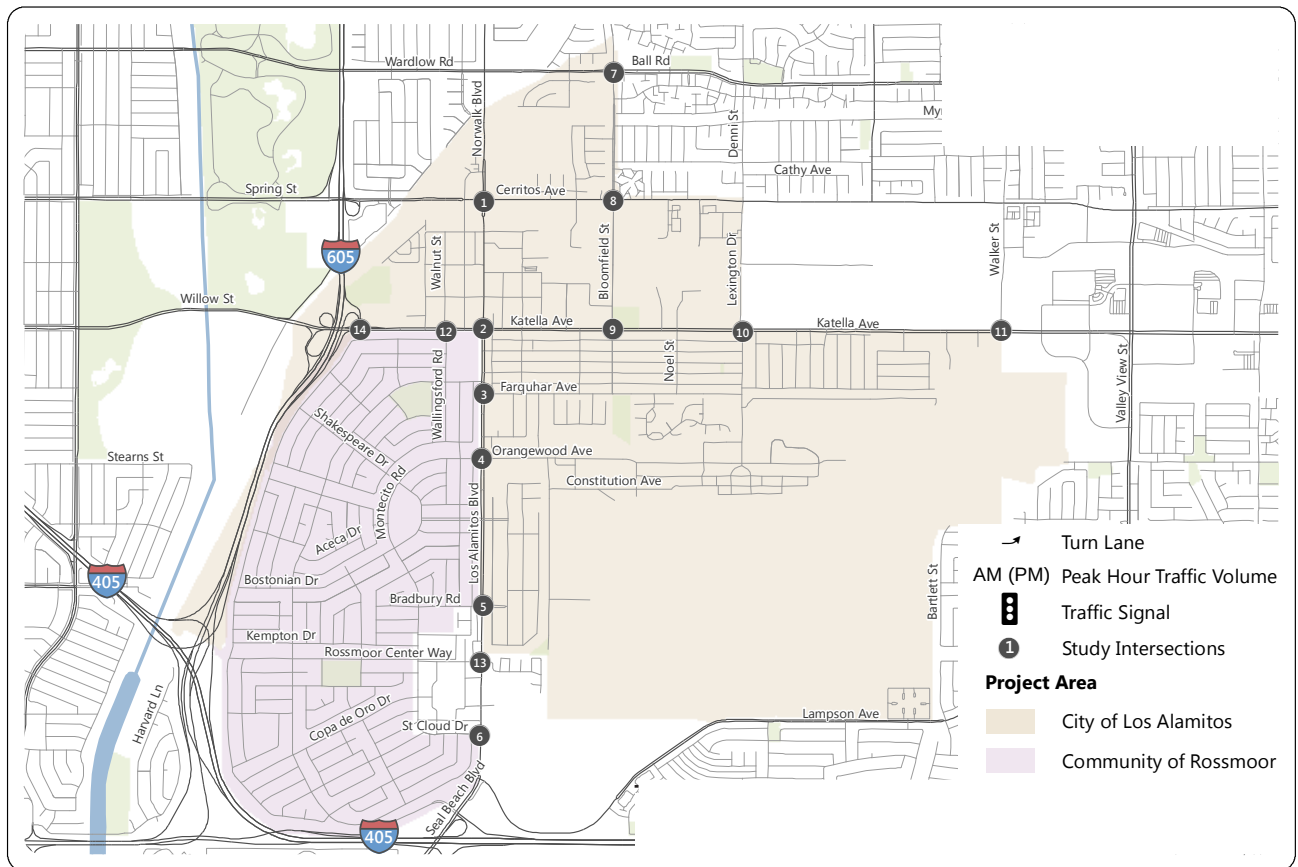
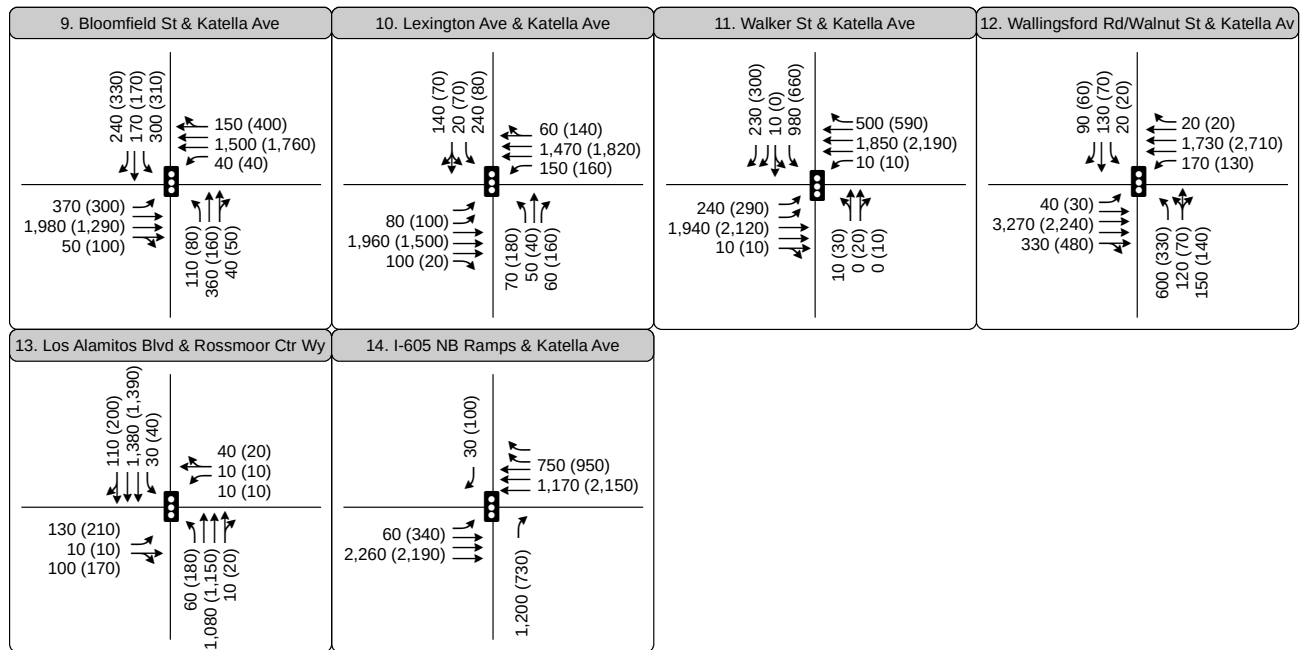
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## 5. Environmental Analysis

Figure 5.11-6b General Plan Buildout Peak Hour Intersection Traffic Volumes and Lane Configurations



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#### Impact 5.11-3: The General Plan Update includes policies, plans, and programs for alternative transportation. [Threshold T-6]

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**Impact Analysis:** The Mobility and Circulation Element policies support public transit, bicycle improvements, and improvements to the pedestrian facilities by closing gaps in the network, expanding the network, and coordinating with regional agencies. The vast majority of streets and roadways in the plan area are not proposed to be redesigned during the lifespan of the proposed General Plan Update. The Mobility and Circulation Element focuses on targeted minor changes in select locations that will increase mobility, access and safety in the City. These include new bicycle and pedestrian facilities, raised colored and textured intersections, traffic-calming measures, and pedestrian bridges (see below). A notable exception to the general lack of circulation changes under the General Plan Update is the redesign of Los Alamitos Boulevard. Consistent with concepts explored in the Commercial Corridors Plan, the Mobility and Circulation Element proposes that the roadway be narrowed to create a more walkable downtown environment. Policies in the General Plan seek to redesign Los Alamitos Boulevard north of Katella Avenue to maintain four through lanes and turning movements at intersections while converting the remaining surplus space into an expanded parkway. Curb extensions would be installed at intersections to reduce crossing distance. On-street parking would be restricted north of Sausalito Street until after 9 AM to provide sufficient queuing space for vehicles turning right onto Cerritos to access the high school in the morning.

The complete streets network would accommodate all users of the system, and the City's complete streets network is based on the type of user. Specifically, the following policies demonstrate that the Mobility and Circulation Element addresses the needs of all users of the City's transportation network:

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.
- **Policy 1.5 Multimodal LOS** - Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.

The City's network is broken into three types of facilities—pedestrian, bicycle, and public transit. The proposed General Plan Update would support plans and programs for alternative transportation, as follows:

#### Bicycle Routes

Future bike routes and bike lanes are proposed on major arterials and collectors throughout Los Alamitos according to the OCTA Commuter Bikeways Strategic Plan. This plan identifies current bicycle facilities throughout the City and provides policy and implementation strategies for enhancing the networks. The plans are intended to be cohesive and integrated—a comprehensive pedestrian and bicycle system. The City proposes to enhance the bicycle network by providing additional on- and off-street bike lanes. In addition, several policies are included in the proposed General Plan to enhance bicycle connectivity:

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- **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.
- **Policy 3.2 Active trips** - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.
- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.
- **Policy 4.3 Intersections** - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.
- **Policy 4.4 Bicycle and pedestrian trails** - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.
- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.
- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.
- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.

#### Pedestrian Facilities

The pedestrian facilities and pedestrian connectivity throughout the City is well developed. However, there is a lack of connectivity in and around the downtown area and the adjacent medical center. In order to reduce congestion at major intersections and increase safety and access for the community's schoolchildren, the Mobility and Circulation Element includes pedestrian bridges across the City's major arterial roadways to connect schools with residential neighborhoods. Figure 5.11-3 shows conceptual locations for pedestrian/bicycle bridges at three locations:

- Katella Avenue west of Oak Street (connecting Rossmoor with Oak Middle School)
- Katella Avenue east of Bloomfield Street (connecting Apartment Row with Los Alamitos Elementary School, McAuliffe Middle School, and Laurel Park)
- Cerritos Avenue east of Los Alamitos Boulevard (connecting central Los Alamitos with Los Alamitos High School)

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The pedestrian bridges would increase safety and reduce congestion. In addition, Policies 4-2 through 4-6, Policies 1-1 through 1-2, and Policies 3.1 through 3-2, above, and the additional policies below of the proposed General Plan enhance pedestrian connectivity:

- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.
- **Policy 4.1 Walkable business districts** - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business districts.

### Public Transit

As discussed above, public transportation in the City of Los Alamitos consists of public bus service operated by OCTA. Implementation of the proposed General Plan Update would promote the use of alternative transportation modes. Policy 4-2 and the additional policies below promote the use of public transit:

- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.
- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.

### Summary

The Mobility and Circulation Element policies support public transit, bicycle improvements, and improvements to the pedestrian facilities by closing gaps in the network, expanding the network, and coordinating with regional agencies. They are also consistent with regional plans, such as the OCTA Commuter Bikeways Strategic Plan. Additionally, these policies support implementation of complete streets, through a layered network approach, consistent with the state's Complete Streets Act. Therefore, they are consistent with the existing adopted policies, plans and programs regarding public transit, bicycle, or pedestrian facilities.

## 5.11.4 Applicable General Plan Policies

### Mobility and Circulation Element

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.
- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.

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- **Policy 1.3 Downtown connectivity** - Downtown Los Alamitos shall be safely and comfortably accessible by car, by bike, or on foot while maintaining Los Alamitos Boulevard as a four-lane facility with sufficient space for turning movements and queuing space for school access.
- **Policy 1.4 Level of Service** - Maintain a Level of Service (LOS) “D” or better along all City arterials and at intersections during peak hours, with the following exceptions:
  - There is a desire to prioritize pedestrians and/or bicyclists over vehicles
  - Insufficient ROW exists
  - The intersection or roadway is considered built out

The following intersections and roadways are exempt from the LOS D standard:

- Katella Avenue and Los Alamitos Boulevard intersection
  - Katella Avenue and Walnut Street/Wallingsford Road intersection
  - Bloomfield Street and Cerritos Avenue intersection
  - Katella Avenue (between Interstate 605 and Walker Street)
  - Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard)
- **Policy 1.5 Multimodal LOS** - Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.
  - **Policy 1.6 Access management** - Minimize access points and curb cuts along arterials and within 200 feet of an intersection to improve traffic flow and safety. Eliminate and/or consolidate driveways when new development occurs or when traffic operation or safety warrants.
  - **Policy 1.7 Fair share of improvements** - Require new development to pay a fair share of needed transportation improvements based on a project’s impacts to the multimodal transportation network.
  - **Policy 2.1 Traffic calming** - Discourage cut-through traffic in residential neighborhoods through the application of traffic-calming measures.
  - **Policy 2.2 Joint Forces Training Base** - Coordinate with JFTB administration to provide additional vehicular access points from major arterials to minimize travel through residential areas.
  - **Policy 2.3 Truck routes** - Plan and designate truck routes that minimize truck traffic through or near residential areas.
  - **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.

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- **Policy 3.2 Active trips** - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.
- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.
- **Policy 4.1 Walkable business districts** - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business districts.
- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.
- **Policy 4.3 Intersections** - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.
- **Policy 4.4 Bicycle and pedestrian trails** - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.
- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.
- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.
- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.
- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.
- **Policy 5.1 Parking tools** - Support innovative parking techniques to maximize parking efficiency throughout the City, especially in the Downtown, including:
  - Shared parking
  - Unbundled parking
  - In-lieu parking fees
  - Parking management plans
  - Parking districts
- **Policy 5.2 Additions to existing uses** - As a component of remodeling where square footage is added, require commercial, business, and industrial centers to provide adequate on-site parking. (Note: This could have substantial impacts on small lots/businesses in Los Alamitos who may struggle to meet



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current parking standards. Additionally, should outdoor dining be included (and thus discouraged) or excluded and thus encouraged?)

- **Policy 5.3 Public facilities** - Provide adequate on-site parking at public facilities for daily and event-based activities, especially in the downtown and medical center areas.
- **Policy 5.4 Centralized parking** - Design and establish large parking facilities and parking management districts to connect to and serve multiple activity centers.
- **Policy 5.5 Automobile parking demand** - Reduce automobile parking demand by improving public transit, bicycle, and pedestrian mobility.
- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.
- **Policy 5.7 Motorcycle and scooter parking** - Motorcycle and scooter parking. Encourage businesses to provide parking spaces specifically designed for motorcycles and motorized scooters.

#### 5.11.5 Existing Regulations and Standard Conditions

##### State and Regional Regulations

- The California Complete Streets Act (Assembly Bill 1358)
- SB 375 Sustainable Communities and Climate Protection Act
- Orange County Transportation Authority (OCTA) Congestion Management Plan

##### City of Los Alamitos Municipal Code

- Los Alamitos Municipal Code, Chapter 10.20, Truck Routes and Weight Limits
- Los Alamitos Municipal Code, Chapter 10.24, Parking
- Los Alamitos, Municipal Code, Chapter 12.16, Section 12.16.030, Traffic Impact Fee

#### 5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.11-2 and 5.11-3.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.11-1** Buildout of the City of Los Alamitos General Plan Update plus cumulative growth in the region would generate an increase in traffic volumes that would impact levels of service at local area intersections and roadway segments.

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#### 5.11.7 Mitigation Measures

##### Impact 5.11-1

###### *Intersections*

The Transportation Study (see Appendix G to the DEIR) identifies several improvements to intersections. However, sufficient right-of-way is not available to implement the necessary mitigation. Furthermore, the General Plan Update identifies the need for a balanced multimodal transportation network that meets the needs of all users of streets. Policy 1.4 of the General Plan Update strives to strike a balance with all users of the transportation network. Given the policy desires of the City and constraints at these intersections, additional improvements are considered infeasible, and these improvements were considered but rejected.

- For the intersection of Los Alamitos Boulevard and Katella Avenue to operate at an acceptable level, an additional eastbound through-lane along Katella Avenue would be needed. Given the right-of-way constraints at this location, the improvement is considered infeasible.
- For the intersection of Bloomfield Street and Cerritos Avenue to operate at an acceptable level, an additional westbound left-turn lane and westbound right-turn lane would be required along Cerritos Avenue. The improvements would require additional right-of-way along the school district property frontage. Given the right-of-way constraints at this location, the improvement is considered infeasible.
- For the intersection of Wallingsford Road/ Walnut Street and Katella Avenue to operate at an acceptable level, the northbound approach of Wallingsford Road would need to be widened, and an additional eastbound through-lane is required along Katella Avenue. However, given the right-of-way constraints on the northbound and eastbound approaches, these improvements are considered infeasible.

###### *Segments*

The Transportation Study (see Appendix G to the DEIR) identifies several improvements to the segments. Katella Avenue and Cerritos Avenue are built out, and the required right-of-way to achieve acceptable operations is not readily available. Given the constraints at these two roadways, additional improvements are considered infeasible, and these improvements were considered but rejected.

#### 5.11.8 Level of Significance After Mitigation

##### Impact 5.11-1

Mitigation measures for the three intersections and two roadways are considered infeasible due to right-of-way constraints. Policy 1.4 of the General Plan Update identifies these intersections and roadways as “exempt”. Once the General Plan Update is adopted, these intersections and roadways would be exempt from the City’s LOS “D” standard. However, based on the current General Plan and the City’s current standards for these intersections and roadways, Impact 5.11-1 would be significant and unavoidable.

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### TRANSPORTATION AND TRAFFIC

#### 5.11.9 References

Fehr and Peers. 2014, May 15. City of Los Alamitos Transportation Study: Recommendations and Impact Assessment.

## 5. Environmental Analysis

### 5.12 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) addresses the potential for implementation of the City of Los Alamitos General Plan Update to impact utility and service systems in the City of Los Alamitos and its sphere of influence (SOI), that is, the community of Rossmoor, including water, wastewater, and solid waste services and systems.

#### 5.12.1 Wastewater Treatment and Collection

##### 5.12.1.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *Federal*

###### *Clean Water Act and National Pollution Elimination Discharge System*

Requirements for waste discharges from publicly owned treatment works to navigable waters are addressed in National Pollution Elimination Discharge System (NPDES) regulations under the Clean Water Act. NPDES permits for such discharges in the project region are issued by the Santa Ana Regional Water Quality Control Board.

##### Existing Conditions

###### *Sewers*

The Rossmoor/Los Alamitos Area Sewer District (R/LAASD) provides sewer service to the City and SOI, as shown in Figure 5.12-1, *Service Districts*. A small part of the City north of Spring Street along the northwest City boundary, mainly consisting of the Coyote Creek Channel, is outside the R/LAASD service area. R/LAASD sewers range from eight to 18 inches diameter (Boyle 2001).

R/LAASD sewers discharge via gravity into trunk sewers owned and maintained by the Orange County Sanitation District (OCSD), as shown in Figure 5.12-2, *Sewer Plan*. Two OCSD sewers extend north-south in Los Alamitos Boulevard; from Katella Avenue northward the two sewers separate, one extending through the northwest part of the City and the other east on Katella Avenue:

- **Los Alamitos Subtrunk sewer.** Follows Bloomfield Avenue, Cerritos Avenue, Oak Street, Katella Avenue, and Los Alamitos Boulevard
- **Westside Relief Interceptor.** Follows Lexington Drive, Katella Avenue, and Los Alamitos Boulevard

The Los Alamitos Subtrunk flows to the OCSD Westside Lift Station where it is pumped to the Seal Beach Boulevard Interceptor. OCSD sewers convey wastewater from the Lift Station to OCSD's Reclamation Plant No. 2 in Huntington Beach (Boyle 2001). There are three major sanitary sewer drainage areas within Los Alamitos.

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### UTILITIES AND SERVICE SYSTEMS

- **North Los Alamitos Sanitary Sewer Area.** This area is bounded by Katella Avenue to the south and Los Alamitos Boulevard to the east. Eight-inch diameter collectors drain in a southerly direction to a twelve-inch trunk along Los Alamitos Boulevard. Flow in this trunk is subsequently discharged to the Los Alamitos sub-trunk.
- **Katella Avenue Drainage Area.** This area follows Katella Avenue from Los Alamitos Boulevard east. Sewage flows in a westerly direction as 8-inch diameter collectors discharge into an existing 12-inch trunk line in Katella Avenue. Flow in this trunk line is diverted at several locations into the OCSD Westside Relief Interceptor.
- **Joint Forces Training Base.** This area includes the entire Joint Forces Training Base plus residential development east of Los Alamitos Boulevard. Sewage flows in a westerly direction. Eight-inch and ten-inch collectors discharge into the OCSD Westside Relief Interceptor in Los Alamitos Boulevard.

In 2001, R/LAASD completed a comprehensive Sewer System Management Plan. The plan, prepared by Boyle Engineering, projected a peak flow of approximately 8.6 million gallons per day (mgd) for the entire district, and found the sewer system to be generally capable of handling normal and peak sewer flows. As part of the required Sewer System Management Plan, a Sewer System Evaluation and Capacity Assurance Plan prepared by Psomas in 2005 also found that the district's existing collection system is capable of handling this flow without generating any significant problems. This finding is reinforced by the fact that the R/LAASD has not experienced any sanitary sewer overflows.

Furthermore, OCSD upgraded the Westside Pump Station in 2009 to address capacity issues with the pump station and to minimize future surcharge conditions. Additional OCSD improvements are also proposed for the trunk lines serving the Los Alamitos area, including 34,350 linear feet of replacement pipe for the Los Alamitos Sub-trunk and 32,100 linear feet of replacement for the Westside Relief Interceptor Pipeline along the eastern border of the City. There is no evidence of hydraulic deficiencies within the R/LAASD system that discharges into the OCSD trunk lines.

#### *Adjacent Sewer Systems*

There are three areas in Los Alamitos that are served by neighboring local sewer agencies or discharge into adjacent systems:

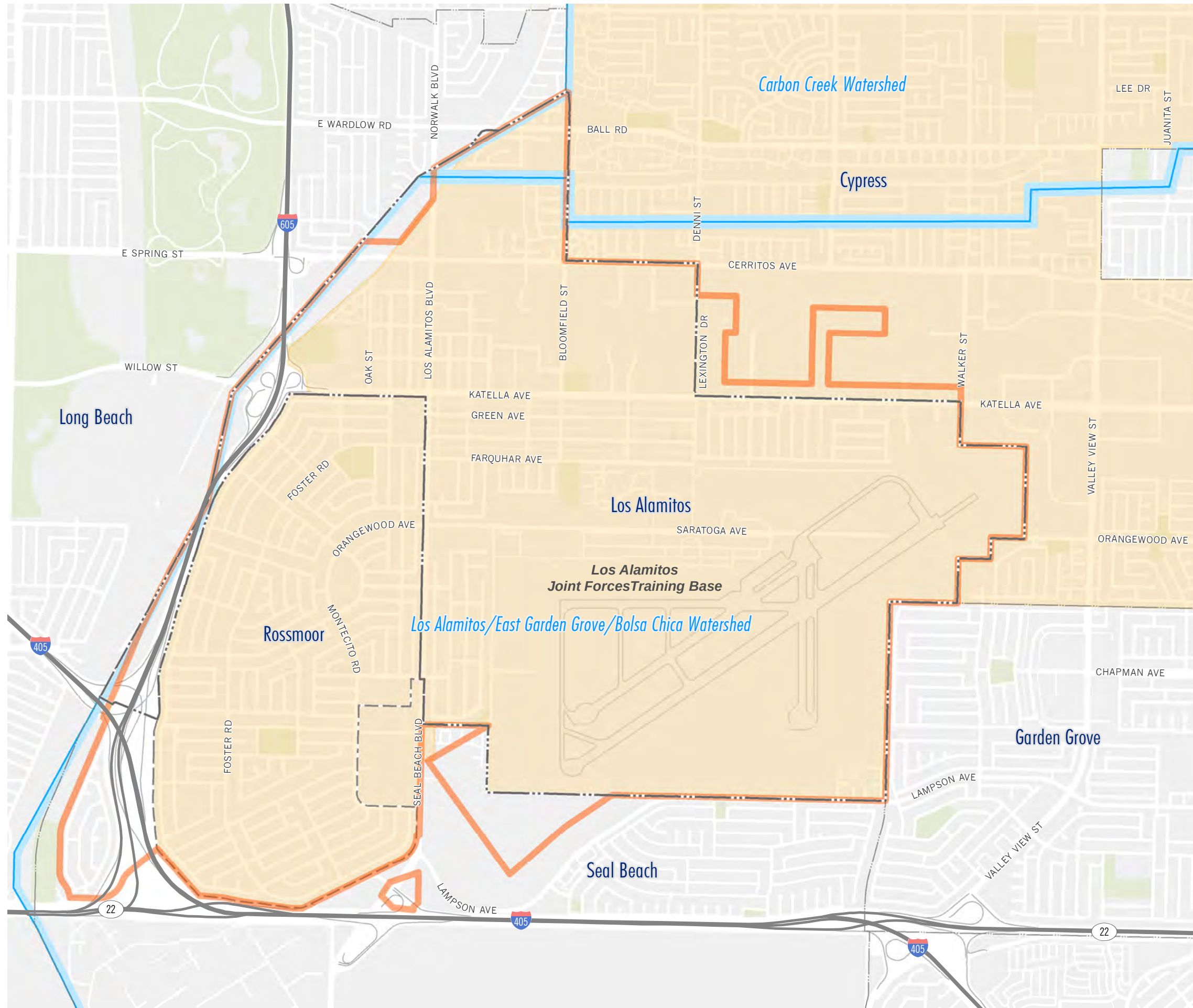
- **El Dorado Park Estates East and Bungalows.** The City of Long Beach Water Department provides sewer service for the El Dorado Park Estates East and Bungalows neighborhoods.
- **Country Square.** The Country Square neighborhood discharges north to Long Beach but connects to the OCSD trunk line in Bloomfield Street.
- **Parkwood.** The Parkwood neighborhood discharges south to the Seal Beach local collection system.

## 5. Environmental Analysis

**Figure 5.12-1 Service Districts**

-  City Boundary
-  Sphere of Influence
-  Other City Boundaries
-  Orange County Flood Control District (OCFCD)
-  Golden State Water Company (GSWC)
-  Rossmoor/Los Alamitos Area Sewer District (R/LAASD)\*

\*Note: The Orange County Flood Control District serves all of Orange County



Source:

6/19/2014

## 5. Environmental Analysis

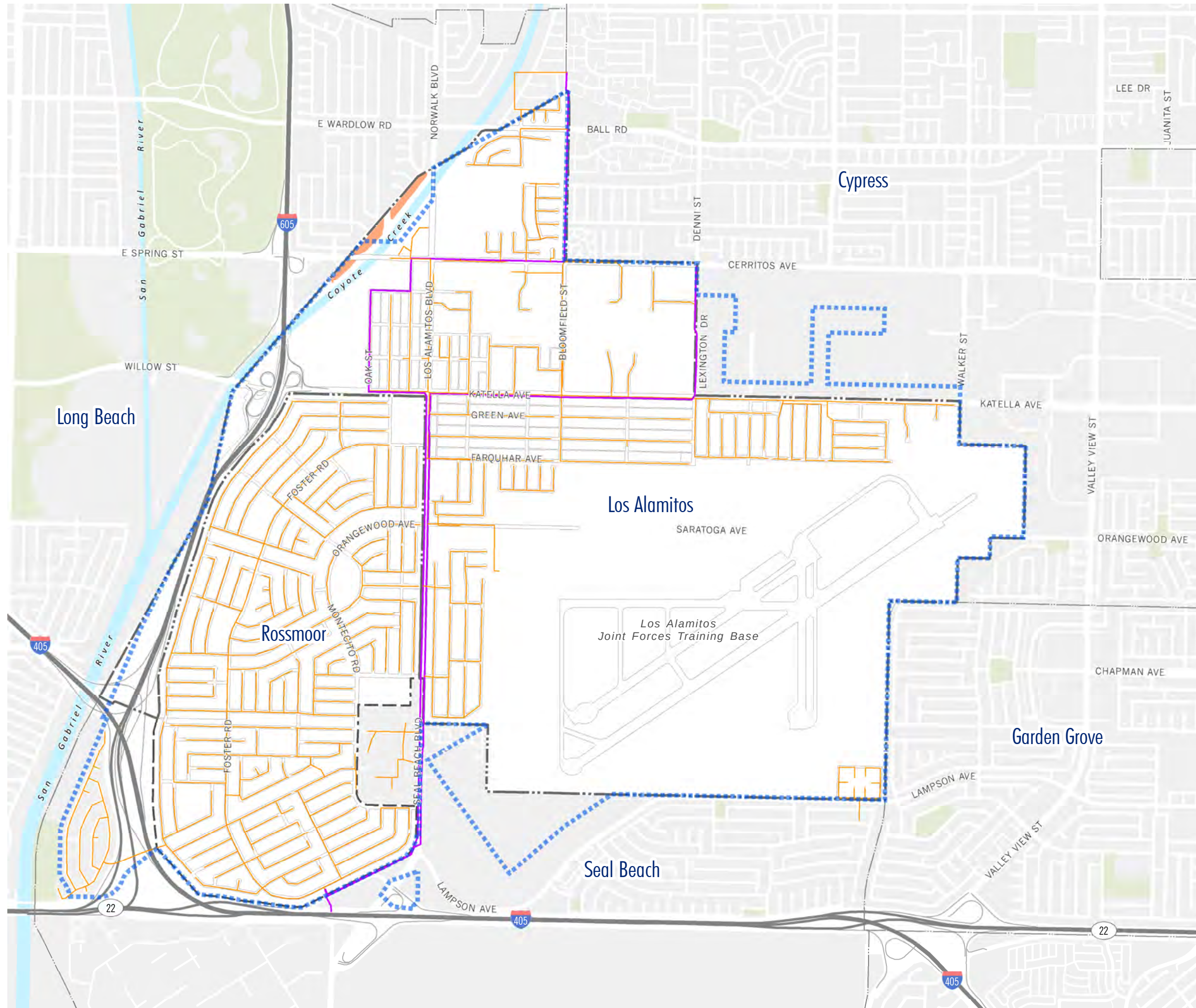
### UTILITIES AND SERVICE SYSTEMS

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## 5. Environmental Analysis

**Figure 5.12-2 Sewer Plan**



..... R/LAASD Boundary

Sewer Lines

—— OCSD Trunk

—— RLASD Sewer

Parcels server by Long Beach Water District

City Boundary

Sphere of Influence

Other City Boundaries



## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

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## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEM

#### *Wastewater Treatment*

Reclamation Plant No. 2 is adjacent to the Santa Ana River and approximately 1,500 feet from the Pacific Ocean in Huntington Beach. This plant provides a mix of advanced primary and secondary treatment. Primary treatment is the removal of solids using settling tanks, and secondary treatment is the reduction of organic matter using bacteria and oxygen, followed by further removal of solids. The plant receives raw wastewater through five major sewers, and discharges into the ocean disposal system through a 120-inch outfall at 200 feet below sea level and nearly five miles offshore. Current capacity for Reclamation Plant No. 2 is 168 mgd of primary treated wastewater and 150 mgd of secondary treated wastewater. The current average flow is 103 mgd, so remaining capacity at this plant is approximately 65 mgd (OCSD 2013).

#### *Estimated Wastewater Generation*

Assuming that indoor water use is 70 percent of all water use and all indoor use discharges into sewers, existing wastewater generation in the City and Rossmoor is approximately 2.3 mgd (see Section 5.12.2, *Water Supply and Distribution Systems*) (DWR 2010).

#### 5.12.1.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-1 Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- U-5 Would 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.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold U-1

This impact will not be addressed in the following analysis.

#### 5.12.1.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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### UTILITIES AND SERVICE SYSTEMS

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**Impact 5.12-1:** Buildout of the General Plan Update would generate an increase in wastewater, but additional generation could be adequately treated by the Orange County Sanitation District's existing wastewater treatment facilities. [Thresholds U-2 (part) and U-5]

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**Impact Analysis:** Assuming that 70 percent of water use is indoor use, and that 100 percent of that water is discharged into sewers, wastewater generation in the City and Rossmoor at General Plan buildout would be approximately 2.4 mgd. Wastewater generation would increase by 134,583 gallons per day compared to existing conditions.

#### Wastewater Treatment Capacity Impacts

The existing residual capacity at OCSD Reclamation Plant No. 2, which treats wastewater from the City and SOI, is about 65 mgd, far greater than the forecast net increase in wastewater generation due to the General Plan Update buildout. Wastewater generation by the General Plan Update buildout would not require OCSD to build new or expanded wastewater treatment facilities, and impacts would be less than significant.

#### Sewer Impacts

General Plan Update buildout would involve substantial land use intensification on only a handful of parcels. Incremental intensification could occur through small projects (e.g., adding a second dwelling unit or expanding a storefront) in some other locations in the City. Substantial intensification of land uses may require installation of new or expanded sewer laterals and installation of new or expanded sewer mains. Sewer mains are generally within roadways; thus, installation of new or expanded sewer mains would involve disturbance of soil that has been previously disturbed for construction of roadways and installation of existing utilities. Construction-related impacts from installation of sewer laterals and/or sewer mains would be part of the impacts of buildout of the entire General Plan Update analyzed throughout Chapter 5 of this DEIR. New development would be required to ensure that sufficient sewer capacity is available. No significant impacts would occur.

#### 5.12.1.4 APPLICABLE GENERAL PLAN UPDATE POLICIES

##### Public Facilities and Safety Element

- **Policy 1.2 Sewer system** - Work with the Rossmoor Los Alamitos Sewer District to maintain adequate and efficient sewage disposal services.

#### 5.12.1.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### Federal

- **Code of Federal Regulations Title 40 Parts 122 et seq.:** National Pollution Elimination Discharge System regulations

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#### 5.12.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.12-1 would be less than significant.

#### 5.12.1.7 MITIGATION MEASURES

No mitigation measures are required.

#### 5.12.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

### 5.12.2 Water Supply and Distribution Systems

#### 5.12.2.1 ENVIRONMENTAL SETTING

##### Regulatory Background

##### *20x2020 Water Conservation Plan*

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

##### *Senate Bills 610 and 221*

To assist water suppliers, cities, and counties in integrating water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers, cities, and counties. Both require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. This detailed information must be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. The statutes recognized local control and decision making regarding the availability of water for projects and the approval of projects. While SB 610 and SB 221 are not applicable to general plans, future projects subject to these statutes are required to provide a water supply assessment. Under SB 610, water supply assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects subject to CEQA, as defined in Water Code Section 10912[a], including this one. Under SB 221, approval by a city or

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### UTILITIES AND SERVICE SYSTEMS

county of certain types of residential subdivision requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe to ensure collaboration on finding the needed water supplies to serve a new large subdivision before construction begins. General plans serve as an important planning tool for the local water supply when they prepare the 20 year vision for the Urban Water Management Plan (UWMP).

#### *Urban Water Management Planning Act*

The Urban Water Management Planning Act of 1983, California Water Code Sections 10610 et seq., requires preparation of a plan that:

- Plans for water supply and assesses reliability of each source of water, over a 20-year period, in 5-year increments
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands in normal, single-dry, and multiple-dry years.
- Implements conservation and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions have been added by the Water Conservation Act of 2009 (SBX7-7), which amends the act and adds new water conservation provisions to the Water Code.

The Urban Water Management Planning Act states that every urban water supplier that provides water to 3,000 or more customers or provides over 3,000 acre-feet of water per year (afy) should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. Both SB 610 and SB 221 identify the UWMP as a planning document that can be used by a water supplier to meet the standards in both statutes. Thorough and complete UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes, and they are important source documents for cities and counties as they update their General Plans. Conversely, General Plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent (DWR 2014a).

#### *Principles Governing CEQA Analysis of Water Supply*

In *Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (February 1, 2007), the California Supreme Court articulated the following principles for analysis of future water supplies for projects subject to CEQA:

- To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.
- CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built.

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- CEQA analysis cannot rely on “paper water.” The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative.
- When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainty about the long-term water supply’s availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR’s approach.
- The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be “unworkable, as it would require water planning to far outpace land use planning.” The requisite degree of certainty of a project’s water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.
- The EIR analysis may rely on existing urban water management plans, as long as the project’s new demand was included in the water management plan’s future demand accounting.
- The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

### *Governor’s Drought Declaration*

California Governor Edmund Brown Jr. declared a drought state of emergency on January 17, 2014, asking Californians to reduce water use by 20 percent. 2013 was the driest year in recorded history in many parts of California. The extreme drought is continuing in 2014: statewide, between October 1 2013 and June 30 2014, precipitation was 50 percent of average, runoff was 35 percent of average, and reservoir storage 60 percent of average (DRW 2014b). The DWR announced on January 31, 2014, that if current dry conditions persist, customers would receive no deliveries from the State Water Project in 2014, except for small carryover amounts from 2013. Deliveries to agricultural districts with long-standing water rights in the Sacramento Valley may be cut 50 percent—the maximum permitted by contract—depending on future snow survey results. Almost all areas served by the SWP also have other sources of water, such as groundwater and local reservoirs (DWR 2014b).

The State Water Resources Control Board approved emergency regulation requiring water conservation in outdoor water use on July 15, 2014. The regulation prohibits washing down driveways and sidewalks; watering of outdoor landscapes that cause excess runoff; using a hose to wash a motor vehicle, unless the hose is fitted with a shut-off nozzle, and using potable water in a fountain or decorative water feature, unless the water is recirculated. Violators could be fined (SRWCB 2014).

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#### *City of Los Alamitos Municipal Code*

##### ***Chapter 13.04 Water Conservation***

Chapter 13.04 of the City's Municipal Code sets water waste prohibitions, including limitations on irrigation and other outdoor water uses; and requirements that water leaks be repaired. The section of the Municipal Code outlines conservation measures the City may take in the event of a drought. The City already requires water conservation measure such as restrictions on watering between 9:00 AM and 5:00 PM, automated watering between 6:00 AM and 8:00 PM, allowing irrigation water to run into the pavement, watering of more than 15 minutes in any zone (excluding drip irrigation), and restaurants serving water unless requested. In addition, to conservation measures that are in place in the City at all times, pursuant to the Municipal Code, the City may implement Stage 1, Stage 2, or Stage 3 conservation measures when it is notified by its water supplier that a drought or other condition of sufficient magnitude and duration exists that may warrant additional conservation. To declare a Stage 1, Stage 2, or Stage 3 drought conditions, the City Council would hold a regular or special meeting to review the status of the water supply in the City. The City's declaration of a Stage 1, Stage 2, or Stage 3 drought conditions is required to be made by public announcement and published three conservative times in a newspaper of general circulation in the City. The following describes additional measures during a Stage 1, Stage 2, or Stage 2 drought declaration:

- Stage 1 – water supplies are reduced to 10 percent or less.
  - Restaurants must use water conserving dish spray nozzles.
  - Ornamental lakes and ponds shall not be filled or refilled with potable water except to the extent needed to sustain aquatic life.
  - Outdoor irrigation of landscape with potable water will only be allowed three days a week.
  - Fix leaks within 72 hours.
- Stage 2 – water supplies are reduced between 10 and percent.
  - Outdoor irrigation of landscaping with potable water will only be allowed two days a week.
  - Fix leaks within 48 hours.
  - No filling of lakes/ponds.
  - Wash vehicles only at car wash system.
- Stage 3 – water supplies are reduced to 20 percent or more.
  - Potable water service will not be provided to new land development projects except under the following circumstances:
    - A valid building permit has been issued for the project, or
    - The project is necessary to protect public health, safety, and welfare, or

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- The application provides evidence that the project will not include conservation offsets prior to provision of new water service.

#### Existing Conditions

##### *Water Supplies*

The Golden State Water Company Orange County District West Orange System (GSWC), provides potable water to the City of Los Alamitos and community of Rossmoor. GWSC's service area includes the entire General Plan area plus most of the cities of Cypress and Stanton; small portions of the Cities of Seal Beach, Garden Grove, and La Palma; and adjacent unincorporated areas of Orange County. GSWC's distribution system includes 244 miles of water mains.

GSWC obtains water supplies from two sources: groundwater from the Main Orange County Groundwater Basin and treated surface water purchased from the Metropolitan Water District of Southern California (MWD). Groundwater is projected to make up about 62 percent of GSWC's supplies, and imported water 38 percent, from 2015 to 2035. Recycled water is currently not used in GWSC's service area, due to the economic infeasibility of installing a recycled water distribution system; no recycled water use is projected in Los Alamitos through 2035 (Kennedy-Jenks 2011).

- **Groundwater.** GSWC operates 16 active groundwater wells in the Main Orange County Groundwater Basin (Basin), which is managed by the Orange County Water District (OCWD). The Basin underlies much of western and central Orange County. OCWD regulates the amount of groundwater pumped from the Basin and sets the Basin Production Percentage (BPP) for all pumpers. The BPP for GSWC is anticipated to be 62 percent of the total water demands from 2015 to 2035. The 16 active wells have a total current capacity of 11,750 gallons per minute or 18,954 afy.<sup>1</sup>
- **Imported Water.** GWSC procures water from the Municipal Water District of Orange County (MWDOC), which obtains it from MWD, which imports water from northern California via the State Water Project (SWP) and from the Colorado River. Imported water was about 33 percent of GWSC's water supplies in 2010, and is estimated to constitute about 38 percent of GWSC's water supplies between 2015 and 2035.

In accordance with the Urban Water Management Planning Act, GSWC has prepared a 2010 Urban Water Management Plan, which projects that GSWC's water supply will increase by approximately 14 percent from 2010 to 2035 to meet associated project water demands, to be met by imported water from MWDOC and increased groundwater extractions. Existing and projected GSWC water supplies from 2010 through 2035 are shown below in Table 5.12-1, *GSWC West Orange System Projected Normal Year Water Supplies and Demands*. The UWMP also estimates that water supplies will be adequate to meet water demands in single-dry-year and multiple-dry-year conditions.

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<sup>1</sup> One acre-foot is about 325,851 gallons; 1 afy is about 0.62 gallons per minute.



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**Table 5-12-1 GSWC West Orange System Projected Normal Year Water Supplies and Demands**

| Source                     | Fiscal Year Ending (afy) |        |        |        |        |
|----------------------------|--------------------------|--------|--------|--------|--------|
|                            | 2015                     | 2020   | 2025   | 2030   | 2035   |
| Total Demands <sup>1</sup> | 18,496                   | 18,522 | 18,826 | 19,105 | 19,210 |
| Groundwater                | 11,533                   | 11,879 | 12,007 | 12,129 | 12,180 |
| Imported                   | 7,069                    | 7,281  | 7,359  | 7,434  | 7,465  |
| Total Supply               | 18,602                   | 19,160 | 19,366 | 19,562 | 19,645 |

Source: Kennedy-Jenks 2011

Note:

<sup>1</sup> Water demand projections are based on water conservation targets required under SBX7-7.

#### ***Water Treatment Facilities***

Water treatment facilities filter and/or disinfect water before it is delivered to customers. Imported water is treated by any of three MWD water filtration plants: the Joseph Jensen Plant in the Community of Granada Hills in the City of Los Angeles in Los Angeles County has a capacity of 750 mgd; the Robert Diemer Plant in the City of Yorba Linda in Orange County has a capacity of 520 mgd; and the F. E. Weymouth Plant in the City of La Verne in Los Angeles County has a capacity of 520 mgd (Kennedy-Jenks 2011; MWD 2013).

#### ***Water Storage***

GSWC has three reservoirs with a total capacity of 4.5 million gallons (Kennedy-Jenks 2011).

#### ***GSWC Water Demand***

In 2010, the total water demand in GSWC's service area was approximately 13,831 acre-feet (af), supplied by 5,027 af of imported water and 10,260 af of local groundwater. Total future demands for GSWC water is shown in Table 5.12-1.

The SBX7-7 water use baseline for GSWC is 151 gallons per capita per day (gpcd) and the 2020 compliance goal is 140 gpcd. Over the past few years, per-capita water use has declined for several reasons, including mild climatic conditions, economic recession, and a tiered residential pricing structure aimed at conservation. Per-capita water use has gone down 15 percent from 2008 (144 gpcd) to an estimated 122 gpcd in 2010. The GSWC currently satisfies its SBX7-7 goals and will focus on maintaining current water conservation.

#### ***Estimated Existing Water Demand in Los Alamitos***

Water demand in Los Alamitos is estimated based on the SBX7-7 water rates in GSWC's 2010 UWMP (see also Table 5.12-3). The City and Rossmoor have a current water demand of approximately 3.3 mgd, or approximately 3,657 afy. The estimated water use rate includes all water uses, including residential, commercial, industrial, and institutional uses, and landscape irrigation.

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#### Water Supply Reliability

##### Groundwater

GSWC can pump the BPP set annually by OCWD based on hydrologic conditions in the Basin, including groundwater levels and the amount of groundwater in storage. MWDOC has completed reliability analyses for each of the five-year projection periods from 2010 through 2035 for GSWC's groundwater supply and projects an average BPP of 62 percent. One of OCWD's water management goals in the Basin is to set the BPP as high as possible, while responsibly managing the groundwater supply. A high BPP reduces the demand on imported water supplies and offers pumpers a less expensive water supply alternative than imported water.

Five agencies, in addition to the pumpers, work cooperatively to ensure that a reliable water supply is available to be pumped by the pumpers in the Orange County Basin. These agencies are the OCWD, MWD, Water Replenishment District of Southern California (WRD), Los Angeles County Department of Public Works, and the OCSD. Current and planned projects designed to increase groundwater reliability in the Orange County Basin include seawater intrusion barriers, in-lieu groundwater replenishment, diverted surface-water flows recharged at spreading basins, and the groundwater replenishment system (GWRS), which involves the use of highly treated wastewater for groundwater recharge.

The MWD, in cooperation with MWDOC and OCWD, operates an in-lieu replenishment program in the Orange County Basin. When excess supplies and treatment capacity are available from the MWD, pumpers turn off their wells and receive MWD water instead of pumping groundwater. This program reduces the amount of water pumped from the Basin.

The Basin is intentionally recharged with surface water and stormwater from the Santa Ana River and Santiago Creek, imported water from northern California and the Colorado River, and recycled water. In addition, the Basin is naturally recharged from surrounding hills and mountains.

Groundwater recharge amounts from July 2011 to June 2012, and averages for the 10-year period from 2001-2002 to 2011-2012, are shown below in Table 5.12-2, *Main Orange County Groundwater Basin Recharge*.

**Table 5.12-2 Main Orange County Groundwater Basin Recharge**

| Source                      |                                                                           | 2011–2012 <sup>1</sup> | 10-Year Average, 2001–2002 to 2011–2012 |
|-----------------------------|---------------------------------------------------------------------------|------------------------|-----------------------------------------|
| Intentional Recharge (OCWD) | Surface Water (Santa Ana River base flow, Santiago Creek, and stormwater) | 129,285                | 184,122                                 |
|                             | Imported Water                                                            | 90,122                 | 67,819                                  |
|                             | Recycled Water <sup>2</sup>                                               | 72,258                 | 29,289                                  |
|                             | Subtotal                                                                  | 291,665                | 282,654                                 |
| Natural Recharge            | Incidental Recharge                                                       | 27,701                 | 64,966                                  |
| Total                       |                                                                           | 319,366                | 347,620                                 |

Source: OCWD 2013

<sup>1</sup> All years are from July to June

<sup>2</sup> The Groundwater Replenishment System (GWRS) began operating in 2008 and has capacity of 70 million gallons per day; recycled water from the GWRS was not available for most of the 2001-2012 period.

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#### *Future Water Supply Projects*

GWSC signed a letter of intent in 2009 to purchase up to 5,000 afy from the proposed Cadiz Valley Water Conservation, Recovery and Storage Project (Cadiz Project) in eastern San Bernardino County, California. The project is designed to capture and conserve—through an aquifer system beneath Cadiz’s property—thousands of acre-feet of native groundwater currently being lost to evaporation. By implementing established groundwater management practices, the project will create a new, sustainable annual water supply for project participants. In addition, the project offers storage capacity that can be used by participants to carry over—or “bank”—annual supplies without the high rates of evaporative loss suffered by local surface reservoirs. The Cadiz Project will produce up to 50,000 afy for fifty years. GSWC is one of five entities that have expressed an interest in receiving water from the project (Kennedy-Jenks 2011).

#### *Imported Water*

The Southern California region faces a challenge satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies. A number of significant factors affecting delivery reliability are discussed below. Major sources of uncertainty include Sacramento Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability to floods and earthquakes.

MWD’s 2010 Regional UWMP reports on its water reliability and identifies projected supplies to meet the long-term demand within its service area. It presents MWD’s supply capacities from 2015 through 2035: single dry year, multiple dry years, and average year.

- **Colorado River Aqueduct Supplies.** CRA supplies result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements to transfer water from agricultural agencies to urban uses. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 million af on an as-needed basis.
- **State Water Project Supplies.** MWD’s SWP supplies have been impacted in recent years by restrictions on SWP operations in accordance with the biological opinions of the US Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively. In dry, below-normal conditions, MWD has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. The goal of these programs is to develop additional dry-year supplies that can be conveyed through the available pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions. In June 2007, MWD’s Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable delta and reduce conflicts between water supply conveyance and the environment. The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Sacramento River Delta while a long-term solution is selected, and mid-term steps to maintain the Bay-Delta while the solution is implemented. State and federal resource agencies and various environmental and water user entities are currently

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engaged in the development of the Bay Delta Conservation Plan, which is aimed at addressing the basic elements, such as the restoration of the delta ecosystem, water supply conveyance, flood control protection, and storage development. In evaluating the supply capabilities for the 2010 Regional UWMP, MWD assumed that a new delta conveyance will be fully operational by 2022 that will return supply reliability similar to 2005 conditions, prior to supply restrictions.

- **Storage.** Storage is a major component of MWD's dry-year resource management strategy. MWD's likelihood of having adequate supply capability to meet projected demands, without implementing its water supply allocation plan (WSAP), is dependent on its storage resources. In developing the supply capabilities for the 2010 Regional UWMP, MWD assumed a simulated median storage level going into each of the five-year increments based on the balances of supplies and demands.
- **Supply Reliability.** MWD evaluated supply reliability by projecting supply and demand conditions for the single- and multiyear drought cases based on conditions affecting the SWP (MWD's largest and most variable supply). For this supply source, the single driest year was 1977 and the three-year dry period was 1990 through 1992. The analyses are illustrated in MWD's 2010 Regional UWMP, Tables 2-11, 2-9, and 2-10. These tables show that the region can provide reliable water supplies not only under normal conditions but also under the single driest year and the multiple dry year hydrologies.

#### *2013-2014 California Drought*

The current extreme drought in California is described above under *Regulatory Background*.

#### *Water Supplies Contingency Plan*

Recent water supply challenges throughout the Southwest and the State of California have resulted in the development of a number of policy actions that water agencies would implement in the event of a water shortage. In southern California, the development of such policies has occurred at both the wholesale and retail level. This section describes new and existing policies that MWD, MWDOC, and the City have in place to respond to water supply shortages, including a catastrophic interruption and up to a 50 percent reduction in water supply.

#### *Metropolitan Water District*

A number of water supply challenges have impacted the reliability of MWD's imported supplies. In response, MWD has implemented existing policies and developed new ones. MWD's first action in the event of a water shortage is the suspension and/or reduction of its interruptible supplies, which are supplies sold at a discount to buyers who agree to be the first cut back in the event of a shortage. MWD currently has two interruptible programs for agricultural users and groundwater replenishment, under which supplies were either suspended or reduced in 2007.

In addition, in preparation for the possibility of being unable to meet the "firm demands" (noninterruptible supplies) of its member agencies, in February 2008 the MWD's Board of Directors adopted the WSAP, which was updated in June 2009. MWD's plan includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. The WSAP is

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the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and is part of MWD's 2010 Regional UWMP.

The WSAP was developed in consideration of the principles and guidelines described in MWD's 1999 water surplus and drought management plan (WSDM), with the objective of creating an equitable needs-based allocation. The plan's formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of up to 50 percent. The formula takes into account impacts on retail customers and the economy, growth and population, changes in supply conditions, investments in local resources, implementation of conservation programs, participation in MWD's interruptible programs, and investments in facilities.

#### *MWDOC*

To prepare for the potential allocation of imported water supplies from MWD, MWDOC worked collaboratively with its 28 member agencies to develop its own WSAP, adopted January 2009, to allocate imported water supplies at the retail level. The MWDOC WSAP lays out the essential components of how MWDOC will determine and implement each member agency's allocation during a time of shortage. The MWDOC WSAP uses a similar method and approach, when reasonable, as WSAP. However, MWDOC's plan remains flexible to use an alternative approach if MWD's method produces a significant unintended result for the member agencies.

#### *Catastrophic Supply Interruption*

Given the great distances that imported supplies travel to reach Orange County, the region is vulnerable to interruptions along hundreds of miles of aqueducts, pipelines, and other facilities. Additionally, this water is distributed to customers through an intricate network of pipes and water mains that are susceptible to damage from earthquakes and other disasters.

- **Metropolitan Water District.** MWD has comprehensive plans for stages of actions it would undertake through its WSDM and WSAP plans to address a catastrophic interruption in water supplies. MWD also developed an emergency storage requirement to mitigate a potential interruption in water supplies resulting from catastrophes in southern California, such as seismic events along the San Andreas Fault. Under the requirement, the City must maintain seven days' worth of water supply in storage. In addition, MWD is working with the state to implement a comprehensive improvement plan to address catastrophes outside the southern California region, such as a large earthquake in the Sacramento River Delta that would cause levee failure and disrupt SWP deliveries. For greater detail on MWD's planned responses to catastrophic interruption, please refer to MWD's Regional UWMP.
- **Water Emergency Response Organization of Orange County.** In 1983, the Orange County water community identified a need to develop a plan for how agencies would respond effectively to disasters impacting the regional water distribution system. The collective efforts of these agencies resulted in the formation of the Water Emergency Response Organization of Orange County (WEROC) to coordinate emergency response on behalf of all Orange County water and wastewater agencies, develop an emergency plan to respond to disasters, and conduct disaster training exercises for the Orange County

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water community. WEROC was established with the creation of an indemnification agreement between its member agencies to protect each other against civil liabilities and to facilitate the exchange of resources. WEROC is unique in its ability to provide a single point of contact for representation of all water and wastewater utilities in Orange County during a disaster. This representation is to the county, state, and federal disaster coordination agencies. In the Orange County Operational Area, WEROC is the recognized contact for emergency response for the water community.

### 5.12.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

### 5.12.2.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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Impact 5.12-2: The General Plan Update would increase water demand by 192,262 gallons per day; however, the Golden State Water Company's water supply and delivery systems are adequate to meet the water demands of project in addition to its other service obligations. [Thresholds U-2 (part) and U-4]

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#### *Impact Analysis:*

#### **Forecast Water Demand by General Plan Buildout**

Water demand is estimated using the water demand SBX7-7 rates identified in GSWC's 2010 UWMP. As identified in Table 5.12-3, *Forecast Water Demands by General Plan Buildout*, the General Plan Update would result in an increase in 192,262 gallons per day or 215 afy. The forecast net increase in water demands due to General Plan buildout is well within the forecast increase in GSWC water supplies from 2015 to 2035 (1,043 afy). While California currently faces very severe drought conditions, GSWC forecasts that it will have adequate water supplies to meet demands in single-dry-year and multiple-dry-year conditions from 2015 through 2035. Water demand due to General Plan buildout would not require GSWC to obtain new or increased water supplies, and impacts would be less than significant.

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**Table 5.12-3 Forecast Water Demands by General Plan Buildout**

| Area                     | Existing (2013)       |                                        |                      | General Plan Buildout |                                        |                      | Change<br>Gallons/Day |
|--------------------------|-----------------------|----------------------------------------|----------------------|-----------------------|----------------------------------------|----------------------|-----------------------|
|                          | Service<br>Population | Water Demand                           |                      | Service<br>Population | Water Demand                           |                      |                       |
|                          |                       | Gallons Per<br>SP Per day <sup>1</sup> | Total<br>Gallons/Day |                       | Gallons Per SP<br>Per day <sup>1</sup> | Total<br>Gallons/Day |                       |
| City of Los<br>Alamitos  | 25,649                | 90                                     | 2,307,914            | 30,485                | 83                                     | 2,543,235            | 235,321               |
| Community of<br>Rossmoor | 10,629                | 90                                     | 956,404              | 10,948                | 83                                     | 913,345              | -43,059               |
| Total                    | 36,278                | 90                                     | 3,264,318            | 41,433                | 83                                     | 3,456,580            | 192,262               |

Source: Kennedy-Jenks 2011

Note: SP: service population

<sup>1</sup> Estimated water demand is based on the gallons per SP per day derived from the SBX7-7 gallons per capita per day (gpcd) rates identified by GSWC in the 2010 UWMP for 2010 and 2020. Service population is defined as residents plus employees, whereas per capita accounts for only the population in the City. The existing water use is identified as 151 gpcd, which equates to 90 gallons per SP per day. SBX7-7 requires a 20 percent reduction in urban per capita water use by 2020. The future water use is identified as 140 gpcd, which equates to 83 gallons per SP per day.

### Water Treatment Facilities

The three MWD water treatment facilities supplying water to GSWC have total capacity of 1.79 billion gallons per day, vastly greater than the projected net increase in water demands due to General Plan Update buildout. Water demands resulting from General Plan Update buildout in addition to demand from growth within the GSWC service area would not require construction of new or expanded water treatment facilities even when other water users are taken into account as the water treatment capacity is nearly 10,000 times the net increase in project water demands for Los Alamitos.

### Water Conveyance

General Plan Update buildout would involve substantial land use intensification on only a handful of parcels. Incremental intensification could occur through small projects (e.g., adding a second dwelling unit or expanding a storefront) in some other locations in the City. Substantial intensification of land uses would probably require installation of new or expanded water laterals and could require installation of new or expanded water mains. Water mains are generally within roadways; thus, installation of new or expanded water mains would involve disturbance of soil that has been previously disturbed for construction of roadways and installation of existing utilities. Construction-related impacts from installation of water laterals and/or water mains would be part of the impacts of buildout of the entire General Plan Update analyzed throughout Chapter 5 of this DEIR. New development would be required to ensure that sufficient water facilities are available to meet the City and Fire Code requirements. No significant impacts would occur.

#### 5.12.2.4 APPLICABLE GENERAL PLAN POLICIES

#### Open Space, Recreation, and Conservation Element

- **Policy 3.1 Native plants** - Require the use of native and climate-appropriate plant species, and prohibit the use of plant species known to be invasive.

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- **Policy 4.5 Energy and water conservation** - Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.
- **Policy 4.6 Irrigation** - Encourage the use of water-efficient irrigation systems and reclaimed water for irrigation.

### Public Facilities and Safety Element

- **Policy 1.1 Water quality and supply** - Work with Golden State Water Company to maintain high water quality and ensure adequate water supply for personal use, landscaping, and fire protection.
- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.

#### 5.12.2.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### State

- California Water Code Sections 10610 et seq.: Urban Water Management Planning Act
- California Water Code Sections 10800 et seq. and 10608 et seq.: Water Conservation Act of 2009 (SBX7-7)
- Chapter 642, Statutes of 2001: Senate Bill 221: Land Use and Water Supplies
- Chapter 643, Statutes of 2001: Senate Bill 610: Water Supply Planning

##### City of Los Alamitos Municipal Code

- Chapter 13.04: Water Conservation
- Chapter 13.05: Water Efficient Landscaping

#### 5.12.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.12-2 would be less than significant.

#### 5.12.2.7 MITIGATION MEASURES

No mitigation measures are required.

#### 5.12.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.



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#### 5.12.3 Storm Drainage Systems

##### 5.12.3.1 ENVIRONMENTAL SETTING

###### Regulatory Background

###### *County of Orange Municipal Stormwater Permit, Drainage Area Management Plan, and Local Implementation Plans*

In May 2009, the Regional Water Quality Control Board (RWQCB) reissued the North Orange County MS4 Stormwater Permit as Waste Discharge Requirement Order R8-2009-0030, NPDES Permit No. CAS618030, to the County of Orange, the incorporated cities in Orange County, and the Orange County Flood Control District (OCFCD) within the Santa Ana Region. Pursuant to this “Fourth-Term” MS4 permit, the co-permittees were required to develop and implement a drainage area management plan (DAMP) for their jurisdictions and local implementation plans (LIPs) that describe the urban runoff management programs for their local jurisdictions, such as the City of Los Alamitos.

Under the City’s LIP, land development policies pertaining to hydromodification and low-impact development (LID) are regulated for new developments and significant redevelopment projects. “Hydromodification” is the changes in runoff characteristics from a watershed caused by changes in land-use conditions. More specifically, hydromodification is “the change in the natural watershed hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow, and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport.” The use of LID best management practices (BMPs) in project planning and design is to preserve a site’s predevelopment hydrology by minimizing the loss of natural hydrologic processes such as infiltration, evaporation, and runoff detention. LID BMPs try to offset these losses by introducing structural and nonstructural design components that restore these water quality functions into a project’s land plan. These requirements are detailed in the countywide Model Water Quality Management Plan (WQMP) and Technical Guidance Document, which the City approved in May 2011..

###### *City of Los Alamitos Municipal Code*

City Municipal Code requirements for drainage and stormwater quality protection are set forth in Chapter 8.44, *Stormwater and Urban Runoff Pollution Controls*. New development projects, and redevelopment projects adding 5,000 square feet of impervious surface to an already-developed site, must prepare and implement Water Quality Management Plans (WQMPs) specifying Best Management Practices for minimizing stormwater pollution pursuant to the DAMP and the City’s LIP.

###### Existing Conditions

###### *Watershed*

The City and SOI are in the Los Alamitos/East Garden Grove/Bolsa Chica Watershed, which spans the south half of the west end of Orange County. The overall direction of drainage in the watershed is southwest toward Bolsa Bay, Huntington Harbor, and Anaheim Bay. The three primary drainage channels in

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the watershed are, from west to east, the Bolsa Chica Channel, Anaheim-Barber City Channel, and East Garden Grove Wintersburg Channel.

#### *Drainage Facilities*

Drainage facilities in Los Alamitos and Rossmoor consist of storm drains owned by the City—and in Rossmoor by the county—and drainage channels and storm drains owned by the OCFCD and maintained by OC Public Works. These agencies maintain flood control facilities to prevent or minimize loss of life and property caused by flooding.

#### *Local Drainage Patterns*

Local drainage patterns and facilities consist primarily of surface runoff intercepted by open channels and underground pipe systems. The City maintains the following facilities.

- **Streets.** Streets are the primary facility for conveying stormwater on City-owned land. The majority of streets were constructed in the 1950s and 1960s, when a slope from 0.15 to 0.25 percent was considered adequate. Most city streets are inadequately sloped to convey runoff in compliance with current drainage standards (minimum slope of 0.50 percent).
- **City Storm Drain and Open Channel Facilities.** City streets also route stormwater runoff to catch basins that lead to storm drains or open channels. Approximately 80 catch basins throughout the City's two-square-mile watershed intercept most of the local runoff for storm drain and open channel facilities. Since most of the catch basins and storm drain systems were constructed in the 1950s and '60s, and they do not meet current design standards for conveyance of the 10-, 25-, and 100-year storm events. Additionally, the number of catch basins is inadequate based on current standards, which require storm drain interception for every 1,000 feet of cumulative roadway length. Significant local storm drain facilities owned and maintained by the City include:
  - Rossmoor Highlands open channel (with east to west drainage).
  - Katella Avenue drain (a regional drain with east to west drainage).
  - Cerritos Avenue drain (east to west drainage).
- **Pump Station.** The City owns and maintains a pump station at the cul-de-sac of Fenley Drive in the College Park North area. The facilities are for the purpose of pumping local stormwater in areas that are geographically depressed that prohibit gravity flow designed systems.

#### *OCFCD/Orange County Public Works*

Flood control facilities in Rossmoor are the responsibility of the OCFCD, which are maintained by the Orange County Public Works Department.

- **Streets.** The majority of streets in Rossmoor were also constructed based on standards from the 1950s and '60s and are inadequately sloped to convey runoff in efficiently enough to comply with current drainage standards.

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- **County Storm Drain and Open Channel Facilities.** The following drainage channels and storm drains are part of OCFCD's regional flood control system (see Figure 5.12-3, *Stormwater Plan*).
  - ***Carbon Creek Channel (OCFCD Facility B01)*** extends east–west through the north end of the City, discharging into Coyote Creek Channel near the western City boundary. In the City, Carbon Creek is a concrete trapezoidal channel 17 feet deep with base widths ranging from 28 to 33 feet.
  - ***Los Alamitos Channel (OCFCD Facility C01)*** extends north–south near the western City boundary and just east of Coyote Creek Channel and the San Gabriel River. Los Alamitos Channel discharges into the Los Alamitos Retarding Basin in the City of Seal Beach south of Westminster Avenue and west of Seal Beach Boulevard. The Los Alamitos Retarding Basin discharges into the San Gabriel River via storm drain pipes. All of the channels in the City and Rossmoor listed below discharge into Los Alamitos Channel. Immediately north of 7th Street (State Route 22) in the City of Long Beach, Los Alamitos Channel is a concrete trapezoidal channel that is 14 feet high with an 11.5-foot-wide base.
  - ***Rossmoor Storm Channel (OCFCD Facilities C01S01–04)***, a trapezoidal concrete channel that is 5.5 feet high with a 5-foot-wide base, extends east to west from the northeast part of the Joint Forces Training Base to Los Alamitos Channel in Rossmoor near Coleridge Drive.
  - ***Katella Storm Channel (OCFCD Facility C01S05)*** is a reinforced concrete box storm drain, 12 feet wide by 8 feet high, in Katella Avenue from Los Alamitos Boulevard west to the Los Alamitos Channel.
  - ***Bloomfield Storm Channel (OCFCD Facility C01P02)*** is a 72-inch reinforced concrete pipe that ties directly into the City storm drain system in Katella Ave and ultimately ties into the OCFCD Katella facility (OCFCD 2007a; OCFCD 2007b; OCFCD 2007c).

#### ***Multi-Jurisdictional Facilities***

The City and Rossmoor are also served by a larger, multi-jurisdictional regional flood control network that discharges the majority of its stormwater runoff into the San Gabriel River. The Los Angeles County Flood Control District, through the Los Angeles County Department of Public Works, maintains the San Gabriel River and Coyote Creek flood control facilities adjacent to the City and Rossmoor.

#### ***Flood Zones***

The following waterways in the City and SOI are mapped as 100-year flood zones by the Federal Emergency Management Agency (FEMA):

- Coyote Creek Channel along the northwest City boundary
- Los Alamitos Channel in the southwest part of the City (west of Rossmoor)

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- Bixby Storm Channel, a tributary of the Montecito Storm Channel, along the south boundary of Rossmoor.

As shown in Figure 5.12-4, *Flood Zones*, portions of the northeastern part of the City are mapped as 500-year flood zones by FEMA (FEMA 2013).

### 5.12.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-3 Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

### 5.12.3.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.12-3:** New development under the General Plan Update would be required to ensure that the storm drainage systems would retain any increase in stormwater flow onsite and would be adequate to serve the drainage requirements of the proposed project. [Threshold U-3]

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**Impact Analysis:** The General Plan Update would involve land use intensification on a handful of parcels, which could increase stormwater flow to the City's drainage system.

Localized flooding has occurred at several locations throughout the city, including areas along Portal Drive, Cherry Street, and Serpentine Drive; at low points along Katella Avenue; and along Kempton Drive in the southern portion of the City. This flooding is due primarily to streets with limited slope and an insufficient number of catch basins and inlets. In addition, a significant portion of the existing storm drain system was designed and implemented under older, less stringent flood control design standards. Recent storms have resulted in minimal damage to property and no loss of life, indicating that the existing system provides a minimal level of protection. To upgrade the entire system to the current design standards is cost prohibitive, and improvements made after 1996 have incorporated the updated design standards and would continue to be implemented with the following County of Orange design standards. The General Plan Update includes the following policies to ensure that no significant impacts would occur:

#### ***Public Facilities and Safety Element***

- **Policy 1.3 Stormwater drainage** - Coordinate with regional flood control agencies to protect residents and businesses from flood hazards, upgrading existing facilities to current standards whenever financially feasible.
- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.

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Incremental intensification could occur through small projects (e.g., adding a second dwelling unit or expanding a storefront) in some other locations in the City. The net increases in impervious areas and runoff would be minor compared to the total existing impervious area and amount of runoff. General Plan Update buildout could require replacement of undersized storm drain inlets in a few locations near parcels where land use would be substantially intensified. Replacement storm drain inlets would be installed in the sides of roadways or in parking lots. In addition, new development would be required to retain the increase in stormwater flows onsite to ensure that there would be no net increase in stormwater flows to the City's existing drainage system. No significant impact would occur.

#### 5.12.3.4 APPLICABLE GENERAL PLAN POLICIES IMPACTS

##### Open Space, Recreation, and Conservation Element

- **Policy 4.7 Stormwater pollution** - Minimize non-point source pollutants and stormwater runoff.
- **Policy 4.8 Stormwater management** - Encourage the use of low impact development techniques that retain or mimic natural features for stormwater management.

##### Public Facilities and Safety Element

- **Policy 1.3 Stormwater drainage** - Coordinate with regional flood control agencies to protect residents and businesses from flood hazards, upgrading existing facilities to current standards whenever financially feasible.
- **Policy 1.4 New development** - New development shall pay its fair share of public facility and infrastructure improvements.
- **Policy 3.1 Flood zone** - Ensure that flood control facilities continue to be designed and maintained so that no land is in a 100-year flood zone [Exception is provided for the JFTB, which is on federal land and within an undetermined risk area.].

#### 5.12.3.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

#### 5.12.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.12-3 would be less than significant.

#### 5.12.3.7 MITIGATION MEASURES

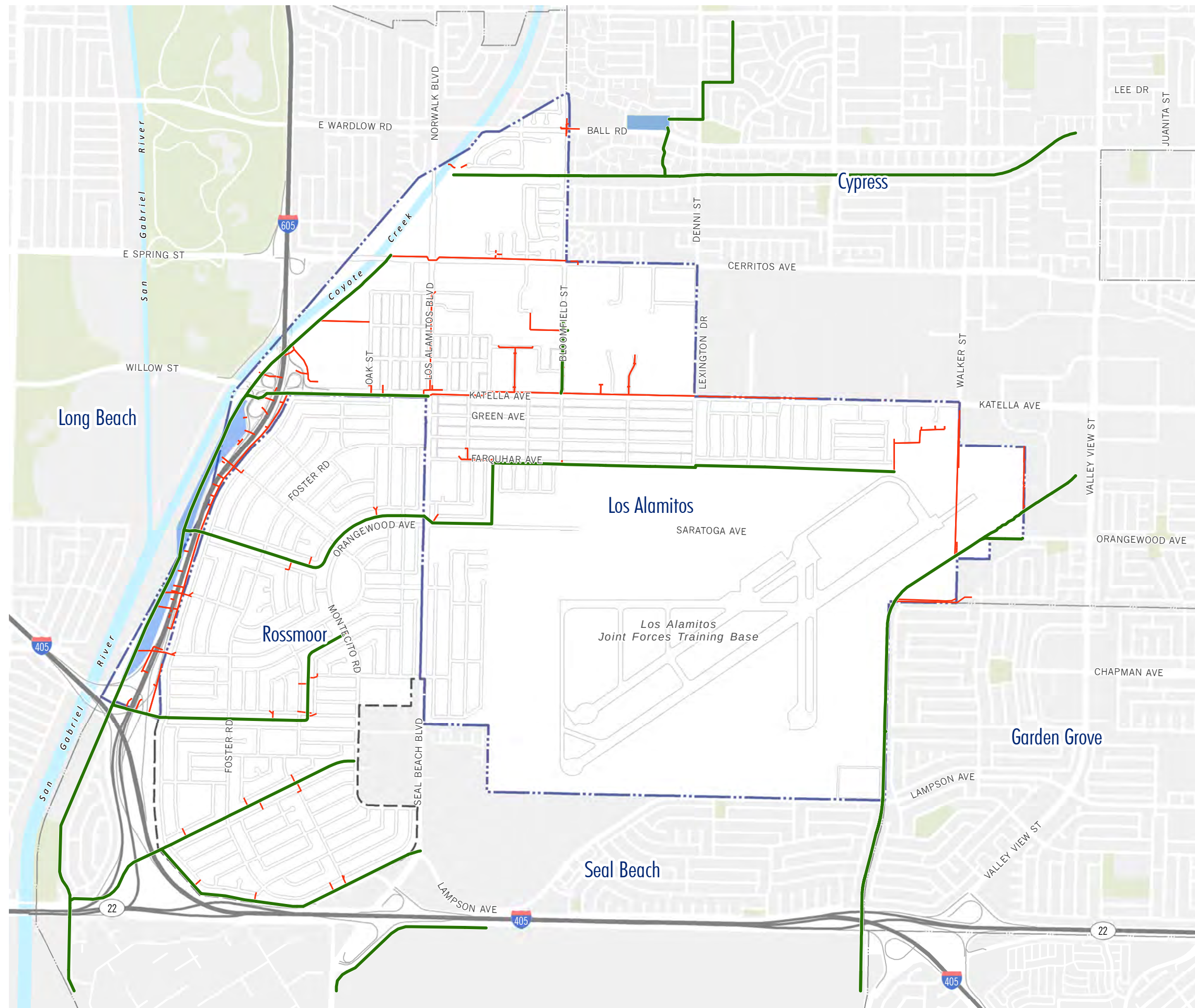
No mitigation measures are required.

#### 5.12.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

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**Figure 5.12-3 Stormwater Plan**



- OCFC Facility
- Local Facility
- Flood Control Basin
- City Boundary
- Sphere of Influence
- Other City Boundaries

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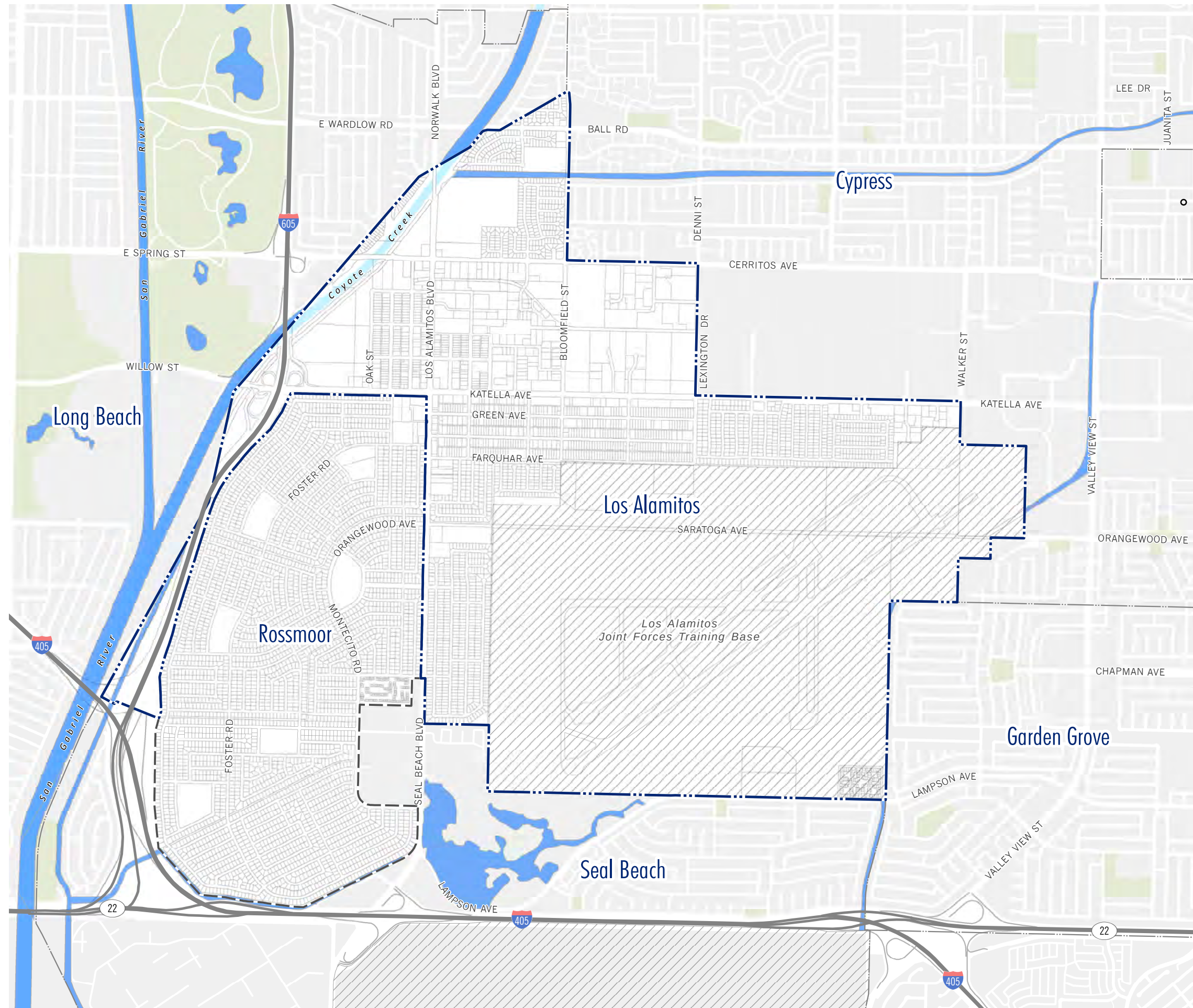
### UTILITIES AND SERVICE SYSTEMS

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Figure 5.12-4 Flood Zones





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### 5.12.4 Solid Waste

#### 5.12.4.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *State*

###### ***California Integrated Waste Management Act***

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020; and requires recycling of waste from commercial and multifamily residential land uses.

###### ***California Solid Waste Reuse and Recycling Act of 1991***

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code Sections 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

###### ***California Green Building Standards Code***

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

###### ***City of Los Alamitos Municipal Code***

Section 17.16.110 describes development standards for solid waste and recyclable materials storage areas in new development projects. Chapter 8.12, Integrated Waste Management, sets requirements governing storage and collection of solid waste and recyclable materials.

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#### Existing Conditions

##### *Solid Waste Collection*

Consolidated Disposal collects solid waste in Los Alamitos under contract with the City. In 2012, the latest year for which data are available, 16,004 tons of solid waste and 827 tons of alternative daily cover<sup>2</sup> from the City were landfilled (CalRecycle 2014a).

##### *Landfills*

In 2012 about 95 percent of the solid waste landfilled from the City of Los Alamitos was disposed of at the Frank R. Bowerman Sanitary Landfill in the City of Irvine and the Olinda Alpha Sanitary Landfill near the City of Brea; both facilities are operated by OC Waste and Recycling. The two landfills are described in Table 5.12-4, *OC Waste and Recycling Landfill Capacities*.

**Table 5.12-4 OC Waste and Recycling Landfill Capacities**

| Landfill          | Location                                         | Remaining Capacity <sup>1</sup><br>(cubic yards) | Estimated Closure Date | Maximum Daily Permitted Tonnage | Actual Average Daily Disposal, tons <sup>2</sup> | Residual Disposal Capacity, tons per day |
|-------------------|--------------------------------------------------|--------------------------------------------------|------------------------|---------------------------------|--------------------------------------------------|------------------------------------------|
| Frank R. Bowerman | 11002 Bee Canyon Access Road<br>Irvine, CA 92602 | 205,000,000                                      | 2053                   | 11,500                          | 4,827                                            | 6,673                                    |
| Olinda Alpha      | 1942 North Valencia Avenue<br>Brea, CA 92823     | 38,578,383                                       | 2021                   | 8,000                           | 5,210                                            | 2,790                                    |
| <b>Total</b>      |                                                  | <b>243,578,383</b>                               | <b>Not Applicable</b>  | <b>19,500</b>                   | <b>10,037</b>                                    | <b>9,463</b>                             |

Sources: CalRecycle 2014b; CalRecycle 2014c; CalRecycle 2014d

<sup>1</sup> Remaining capacity as of June 30, 2013.

<sup>2</sup> Average daily disposal is calculated from total annual disposal in 2012; each landfill is open six days per week (assumed to be 300 days per year after deducting holidays).

Both landfills are required to comply with existing landfill regulations from federal, state, and local regulatory agencies. They are subject to regular inspections from CalRecycle and the Local Enforcement Agency, the RWQCB, and the South Coast Air Quality Management District.

##### *Solid Waste Diversion and Recycling*

There are 32 solid-waste diversion programs in the City of Los Alamitos, including those for composting, household hazardous waste collection, public education programs, recycling, source reduction at businesses and schools, and special waste materials such as tires and concrete/asphalt/rubble (CalRecycle 2014e).

Compliance with the diversion requirement in AB 939 is measured in part by comparing actual disposal rates with target disposal rates; disposal rates at or below target rates are consistent with AB 939. For 2012, the

<sup>2</sup> Alternative daily cover means cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging.

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latest year for which data are available, the target disposal rates for Los Alamitos were 10.8 pounds per day (ppd) per resident, and 9.3 ppd per employee. Actual disposal rates in 2012—4.7 ppd per resident and 4.0 ppd per employee—were below target rates and thus were consistent with AB 939 (CalRecycle 2014e).

#### 5.12.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

#### 5.12.4.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

**Impact 5.12-4:** The General Plan Update would result in an increase in 3,723 tons per year of solid waste disposal; however, solid waste haulers and landfills would be able to accommodate project-generated solid waste while complying with related solid waste regulations. [Thresholds U-6 and U-7]

**Impact Analysis:** As shown below in Table 5.12-5, *Forecast Net Increase in Solid Waste Generation*, the General Plan Update would result in an increase of 3,723 tons per year (approximately 10.2 tons per day).

**Table 5.12-5 Los Alamitos and Rossmoor Solid Waste Generation**

| Waste Type                    | Existing (2013) Disposal (Tons/Year) |              |                 | General Plan Buildout Disposal (Tons/Year) |              |                 | Increase (Tons/Year) |
|-------------------------------|--------------------------------------|--------------|-----------------|--------------------------------------------|--------------|-----------------|----------------------|
|                               | City                                 | Rossmoor     | City + Rossmoor | City                                       | Rossmoor     | City + Rossmoor |                      |
| Waste Generation              | 17,580                               | 7,285        | 24,865          | 20,894                                     | 7,504        | 28,398          | 3,533                |
| Alternative Daily Cover (ADC) | 944                                  | 391          | 1,335           | 1,122                                      | 403          | 1,525           | 190                  |
| <b>Total Waste Disposal</b>   | <b>18,524</b>                        | <b>7,676</b> | <b>26,200</b>   | <b>22,016</b>                              | <b>7,907</b> | <b>29,923</b>   | <b>3,723</b>         |

Source: CalRecycle 2014.

Notes:

Existing is waste disposal is based on an average 2010-2012 disposal rates identified by CalRecycle for the City of Los Alamitos and adjusted for the service population (residents plus employees) in Rossmoor. The increase in waste disposal is estimated based on the increase waste disposal for the additional service population.

Estimated solid waste generation per service population is 0.69 tons per year, that is, 3.8 pounds per day.

Estimated alternative daily cover generation per service population is 0.04 tons per year, i.e., 0.2 pound per day.

The two landfills accepting the great majority of landfilled solid waste from Los Alamitos have total remaining capacity of over 243,500,000 cubic yards—over 182,600,000 tons—and combined residual daily disposal capacity of over 9,400 tons per day. The estimated closing dates of the landfills are 2053 and 2021. The County of Orange is required to maintain 15 years' identified disposal capacity, or have a plan to

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transform or divert its waste, pursuant to AB 939. Thus, while General Plan buildout could occur after 2053, the county would be required to have 15 years' identified disposal capacity after that date. There is adequate landfill capacity in the region for solid waste that would be generated by the General Plan Update buildout, and impacts would be less than significant.

#### Impacts on Regulations Governing Solid Waste Disposal

New development projects approved by the City of Los Alamitos pursuant to the General Plan Update would contain storage areas for recyclable materials in conformance with City Municipal Code Section 17.16.110 and California Public Resources Code Sections 42900 et seq. Solid waste diversion programs in the City would continue operating.

#### 5.12.4.4 APPLICABLE GENERAL PLAN POLICIES

##### Public Facilities and Safety Element

- **Policy 1.5 Waste management** - A waste management system that meets or exceeds state recycling and waste diversion mandates while providing cost-effective disposal of waste for residents, businesses, and the City.

#### 5.12.4.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### State

- California Public Resources Code 40050 et seq.: Integrated Solid Waste Management Act of 1989
- California Public Resources Code Sections 42900 et seq.: California Solid Waste Reuse and Recycling Access Act
- Assembly Bill 341 (Chapter 476, Statutes of 2011)
  - Title 24, California Code of Regulations, Part 11 (California Green Building Standards Code), Section 5.408

#### 5.12.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.12-4 would be less than significant.

#### 5.12.4.7 MITIGATION MEASURES

No mitigation measures are required.

#### 5.12.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEM

#### 5.12.5 Other Utilities

##### 5.12.5.1 ENVIRONMENTAL SETTING

#### Regulatory Background

##### *California Energy Commission (CEC)*

The CEC was created as the state's principal energy planning organization in 1974, in order to meet the energy challenges facing the state in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- forecasting statewide electricity needs;
- licensing power plants to meet those needs;
- promoting energy conservation and efficiency measures;
- developing renewable energy resources and alternative energy technologies;
- promoting research, development and demonstration
- planning for and directing the state's response to energy emergencies.

##### *Title 24, California Code of Regulations, Part 6: Energy Efficiency Standards for Buildings*

Title 24 was first established in 1978, in response to a legislative mandate to reduce California's energy consumption. Since that time, Title 24 has been updated periodically to allow for consideration and possible incorporation of new energy-efficiency technologies and methods.

##### *Title 20, California Code of Regulations, Sections 1601 et seq: Appliance Efficiency Regulations*

The 2012 Appliance Efficiency Regulations took effect on February 13, 2013. The regulations include standards for both federally and nonfederally regulated appliances.

##### *Electric Utility Industry Restructuring Act: Assembly Bill 1890 (1996)*

The California Public Utilities Commission regulates investor-owned electric power and natural gas utility companies in the State of California. AB 1890, enacted in 1996, deregulated the power generation industry, allowing customers to purchase electricity on the open market. Under deregulation, the production and distribution of power that was under the control of investor-owned utilities (e.g. Southern California Edison) was decoupled. All new construction in California is subject to the energy conservation standards set forth in Title 24, Part 6, Article 2 of the California Administrative Code. These are prescriptive standards that establish maximum energy consumption levels for the heating and cooling of new buildings. The use of alternative energy applications in development projects (including the Proposed Project), while encouraged, is not required as a development condition. Such applications may include installation of photovoltaic solar panels, active solar water heating systems, or integrated pool deck water heating systems, all of which serve to displace consumption of conventional energy sources (i.e. electricity and natural gas). Incentives, primarily in the form of state and federal tax credits, as well as reduced energy bills, provide a favorable basis.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

#### Existing Conditions

##### *Electricity*

Southern California Edison (SCE) provides electricity to Los Alamitos and Rossmoor. Total electricity demands in SCE's service area are forecast to increase from 99,224 gigawatt-hours per year (GWh/yr) in 2011 to 109,888 GWh/yr in 2020 (CEC 2012); one GWh is equivalent to one million kilowatt-hours. In 2013, the most recent year for which data are available, 21.6 percent of SCE's electricity was generated by renewable sources (CPUC 2014). SCE's renewable inventory is primarily from geothermal and wind power. In 2012, SCE's energy portfolio included 7 percent from coal, 4 percent from large hydroelectric, 21 percent from natural gas, 7 percent from nuclear, and 41 percent from unspecified sources (SCE 2013).

##### *Electric Generating Capacity in California*

In 2011 about 200,000 GWh of electricity were generated in California by government agencies, utilities, and commercial generators. Net imports of electricity into the state in 2011 amounted to approximately 85,000 GWh (CEC 2013).

The California Public Utilities Commission has approved contracts for roughly 7,700 megawatts (MW) of in-state central-station renewable generation facilities that are not yet operational; though some have begun construction, many have not. Some of these contracted facilities are not expected to be completed. California Governor Edmund Brown's office has set an overall target of 12,000 MW of renewable distributed generation by 2020. Existing programs, including rooftop solar, the Renewable Auction Mechanism, and the Solar Photovoltaic Program, have targets totaling 9,000 MW, meaning that programs totaling 3,000 MW would need to be developed. Some 3,000 MW of this 12,000 are operational (Vidaver 2013), and 2,030 MW of gas-fired generation is under construction as of May 2013 (Vidaver 2013).

##### *Existing Electricity Demand in Los Alamitos*

Existing electricity demand in the City of Los Alamitos was provided by SCE for 2013 and 2012. Average annual aggregated electricity demand for all uses in the City of Los Alamitos during this period is approximately 142.1 million kilowatt-hours per year (kWh/yr).

##### *Natural Gas*

The Southern California Gas Company (SoCal Gas) supplies natural gas to the City and Rossmoor. Total natural gas supplies available to SoCal Gas are forecast to remain constant at 38.8 million therms per day (3,875 million cubic feet per day) from 2015 through 2030 (CGEU 2012). SoCal Gas obtains its natural gas supplies from the United States and Canada.

Existing natural gas demand in Los Alamitos over the three-year period 2011 through 2013, provided by SoCal Gas, averaged approximately 2.9 million therms per year.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEM

#### 5.12.5.2 THRESHOLDS OF SIGNIFICANCE

Although not specifically in Appendix G of the CEQA Guidelines, the following additional threshold is also addressed in the impact analysis: a project would normally have a significant effect on the environment if the project:

- U-8 Would increase demand for other public services or utilities. According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

#### 5.12.5.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

**Impact 5.12-5:** The General Plan Update would result in an increase in natural gas use and electricity use; however, additional demand would be accommodated by Southern California Edison and the Southern California Gas Company. [Threshold U-8]

#### *Impact Analysis:*

#### Electricity

The General Plan Update buildout is estimated to result in an increase in electricity use of approximately 33.1 million kilowatt hours per year in the City and Rossmoor, shown below in Table 5.12-6, *Los Alamitos Estimated Electricity Demand*. SCE is forecast to have adequate electricity supplies to meet demands resulting from General Plan Update buildout. Buildout of the General Plan Update would not require SCE to obtain additional electricity supplies beyond its currently forecast supplies.

**Table 5.12-6 Los Alamitos Estimated Electricity Demand**

|                                | Existing Electricity Demand (kwh/year) |                   |                    | General Plan Buildout Electricity Demand (kwh/year) |                   |                    | Increase (kwh/year) |
|--------------------------------|----------------------------------------|-------------------|--------------------|-----------------------------------------------------|-------------------|--------------------|---------------------|
|                                | City                                   | Rossmoor          | City + Rossmoor    | City                                                | Rossmoor          | City + Rossmoor    |                     |
| Residential Electricity Use    | 30,904,601                             | 26,398,844        | 57,303,445         | 33,335,614                                          | 27,684,207        | 61,019,821         | 3,716,376           |
| Nonresidential Electricity Use | 111,208,871                            | 3,079,390         | 114,288,261        | 140,498,161                                         | 3,180,737         | 143,678,898        | 29,390,637          |
| <b>Total Electricity Use</b>   | <b>142,113,472</b>                     | <b>29,478,235</b> | <b>171,591,706</b> | <b>173,833,775</b>                                  | <b>30,864,945</b> | <b>204,698,720</b> | <b>33,107,013</b>   |

Notes: kWh = kilowatt hour

<sup>1</sup> Based on average annual electricity for residential land uses in the City, 6,986 kWh/unit, provided by SCE for 2013 and 2012. Projected based on increase in housing units.

<sup>2</sup> Based on average annual electricity for non-residential land uses in the City, 7,796 kWh/employee, provided by SCE for 2013 and 2012. Projected based on increase in employment.



## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

#### Natural Gas

The General Plan Update buildout is estimated to result in an increase in natural gas use in the City and Rossmoor of approximately 569,928 therms per year, shown below in Table 5.12-7, *Los Alamitos Estimated Natural Gas Demand*. Existing SoCal Gas supplies are vastly greater than the forecast net increase in natural gas demands resulting from General Plan Update buildout. SoCalGas would have sufficient natural gas supplies to meet the net increase in natural gas demands due to General Plan Update buildout, and impacts would be less than significant.

**Table 5.12-7 Los Alamitos Estimated Natural Gas Demand**

|                                | Existing Natural Gas Demand (therms/year) |                  |                  | General Plan Buildout Natural Gas Demand (therms/year) |                  |                  | Increase (therms/year) |
|--------------------------------|-------------------------------------------|------------------|------------------|--------------------------------------------------------|------------------|------------------|------------------------|
|                                | City                                      | Rossmoor         | City + Rossmoor  | City                                                   | Rossmoor         | City + Rossmoor  |                        |
| Residential Natural Gas Use    | 1,405,380                                 | 1,200,482        | 2,605,862        | 1,515,930                                              | 1,258,934        | 2,774,864        | 169,001                |
| Nonresidential Natural Gas Use | 1,517,035                                 | 42,007           | 1,559,042        | 1,916,580                                              | 43,389           | 1,959,969        | 400,927                |
| <b>Total Natural Gas Use</b>   | <b>2,922,416</b>                          | <b>1,242,489</b> | <b>4,164,905</b> | <b>3,432,510</b>                                       | <b>1,302,323</b> | <b>4,734,833</b> | <b>569,928</b>         |

Notes:

<sup>1</sup> Based on average annual natural gas use for residential land uses in the City, 318 therms/unit, provided by SoCalGas for 2013, 2012, and 2011. Projected based on increase in housing units.

<sup>2</sup> Based on average annual natural gas use for non-residential land uses in the City, 106 therms/employee, provided by SoCalGas for 2013, 2012, and 2011. Projected based on increase in employment.

#### 5.12.5.4 APPLICABLE GENERAL PLAN UPDATE POLICIES

##### Open Space, Recreation, and Conservation Element

- **Policy 4.5 Energy and water conservation** - Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the City's zoning ordinance and the California Building Code.
- **Policy 4.9 Renewable Energy** - Promote the use of renewable energy sources to serve public and private sector development.

#### 5.12.5.5 EXISTING REGULATIONS AND STANDARD CONDITIONS

##### State

- Title 24, California Code of Regulations, Part 6: Energy Efficiency Standards for Buildings
- Title 20, California Code of Regulations, Sections 1601 et seq.: Appliance Efficiency Regulations
- Electric Utility Industry Restructuring Act: Chapter 854, Statutes of 1996

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEM

#### 5.12.5.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.12-6 would be less than significant.

#### 5.12.5.7 MITIGATION MEASURES

No mitigation measures are required.

#### 5.12.5.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

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## 5. Environmental Analysis

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## 6. Significant Unavoidable Adverse Impacts

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At the end of Chapter 1, *Executive Summary*, is a table that summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. While mitigation measures would reduce the level of impact, the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

### Air Quality

- **Impact 5.2-1.** Buildout of the project would generate less population but more employment growth and slightly more vehicle miles traveled than the Current General Plan; therefore, the project would be inconsistent with South Coast Air Quality Management District's (SCAQMD) 2012 Air Quality Management Plan (AQMP). Mitigation measures incorporated into future development projects and adherence to the project policies for operation and construction phases described in Impacts 5.2-2 and 5.2-3 would reduce criteria air pollutant emissions associated with buildout of the project. Goals and policies included in the project would facilitate continued City participation/cooperation with SCAQMD and Southern California Association of Governments to achieve regional air quality improvement goals, promote energy conservation design and development techniques, encourage alternative transportation modes, and implement transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the air quality management plan due to the magnitude of growth and associated emissions that would be generated by the buildout of the City of Los Alamitos and Rossmoor in accordance with the project. Impact 5.2-1 would remain significant and unavoidable.
- **Impact 5.2-2.** Construction activities associated with the buildout of the project would generate criteria air pollutant emissions that would exceed SCAQMD's regional significance thresholds and would contribute to the nonattainment designations of the South Coast Air Basin (SoCAB). Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by future construction activities associated with the buildout of the project, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Impact 5.2-2 would remain significant and unavoidable.
- **Impact 5.2-3.** Buildout of the proposed land use plan would generate additional vehicle trips and area sources of criteria air pollutant emissions that exceed SCAQMD's regional significance thresholds and would contribute to the nonattainment designations of the SoCAB. Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by the buildout of the project, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Impact 5.2-3 would remain significant and unavoidable.

## 6. Significant Unavoidable Adverse Impacts

- **Impact 5.2-4.** Localized emissions of criteria air pollutants could exceed the SCAQMD regional significance thresholds because of the scale of development activity associated with theoretical buildout of the project. For this broad-based General Plan Update, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of localized emissions thresholds. Therefore, in accordance with the SCAQMD methodology, Impact 5.244 would remain significant and unavoidable.

### Greenhouse Gas Emissions

- **Impact 5.4-2.** Although the 2014 Scoping Plan Update assessed programs to achieve the 2020 targets for the state, no additional GHG reductions programs have been outlined that get the state to the post-2020 targets identified in Executive Order S-03-05, which are an 80 percent reduction in 1990 emissions by 2050. Mitigation Measure 4-1 would ensure that the City continues to implement actions that reduce GHG emissions from buildout of the General Plan. However, additional federal and state measures would be necessary to reduce GHG emissions to meet the long-term goals under Executive Order S-03-05. According to the California Council on Science and Technology, the state cannot meet the 2050 goal without major advance in technology (CCST 2012). Since no additional federal or state measures are currently available for post-2020 that would ensure that the City of Los Alamitos and Rossmoor could achieve an interim target, Impact 5.4-2 would remain significant and unavoidable.

### Noise

- **Impact 5.7-3.** The proposed project could create elevated levels of groundborne vibration and groundborne noise during construction activities. Mitigation Measure 7-1 would reduce vibration impacts associated with construction activities to the extent feasible. However, distance and other site conditions may render implementation of the mitigation measure infeasible or ineffective for future projects, and Mitigation Measure 7-1 would not guarantee that vibration impacts construction of projects would be reduced to less than significant levels. Impact 5.7-3 would remain significant and unavoidable.
- **Impact 5.7-4.** Construction activities would result in temporary noise increases in the vicinity of sensitive land uses. Mitigation Measure 7-2 would reduce noise impacts associated with construction activities to the extent feasible. However, distance, source to receiver geometry, and other site conditions may render implementation of the mitigation measure infeasible or ineffective for future projects, and Mitigation Measure 7-2 would not guarantee that construction noise impacts would be reduced to less than significant levels. Impact 5.7-4 would be significant and unavoidable.

### Transportation and Traffic

- **Impact 5.11-1.** Three intersections and two roadways in the City would exceed the City's LOS standards, and mitigation measures are considered infeasible due to right-of-way constraints. Policy 1.4 of the General Plan Update identifies these intersections and roadways as "exempt." Once the General Plan Update is adopted, these intersections and roadways would be exempt from the City's LOS "D" standard. However, based on the current General Plan and the City's current standards for these intersections and roadways, Impact 5.11-1 would be significant and unavoidable.

## 7. Alternatives to the Proposed Project

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### 7.1 INTRODUCTION

#### 7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR ) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- “The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (15126.6[b]).
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact” (15126.6[e][1]).
- “The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” (15126.6[e][2]).
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project” (15126.6[f]).
- “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 (or the site is already owned by the proponent)” (15126.6[f][1]).



## 7. Alternatives to the Proposed Project

- “For alternative locations, “only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (15126.6[f][2][A]).
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative” (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alternative,
- Analyzes the impact of the alternative as compared to the proposed project,
- Identifies the impacts of the project that would be avoided or lessened by the alternative,
- Assesses whether the alternative would meet most of the basic project objectives, and
- Evaluates the comparative merits of the alternative and the project.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

### 7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the General Plan Update and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts:

- Maintain high levels of safety and service
- Create an attractive and pedestrian-friendly downtown
- Introduce pedestrian bridges
- Maximize retail opportunities along Katella Avenue
- Relocate City Hall
- Offer incentives to preserve and attract business
- Improve the look and identity of the City
- Provide consistent and effective code enforcement
- Maintain a good relationship with the Los Alamitos Unified School District
- Create more open space, parks, trails, community gardens, and recreation areas
- Evaluate annexation carefully
- Establish centralized parking options
- Enhance cultural uses and historical preservation

## 7. Alternatives to the Proposed Project

### 7.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following significant and unavoidable impacts are identified in Chapter 5, *Environmental Analysis*, of this Draft EIR:

#### Air Quality

- **Impact 5.2-1:** Buildout of the project would generate less population but more employment and slightly more vehicle miles traveled (VMT) than the Current General Plan; therefore, the project would be inconsistent with South Coast Air Quality Management District's (SCAQMD) 2012 Air Quality Management Plan (AQMP). Mitigation measures incorporated into future development projects and adherence to the project policies for operation and construction phases described in Impacts 5.2-2 and 5.2-3 would reduce criteria air pollutant emissions associated with buildout of the project. Goals and policies included in the project would facilitate continued City participation/cooperation with SCAQMD and Southern California Association of Governments SCAG to achieve regional air quality improvement goals, promote energy conservation design and development techniques, encourage alternative transportation modes, and implement transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the air quality management plan due to the magnitude of growth and associated emissions that would be generated by the buildout of the City of Los Alamitos and Rossmoor in accordance with the project. Impact 5.2-1 would remain significant and unavoidable.
- **Impact 5.2-2:** Construction activities associated with the buildout of the project would generate criteria air pollutant emissions that would exceed SCAQMD's regional significance thresholds and would contribute to the nonattainment designations of the South Coast Air Basin (SoCAB). Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by future construction activities associated with the buildout of the project, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Impact 5.2-2 would remain significant and unavoidable.
- **Impact 5.2-3:** Buildout of the proposed land use plan would generate additional vehicle trips and area sources of criteria air pollutant emissions that exceed SCAQMD's regional significance thresholds and would contribute to the nonattainment designations of the SoCAB. Goals and policies are included in the project that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by the buildout of the project, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Impact 5.2-3 would remain significant and unavoidable.
- **Impact 5.2-4:** Localized emissions of criteria air pollutants could exceed the SCAQMD regional significance thresholds because of the scale of development activity associated with theoretical buildout of the project. For this broad-based General Plan Update, it is not possible to determine whether the scale and phasing of individual projects would result in the exceedance of the localized emissions thresholds. Therefore, in accordance with the SCAQMD methodology, Impact 5.2-4 would remain significant and unavoidable.

## 7. Alternatives to the Proposed Project

### Greenhouse Gas Emissions

- **Impact 5.4-2:** The 2014 Scoping Plan Update assessed programs to achieve the 2020 targets for the state, but at this time, no additional greenhouse gas (GHG) reductions programs have been outlined that get the State to the post-2020 targets identified in Executive Order S-03-05, which are an 80 percent reduction in 1990 emissions by 2050. Mitigation Measure 4-1 would ensure that the City continues to implement actions that reduce GHG emissions from buildout of the General Plan. However, additional federal and state measures would be necessary to reduce GHG emissions to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 20 percent of 1990 levels by 2050. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advance in technology (CCST 2012). Since no additional federal or state measures are currently available that would ensure that the City of Los Alamitos and Rossmoor could achieve an interim target, Impact 5.4-2 would remain significant and unavoidable.

### Noise

- **Impact 5.7-3:** The proposed project could create elevated levels of groundborne vibration and groundborne noise; during construction activities. Mitigation Measure 7-1 would reduce vibration impacts associated with construction activities to the extent feasible. However, because of distance, and other site conditions that may render implementation of mitigation measure infeasible or ineffective for every future project in the City, Mitigation Measure 7-1 would not guarantee that vibration impacts construction of projects would be reduced to less than significant levels. Impact 5.7-3 would remain significant and unavoidable.
- **Impact 5.7-4:** Construction activities would result in temporary noise increases in the vicinity of sensitive land uses. Mitigation Measure 7-2 would reduce noise impacts associated with construction activities to the extent feasible. However, because of distance, source to receiver geometry, and other site conditions that may render implementation of mitigation measure infeasible or ineffective for every future project in the City, Mitigation Measure 7-2 would not guarantee that construction noise impacts would be reduced to less than significant levels. Impact 5.7-4 would be significant and unavoidable.

### Transportation and Traffic

- **Impact 5.11-1:** Three intersections and two roadways in the City would exceed the City's LOS standards. Mitigation measures for the three intersections and two roadways are considered infeasible due to right-of-way constraints. Policy 1.4 of the General Plan Update identifies these intersections and roadways as "exempt". Once the General Plan Update is adopted, these intersections and roadways would be exempt from the City's LOS "D" standard. However, based on the current General Plan and the City's current standards for these intersections and roadways, Impact 5.11-1 would be significant and unavoidable.

## 7. Alternatives to the Proposed Project

### 7.3 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this Draft EIR.

#### 7.3.1 Alternative Sites

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis 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 of the significant effects of the project need be considered for inclusion in the EIR (Guidelines Sec. 15126[5][B][1]). The proposed project is the General Plan Update for the City of Los Alamitos. The project is necessarily limited to the City of Los Alamitos and its sphere of influence (SOI), which is the community of Rossmoor, since the City does not have the authority to impose policies outside its boundaries. Therefore, no alternative sites were considered.

#### 7.3.2 No Growth Alternative

With the exception of the Los Alamitos Joint Forces Training Base (JFTB), over which the City has no land use authority, the City of Los Alamitos is primarily built out and there are relatively few remaining vacant parcels. Consequently, the land use changes associated with the proposed project focus on the three vacant parcels and select parcels that have the potential for redevelopment. In the community of Rossmoor, there are no changes proposed to the current land use designations, and the increase in development potential in Rossmoor is based solely on the secondary units allowed by state law.

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. Traffic impacts identified in Section 5.1, *Transportation and Traffic*, are primarily associated with cumulative growth identified in the Orange County Transportation Analysis Model (OCTAM). Even without the additional growth identified in the General Plan, the three intersections and two roadways identified as failing in Impact 5.11-1 would continue to operate at a deficient level of service (LOS) because the impact is related to cumulative growth rather than the proposed project. Likewise, the significant impact identified for GHG emissions under Impact 5.4-2 would continue to occur because the state has set a goal to reduce emissions to 80 percent below 1990 levels, which requires substantial changes in the sources of energy and new technologies that are not yet available.

The No Growth Alternative is considered and rejected because growth is allowed under the current General Plan, and there is no way to limit development within the City to its current extent. The No Growth Alternative would not achieve the objectives established for the proposed project and would not be in compliance with the adopted Housing Element pursuant to State Law. In addition, none the significant

## 7. Alternatives to the Proposed Project

impacts identified above would be eliminated under this alternative. Therefore, the No Growth Alternative is eliminated from further consideration.

### 7.4 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives which have the potential to feasibly attain most of the basic objectives of the project but which may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in the following sections.

- No Project/Current General Plan Alternative
- Arrowhead Products Site Alternative
- Increased Residential Land Use Alternative

An EIR must identify an “environmentally superior” alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality, GHG, noise, and traffic were found to be significant and unavoidable. Section 7.7 identifies the Environmentally Superior Alternative.

The Proposed Land Use Plan (proposed General Plan Update) is analyzed in detail in Chapter 5 of this DEIR.

#### Alternatives Comparison

The following statistical analysis provides a summary of general socioeconomic buildout projections determined by the four land use alternatives, including the proposed project. It is important to note that these are not growth projections. That is, they do not anticipate what is likely to occur by a certain time horizon, but rather provide a buildout scenario that would only occur if all the areas of the City were to develop to the probable capacities yielded by the land use alternatives. The following statistics were developed as a tool to better understand the differences between the alternatives. Table 7-1, *Buildout Statistical Summary for the Alternatives to the Proposed Project*, identifies City-wide information regarding dwelling units, population, and employment projections, and also provides the jobs-to-housing ratio for each of the alternatives.

## 7. Alternatives to the Proposed Project

Table 7-1 Buildout Statistical Summary for the Alternatives to the Proposed Project

| Resource              | Proposed Project | No Project/Current General Plan Alternative | Arrowhead Products Site Alternative | Increased Residential Land Use Alternative |
|-----------------------|------------------|---------------------------------------------|-------------------------------------|--------------------------------------------|
| Dwelling Units        | 8,735            | 9,402                                       | 8,735                               | 9,031                                      |
| Population            | 23,003           | 24,744                                      | 23,003                              | 23,775                                     |
| Employment            | 18,430           | 16,643                                      | 18,010                              | 17,654                                     |
| Jobs-to-Housing Ratio | 2.11             | 1.77                                        | 2.06                                | 1.95                                       |

## 7.5 NO PROJECT / CURRENT GENERAL PLAN ALTERNATIVE

In the No Project/ Current General Plan Alternative, the General Plan Update would not be implemented by the City. The current General Plan, including land use designations in the Land Use Element shown in Figure 3-4, *Current Land Use Plan*, would remain in effect. Buildout statistics for the proposed General Plan Update and the current General Plan are compared in Table 7-2, *No Project / Current General Plan Buildout Compared to the Proposed General Plan*.

Table 7-2 No Project / Current General Plan Buildout Compared to the Proposed General Plan

| Resource              | Proposed Project | No Project/Current General Plan Alternative | Change | Percent Change |
|-----------------------|------------------|---------------------------------------------|--------|----------------|
| Dwelling Units        | 8,735            | 9,402                                       | 667    | 8%             |
| Population            | 23,003           | 24,744                                      | 1,741  | 8%             |
| Employment            | 18,430           | 16,643                                      | -1,787 | -10%           |
| Jobs-to-Housing Ratio | 2.11             | 1.77                                        | -0.34  | -16%           |

Overall, land use designations are similar between the current General Plan and the proposed General Plan Update. However, the proposed land use plan would allow for more intense land uses along Katella through creation of a Mixed Use designation. Some additional retail employment would replace office and industrial employment through changes from Professional Office and Planned Industrial to Retail Business designations along Katella Avenue.

Additionally, the Mixed Use designation would create the opportunity for new residential on the upper floors of mixed use buildings around the intersection of Katella Avenue and Los Alamitos Boulevard. A few parcels designated for Planned Industrial near the intersection of Los Alamitos Boulevard and Cerritos Avenue would be converted to Multi Family Residential. The current General Plan, however, includes an assumption of roughly 850 housing units on the portion of the Los Alamitos JFTB designated for Multi-Family Residential. These housing units are not projected under the proposed General Plan Update.

Under the No Project/Current General Plan Alternative, these changes would not occur. As a result, the current General Plan allows for more residential growth and less employment growth.

## 7. Alternatives to the Proposed Project

### 7.5.1 Aesthetics

In this alternative, the entire City would be developed under the current land use plan and would involve new development and redevelopment in similar areas as the proposed General Plan Update. The City's Municipal Code identifies development standards to ensure quality development in the City. Aesthetic impacts would be similar to the proposed project and would be less than significant.

### 7.5.2 Air Quality

This alternative would result in an increase in residential development but a decrease in nonresidential development. As a result, this alternative would slightly improve the jobs-housing balance in Los Alamitos, which is currently jobs-rich. Because the development intensity of the proposed project and this alternative are similar but this alternative would improve the jobs-housing balance, this alternative would result in slightly less VMT and associated mobile-source emissions. This alternative would also result in similar levels of construction as the proposed project and associated short-term criteria air pollutant emissions. Implementation of the proposed project was found to have significant and unavoidable impacts to short- and long-term air quality. Like the proposed project, this alternative would cumulatively contribute to the SoCAB nonattainment designations and conflict with the AQMP. In comparison to the proposed project, this alternative would have slightly less air quality impacts but impacts would remain significant.

### 7.5.3 Cultural Resources

Portions of the City would be developed and/or redeveloped under this alternative, potentially disturbing cultural resources that may be below the surface. Impacts of this alternative to cultural resources would be similar to those of the proposed project and, like the proposed project, would be less than significant.

### 7.5.4 Greenhouse Gas Emissions

This alternative would have slightly less GHG emissions from stationary and mobile sources associated with new development compared to the proposed project. GHG emissions associated with this alternative would generally decrease from existing conditions as a result of federal and state GHG reduction programs. Compared to the proposed project, this alternative would result in an increase in residential development but a decrease in nonresidential development and would improve the jobs-housing balance in Los Alamitos, which is jobs-rich. As a result, this alternative would result in slightly less VMT and associated mobile-source emissions. This alternative would result in similar levels of construction as the proposed project. This alternative would result in slightly less GHG emissions and impacts. As identified previously, GHG emissions impacts under this alternative would continue to occur because the state has set a goal to reduce emissions to 80 percent below 1990 levels, which requires substantial changes in the sources of energy and new technologies that are not yet available. In comparison to the proposed project, this alternative would have slightly less GHG emissions impacts and would be significant.

## 7. Alternatives to the Proposed Project

### 7.5.5 Hazards and Hazardous Materials

In both this alternative and the proposed General Plan Update, land uses throughout the City would be required to comply with existing state, federal, and county regulations governing use, storage, transport, and disposal of hazardous materials and hazardous wastes. New development and redevelopment of the City in both scenarios would be required to comply with safety review areas, aviation easements, and deed notice areas in the Airport Environs Land Use Plan (AELUP) for the Los Alamitos JFTB. Therefore, hazards and hazardous materials impacts would be similar to the proposed project and would be less than significant.

### 7.5.6 Land Use and Planning

California Government Code Sections 65300 et seq. require that cities and counties prepare and adopt general plans. This alternative would leave the current General Plan (adopted in 1990) in place rather than updating it. Neither this alternative nor the proposed project would divide an established community. New development and redevelopment of the City would be required to comply with land use controls in the AELUP for the Los Alamitos JFTB. Land use impacts would be the same as the proposed project and would be less than significant.

### 7.5.7 Noise

In this alternative, construction and operational phase noise would be similar to that generated by buildout of the proposed General Plan Update, because development intensity would be similar (slightly more housing but slightly less employment). Traffic noise impacts of this alternative would also be similar and would be less than significant. Buildout of the proposed General Plan would have similar construction-related impacts and construction-related noise and vibration would be significant.

### 7.5.8 Population and Housing

This alternative would result in more housing and less employment at buildout. Therefore, this alternative would improve the job-housing balance in the City, which is currently jobs-rich. Population and housing impacts of this alternative would be slightly reduced under this alternative and would be less than significant.

### 7.5.9 Public Services

This alternative would result in more residential development and associated population in the City, resulting in an increase in demand for public services, including police, fire, libraries, and schools and associated staffing and facilities. Neither this alternative nor the proposed project would result in impacts to public services because additional staffing required and construction of new facilities would be funded through the additional revenue to the City's General Fund generated by new development and/or by impact fees to schools pursuant to Senate Bill 50 (SB 50). Development and operation of new facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Development of new service facilities and associated impacts are addressed throughout the EIR as part of the buildout analysis. Public service impacts would be slightly higher compared to the proposed project but would be less than significant.



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### 7.5.10 Recreation

Recreation impacts would be slightly higher under this alternative because this alternative would generate more residents and demand for parks. The City's current parkland standard is 2.5 acres of parkland for every 1,000 residents. Under the existing park standard, this alternative would generate a demand for 61.86 acres of parkland, and the City has 80.01 acres of available parkland. However, the proposed project includes a policy that would increase the park ratio for residents in the City. Under this alternative, the new policy to increase the park ratio for Los Alamitos would not be adopted, and associated impacts from this policy decision would be eliminated. However, because the actual demand for parkland would increase under this alternative, impacts are considered slightly higher compared to the proposed project, but would be less than significant.

### 7.5.11 Transportation and Traffic

This alternative would result in an increase in residential development but a decrease in nonresidential development and would improve the jobs-housing balance in Los Alamitos, which is jobs-rich. VMT may be slightly less because of the improved jobs-housing balance, compared to the proposed project. This alternative would also result in slightly fewer trips because residential uses generally generate fewer trips than commercial or other employment-based land uses. Traffic impacts identified in Section 5.1, *Transportation and Traffic*, are primarily associated with cumulative growth identified in the OCTAM. Even without the additional growth identified in the General Plan, the three intersections and two roadways identified as failing in Impact 5.11-1 would continue to operate at a deficient LOS because the impact is related to cumulative growth rather than the proposed project. Consequently, impacts would be slightly less than the proposed project, but would still be significant.

### 7.5.12 Utilities and Service Systems

This alternative would result in an increase in residential development but a decrease in nonresidential development in the City. The City is primarily built out with few remaining development opportunities. New development and redevelopment would be required to ensure sufficient sewer and storm drainage capacity is in place to meet the needs of the development. This alternative would have similar utility and service system impacts compared to the proposed General Plan Update, and impacts would be less than significant.

### 7.5.13 Conclusion

Impacts of this alternative would be similar to the proposed project for aesthetics, cultural resources, hazards and hazardous materials, land use and planning, noise, and utilities and service systems. Impacts of this alternative would be slightly reduced compared to those of the proposed project for air quality, GHG emissions, population and housing, and traffic. This alternative would slightly increase public services and recreational impacts compared to those of the proposed project. This alternative would not reduce any significant and unavoidable impacts of the proposed project to less than significant.

This alternative would not provide a comprehensive update to the City's General Plan consistent with California Government Code Sections 65300 et seq. This alternative would not revise the City's General Plan

## 7. Alternatives to the Proposed Project

pursuant to various state requirements for General Plans—for instance, Assembly Bill 1358, the Complete Streets Act of 2008. In addition, while this alternative would meet some of the objectives, it would not meet the project objectives to the same extent as the proposed project. The proposed General Plan Update would change the roadway configuration of Los Alamitos north of Katella Avenue to create a more pedestrian-friendly downtown. Consequently, this alternative would not meet the project objectives to create an attractive pedestrian-friendly downtown, introduce pedestrian bridges, maximize retail opportunities along Katella Avenue, relocate City hall, or establish centralized parking options.

### 7.6 ARROWHEAD PRODUCTS SITE ALTERNATIVE

In the Arrowhead Products Site Alternative, the General Plan Update would be the same except for the proposed redesignation of the 28-acre Arrowhead Products site from industrial to retail uses. The Arrowhead Products facility has been a fixture in Los Alamitos for decades and is a major employer in the City. However, the site's location along Katella Avenue, large size (28 acres), and proximity to regional retail in Cypress positions the site as a good candidate for retail development. Consequently, under the proposed project this site could redevelop if Arrowhead Products decides to move locations or change its business. Under this alternative, the designation for Arrowhead Products site would remain Planned Industrial. Industrial land uses generate less traffic than retail uses, and no changes from existing conditions would occur for this parcel. Consequently, this alternative was chosen because it would reduce traffic, air quality, GHG emissions, and noise impacts of the proposed project. The remaining portions of the City and Rossmoor would be built out in accordance with the proposed project.

Buildout statistics for the proposed General Plan Update and the Arrowhead Products Site Alternative are compared in Table 7-3, *Arrowhead Products Site Buildout Compared to the Proposed General Plan*.

**Table 7-3 Arrowhead Products Site Alternative Buildout Compared to the Proposed General Plan**

| Resource              | Proposed Project | Arrowhead Products Site Alternative | Change | Percent Change |
|-----------------------|------------------|-------------------------------------|--------|----------------|
| Dwelling Units        | 8,735            | 8,735                               | None   | None           |
| Population            | 23,003           | 23,003                              | None   | None           |
| Employment            | 18,430           | 18,010                              | -420   | -2%            |
| Jobs-to-Housing Ratio | 2.11             | 2.06                                | -0.05  | -2%            |

#### 7.6.1 Aesthetics

This alternative would have similar impacts to the proposed project since the only change in the aesthetic conditions would be the retention of the Arrowhead Products site as it currently operates rather than its conversion to commercial/retail land uses under the proposed project designation. Under the proposed project, new development would meet the City's new development standards to ensure quality development and would improve the Katella Avenue corridor. This alternative would not redevelop the site and improve the façade along Katella Avenue. However, generally aesthetic impacts would be the same as the proposed project and would be less than significant.

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### 7.6.2 Air Quality

This alternative would result in a slight reduction in trips compared to the proposed project because the existing industrial use generates fewer trips than the commercial land uses under the proposed project. This alternative would also result in slightly less construction activities than the proposed project and associated short-term criteria air pollutant emissions because no new development would occur on the Arrowhead Products site. Implementation of the proposed project was found to have significant and unavoidable impacts to short- and long-term air quality. Like the proposed project, this alternative would cumulatively contribute to the SoCAB nonattainment designations and conflict with the AQMP. In comparison to the proposed project, this alternative would have slightly less short- and long-term air quality impacts, but impacts would be significant.

### 7.6.3 Cultural Resources

Portions of the City would be developed and/or redeveloped under this alternative, potentially disturbing cultural resources that may be below the surface. While no development would occur on the Arrowhead Products site, generally impacts of this alternative to cultural resources would be similar to those of the proposed project and would be less than significant.

### 7.6.4 Greenhouse Gas Emissions

This alternative would result in a slight reduction in trips compared to the proposed project because the existing industrial use generates fewer trips than the commercial land uses under the proposed project. Consequently, this alternative would have slightly less GHG emissions from mobile sources associated with new development compared to the proposed project. GHG emissions associated with this alternative would generally decrease from existing conditions as a result of federal and state GHG reduction programs. Additionally, this alternative would result in slightly less construction emissions than the proposed project. Therefore, this alternative would result in slightly less GHG emissions and impacts. As identified previously, GHG emissions impacts under this alternative would continue to occur because the state has set a goal to reduce emissions to 80 percent below 1990 levels, which requires substantial changes in the sources of energy and new technologies that are not yet available. In comparison to the proposed project, this alternative would have slightly less GHG emissions impacts, but impacts would be significant.

### 7.6.5 Hazards and Hazardous Materials

In both this alternative and the proposed General Plan Update, land uses throughout the City, including the Arrowhead Products site, would be required to comply with existing state, federal, and county regulations governing use, storage, transport, and disposal of hazardous materials and hazardous wastes. New development and redevelopment of the City in both scenarios would be required to comply with safety review areas, avigation easements, and deed notice areas in the AELUP for the Los Alamitos JFTB. Therefore, hazards and hazardous materials impacts would be similar to the proposed project and would be less than significant.

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### 7.6.6 Land Use and Planning

Neither this alternative nor the proposed project would divide an established community. New development and redevelopment of the City would be required to comply with land use controls set forth in the AELUP for the Los Alamitos JFTB. Land use impacts would be the same as the proposed project and would be less than significant.

### 7.6.7 Noise

In this alternative, construction and operational phase noise would be slightly less than that generated by buildout of the proposed project. This alternative would result in a slight reduction in trips and associated noise impacts compared to the proposed project because the existing industrial use generates fewer trips than the commercial land uses under the proposed project. In addition, this alternative would result in slightly less construction related noise because no construction would occur on the Arrowhead Products site. Noise impacts of this alternative would be slightly less but construction noise and vibration would remain significant and unavoidable.

### 7.6.8 Population and Housing

This alternative would result in less employment at buildout since the Arrowhead Products site would not redevelop with commercial/retail land uses. Therefore, this alternative would slightly improve the job-housing balance in the City, which is currently jobs-rich. Population and housing impacts of this alternative would be slightly reduced under this alternative and would be less than significant.

### 7.6.9 Public Services

This alternative would result in less employment but would generate the same amount of residential development. Therefore, this alternative would have a similar demand for public services, including police, fire, libraries, and schools compared to the proposed project. Neither this alternative nor the proposed project would result in impacts to public services, because additional staffing and construction of new facilities for public services would be funded through the additional revenue to the City's General Fund generated by new development and/or school impact fees pursuant to Senate Bill 50 (SB 50). Development and operation of new facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Development of new service facilities and associated impacts are addressed throughout the EIR as part of the buildout analysis. Public service impacts would be the same as the proposed project and would be less than significant.

### 7.6.10 Recreation

This alternative would have the same population as the proposed project and therefore generate the same increase in demand for recreation. This alternative also includes the new parkland standard for the City. Therefore, public service impacts would be the same as the proposed project and would be less than significant.

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### 7.6.11 Transportation and Traffic

This alternative would result in a slight reduction in trips compared to the proposed project because the existing industrial use generates fewer trips than the commercial land uses under the proposed project. However, traffic impacts identified in Section 5.11, *Transportation and Traffic*, are primarily associated with cumulative growth identified in the OCTAM. Even without the additional growth identified in the General Plan, the three intersections and two roadways identified as failing in Impact 5.11-1 would continue to operate at a deficient LOS because the impact is related to cumulative growth rather than the proposed project. Consequently, impacts would be slightly less than the proposed project and would be significant.

### 7.6.12 Utilities and Service Systems

This alternative would result in a decrease in nonresidential development in the City compared to the proposed project since the 28-acre site would continue to operate as Arrowhead Products and would not convert to commercial/retail land uses. The City is primarily built out with few remaining development opportunities. Information on the amount of existing energy, water, and sewer use associated with the Arrowhead Products site is not available to the City. It is possible that redevelopment of the site would result in a similar or increased demand for water, sewer, and energy. However, new development would be required to ensure sufficient sewer and storm drainage capacity is in place to meet the needs of the development. Therefore, this alternative would have similar utility and service system impacts compared to the proposed General Plan Update, and impacts would be less than significant.

### 7.6.13 Conclusion

Impacts of this alternative would be similar to the proposed project for aesthetics, cultural resources, hazards and hazardous materials, land use and planning, public services, recreation, and utilities and service systems. Impacts of this alternative would be slightly reduced compared to those of the proposed project for air quality, GHG emissions, noise, population and housing, and traffic. This alternative would not reduce any significant and unavoidable impacts of the proposed project to less than significant.

This alternative would meet most of the project objectives but would not meet the objective to maximum retail opportunities along Katella Avenue to the same extent as the proposed project.

## 7.7 INCREASED RESIDENTIAL LAND USE ALTERNATIVE

In the Increased Residential Land Use Alternative, the General Plan Update would be the same except for 13 acres fronting Katella just east of Interstate 605 (I-605). Approximately 3 acres of the site are currently occupied by public use properties (City Hall, Police Department, City Yard, Chamber of Commerce, and the Community Center) and the western 10 acres are occupied by SuperMedia.

Under the proposed project, these parcels are proposed to be designated for commercial/retail land use. Under this alternative, the land use plan would designate this site for multifamily residential use (assumed 22 units per acre) to increase the amount of residential land uses and improve the job-housing balance in the

## 7. Alternatives to the Proposed Project

City. Improving the jobs-housing balance can reduce VMT and traffic congestion and associated traffic, air quality, and GHG emissions impacts of the proposed project.

Buildout statistics for the proposed General Plan Update and the Increased Residential Land Use Alternative are compared in Table 7-4, *Increased Residential Land Use Buildout Compared to the Proposed General Plan*.

**Table 7-4 Increased Residential Land Use Buildout Compared to the Proposed General Plan**

| Resource              | Proposed Project | Increased Residential Land Use Alternative | Change | Percent Change |
|-----------------------|------------------|--------------------------------------------|--------|----------------|
| Dwelling Units        | 8,735            | 9,031                                      | 296    | 3%             |
| Population            | 23,003           | 23,775                                     | 772    | 3%             |
| Employment            | 18,430           | 17,654                                     | -776   | -4%            |
| Jobs-to-Housing Ratio | 2.11             | 1.95                                       | -0.16  | -7%            |

### 7.7.1 Aesthetics

In this alternative, similar areas of the City would be developed or redeveloped as in the proposed General Plan Update, including the 13-acre site. The City's Municipal Code identifies development standards to ensure quality development in the City. Aesthetic impacts would be the same as the proposed project and would be less than significant.

### 7.7.2 Air Quality

This alternative would result in an increase in residential development and a decrease in commercial/office development. As a result, this alternative would slightly improve the jobs-housing balance in Los Alamitos, which is currently jobs-rich. Because the development intensity of the proposed project and this alternative are similar but this alternative would improve the jobs-housing balance, this alternative would result in slightly less VMT and associated mobile-source emissions. This alternative would also result in similar levels of construction as the proposed project and associated short-term criteria air pollutant emissions. Implementation of the proposed project was found to have significant and unavoidable impacts to short- and long-term air quality. Like the proposed project, this alternative would cumulatively contribute to the SoCAB nonattainment designations and conflict with the AQMP. However, this alternative would place additional residents near to I-605, and new development would be required to meet the SCAQMD performance standards outlined in the mitigation measure to ensure health risks are minimized. In comparison to the proposed project, this alternative would have slightly less air quality impacts, but impacts would be significant.

### 7.7.3 Cultural Resources

Portions of the City would be developed and/or redeveloped under this alternative, potentially disturbing cultural resources that may be below the surface. Impacts of this alternative to cultural resources would be similar to those of the proposed project and would be less than significant.

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### 7.7.4 Greenhouse Gas Emissions

GHG emissions associated with this alternative would generally decrease from existing conditions as a result of federal and state GHG reduction programs. Compared to the proposed project, this alternative would result in an increase in residential development and decrease in employment-generating land uses and would improve the jobs-housing balance in Los Alamitos, which is jobs-rich. As a result, this alternative would result in slightly less VMT and associated mobile-source emissions. It would result in similar levels of construction as the proposed project. This alternative would result in slightly less GHG emissions and impacts. As identified previously, GHG emissions impacts under this alternative would continue to occur because the state has set a goal to reduce emissions to 80 percent below 1990 levels, which requires substantial changes in the sources of energy and new technologies that are not yet available. In comparison to the proposed project, this alternative would have slightly less GHG emissions impacts but impacts would be significant.

### 7.7.5 Hazards and Hazardous Materials

In both this alternative and the proposed General Plan Update, land uses throughout the City would be required to comply with existing state, federal, and county regulations governing use, storage, transport, and disposal of hazardous materials and hazardous wastes. New development and redevelopment of the City in both scenarios would be required to comply with safety review areas, aviation easements, and deed notice areas in the AELUP for the Los Alamitos JFTB. Therefore, hazards and hazardous materials impacts would be similar to the proposed project and would be less than significant.

### 7.7.6 Land Use and Planning

Neither this alternative nor the proposed project would divide an established community. New development and redevelopment of the City would be required to comply with land use controls in the AELUP for the Los Alamitos JFTB. Land use impacts would be the same as the proposed project and would be less than significant.

### 7.7.7 Noise

In this alternative, construction and operational phase noise would be similar to that generated by buildout of the proposed General Plan Update, because development intensity would be similar (slightly more housing but slightly less employment) and redevelopment of the 13-acre site would still occur. This alternative would result in slightly less VMT and traffic congestion. Traffic noise impacts of this alternative would also be slightly and would be less than significant. Buildout of the proposed General Plan would have similar construction-related impacts and construction-related noise and vibration would be significant.

### 7.7.8 Population and Housing

This alternative would result in more housing and less employment at buildout. Therefore, this alternative would improve the job-housing balance in the City, which is currently jobs-rich. Population and housing impacts of this alternative would be slightly reduced under this alternative and would be less than significant.

## 7. Alternatives to the Proposed Project

### 7.7.9 Public Services

This alternative would result in more residential development and associated population in the City, resulting in an increase in demand for public services, including police, fire, libraries, and schools and associated staffing and facilities. An additional 296 residential units would generate 207 additional students in the Los Alamitos Unified School District boundaries based on the California Department of Education student generation rate of 0.7 K–12 student per housing unit. However, neither this alternative nor the proposed project would result in impacts to public services because additional staffing and construction of new facilities for public services would be funded through the additional revenue to the City's General Fund generated by new development and/or school impact fees pursuant to SB 50. Development and operation of new facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Development of new service facilities and associated impacts are addressed throughout the EIR as part of the buildout analysis. Public service impacts would be slightly higher compared to the proposed project but would be less than significant.

### 7.7.10 Recreation

Recreation impacts would be slightly higher under this alternative because it would generate more residents and thus more demand for parks. The City's current parkland standard is 2.5 acres of parkland for every 1,000 residents. Under the existing park standard, this alternative would generate a demand for 1.93 additional acres of parkland compared to the proposed project, for a total demand of 59.4 acres of parkland; however, the City has 93.49 acres of available parkland. This alternative would retain the policy to revise the parkland standard to five acres of park and recreation space. Under this alternative, the new policy to increase the park ratio for Los Alamitos would result in demand for 3.86 additional acres of parkland compared to the proposed project. Mitigation would be required to ensure that the City's demand for parkland under the new standard can be achieved. Recreational impacts are considered slightly higher compared to the proposed project, but would be less than significant.

### 7.7.11 Transportation and Traffic

This alternative would result in an increase in residential development but a decrease in nonresidential development and would improve the jobs-housing balance in Los Alamitos, which is jobs-rich. VMT may be slightly less because of the improved jobs-housing balance, compared to the proposed project. This alternative would also result in slightly fewer trips, because residential uses generally generate fewer trips than commercial or other employment-based land uses. Traffic impacts identified in Section 5.11, *Transportation and Traffic*, are primarily associated with cumulative growth identified in the OCTAM. Even without the additional growth identified in the General Plan, the three intersections and two roadways identified as failing in Impact 5.11-1 would continue to operate at a deficient LOS because the impact is related to cumulative growth rather than the proposed project. Consequently, impacts would be slightly less than the proposed project, but would still be significant.



## 7. Alternatives to the Proposed Project

### 7.7.12 Utilities and Service Systems

This alternative would result in an increase in residential development but a decrease in nonresidential development in the City. The City is primarily built out with few remaining development opportunities. New development and redevelopment would be required to ensure sufficient sewer and storm drainage capacity is in place to meet the needs of the development. This alternative would have similar utility and service system impacts compared to the proposed General Plan Update, and impacts would be less than significant.

### 7.7.13 Conclusion

Impacts of this alternative would be similar to the proposed project for aesthetics, cultural resources, hazards and hazardous materials, land use and planning, noise, and utilities and service systems. Impacts of this alternative would be slightly reduced compared to those of the proposed project for air quality, GHG emissions, population and housing, and traffic. This alternative would slightly increase public services and recreational impacts compared to those of the proposed project. This alternative would not reduce any significant and unavoidable impacts of the proposed project to less than significant.

This alternative would meet the project objectives but would not meet the objective to maximize retail opportunities along Katella Avenue to the same extent as the proposed project.

## 7.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the “environmentally superior alternative” and, in cases where the “No Project” Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. One alternative has been identified as “environmentally superior” to the proposed project:

- Arrowhead Products Site Alternative

This alternative would lessen impacts of the proposed project associated with air quality, GHG emissions, noise, population, and transportation and traffic. The remaining impacts are generally the same as the proposed project (see Table 7-5, *Summary of Impacts of Alternatives Compared to the Proposed Project*). This alternative would meet the project objectives but would not meet the objective to maximum retail opportunities along Katella Avenue to the same extent as the proposed project (see Table 7-6, *Ability of Each Alternative to Meet the Project Objectives*).

## 7. Alternatives to the Proposed Project

**Table 7-5 Summary of Impacts of Alternatives Compared to the Proposed Project**

| Resource                      | Proposed Project Impacts | Alternatives: Impacts Relative to the Proposed Project |                                     |                                            |
|-------------------------------|--------------------------|--------------------------------------------------------|-------------------------------------|--------------------------------------------|
|                               |                          | No Project/ Current General Plan Alternative           | Arrowhead Products Site Alternative | Increased Residential Land Use Alternative |
| Aesthetics                    | TLS                      | (=)                                                    | (=)                                 | (=)                                        |
| Air Quality                   | S/U                      | (-)                                                    | (-)                                 | (-)                                        |
| Cultural Resources            | TLS/M                    | (=)                                                    | (=)                                 | (=)                                        |
| Greenhouse Gas Emissions      | S/U                      | (-)                                                    | (-)                                 | (-)                                        |
| Hazards & Hazardous Materials | TLS                      | (=)                                                    | (=)                                 | (=)                                        |
| Land Use and Planning         | TLS                      | (=)                                                    | (=)                                 | (=)                                        |
| Noise                         | S/U                      | (=)                                                    | (-)                                 | (=)                                        |
| Population and Housing        | TLS                      | (-)                                                    | (-)                                 | (-)                                        |
| Public Services               | TLS                      | (+)                                                    | (=)                                 | (+)                                        |
| Recreation                    | TLS                      | (+)                                                    | (=)                                 | (+)                                        |
| Transportation and Traffic    | S/U                      | (-)                                                    | (-)                                 | (-)                                        |
| Utilities and Service Systems | TLS                      | (=)                                                    | (=)                                 | (=)                                        |

**Notes:**

LTS: Less Than Significant; LTS/M: Less Than Significant with Mitigation; S/U: Significant and Unavoidable

**Symbols:**

Impacts of alternative compared to those of proposed General Plan Update

(-) The alternative would result in less of an impact than the proposed project.

(=) The alternative would result in less of an impact than the proposed project and would eliminate a significant impact.

(+) The alternative would result in greater impacts than the proposed project.

(++) The alternative would result in greater impacts than the proposed project and result in a new significant impact

(=) The alternative would result in the same/similar impacts as the proposed project.

## 7. Alternatives to the Proposed Project

**Table 7-6 Ability of Each Alternative to Meet the Project Objectives**

| Resource                                                                       | Proposed Project Impacts | Alternatives                                 |                                     |                                            |
|--------------------------------------------------------------------------------|--------------------------|----------------------------------------------|-------------------------------------|--------------------------------------------|
|                                                                                |                          | No Project/ Current General Plan Alternative | Arrowhead Products Site Alternative | Increased Residential Land Use Alternative |
| Maintain high levels of safety and service                                     | Yes                      | Yes                                          | Yes                                 | Yes                                        |
| Create an attractive and pedestrian-friendly downtown                          | Yes                      | No                                           | Yes                                 | Yes                                        |
| Introduce pedestrian bridges                                                   | Yes                      | No                                           | Yes                                 | Yes                                        |
| Maximize retail opportunities along Katella Avenue                             | Yes                      | No                                           | Yes, but not to the same extent     | Yes, but not to the same extent            |
| Relocate City Hall                                                             | Yes                      | No                                           | Yes                                 | Yes                                        |
| Offer incentives to preserve and attract business                              | Yes                      | Yes, but not to the same extent              | Yes                                 | Yes                                        |
| Improve the look and identity of the City                                      | Yes                      | Yes, but not to the same extent              | Yes                                 | Yes                                        |
| Provide consistent and effective code enforcement                              | Yes                      | Yes                                          | Yes                                 | Yes                                        |
| Maintain a good relationship with the Los Alamitos Unified School District     | Yes                      | Yes                                          | Yes                                 | Yes                                        |
| Create more open space, parks, trails, community gardens, and recreation areas | Yes                      | Yes, but not to the same extent              | Yes                                 | Yes                                        |
| Evaluate annexation carefully                                                  | Yes                      | Yes                                          | Yes                                 | Yes                                        |
| Establish centralized parking options                                          | Yes                      | No                                           | Yes                                 | Yes                                        |
| Enhance cultural uses and historical preservation                              | Yes                      | Yes, but not to the same extent              | Yes                                 | Yes                                        |

## 8. Impacts Found Not to Be Significant

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California Public Resources Code Section 21003 (f) states: "...it is the policy of the state that...[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." The Guidelines allow use of an Initial Study to document project effects that are less than significant (Guidelines Section 15063[a]). Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and were therefore not discussed in detail in the Draft EIR.

### 8.1 ASSESSMENT IN THE INITIAL STUDY

The Initial Study prepared for the proposed project in December 2013 determined that impacts listed below would be less than significant. Consequently, they have not been further analyzed in this Draft EIR (DEIR). Please refer to Appendix A for explanation of the basis of these conclusions. Impact categories and questions below are summarized directly from the CEQA Environmental Checklist, as contained in the Initial Study.

## 8. Impacts Found Not to Be Significant

**Table 8-1 Impacts Found Not to Be Significant**

| Environmental Issues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Initial Study Determination  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>I. AESTHETICS. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |
| a) Have a substantial adverse effect on a scenic vista?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Less Than Significant Impact |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | No Impact                    |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Less Than Significant Impact |
| <b>II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</b> |                              |
| 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?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Less Than Significant Impact |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No Impact                    |
| 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))?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | No Impact                    |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No Impact                    |
| 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?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | No Impact                    |
| <b>IV. BIOLOGICAL RESOURCES. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
| 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?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Less Than Significant Impact |
| 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 U.S. Fish and Wildlife Service?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Less Than Significant Impact |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Less Than Significant Impact |
| 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?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | No Impact                    |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | No Impact                    |
| 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?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No Impact                    |
| <b>V. CULTURAL RESOURCES. Would the project:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Less Than Significant Impact |

## 8. Impacts Found No to be Significant

Table 8-1 Impacts Found Not to Be Significant

| Environmental Issues                                                                                                                                                                                                                                                                                                                                                                          | Initial Study Determination  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>VI. GEOLOGY AND SOILS. Would the project:</b>                                                                                                                                                                                                                                                                                                                                              |                              |
| a) Expose people or structures to 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.                                                                                                       | No Impact                    |
| ii) Strong seismic ground shaking?                                                                                                                                                                                                                                                                                                                                                            | Less Than Significant Impact |
| iii) Seismic-related ground failure, including liquefaction?                                                                                                                                                                                                                                                                                                                                  | Less Than Significant Impact |
| iv) Landslides?                                                                                                                                                                                                                                                                                                                                                                               | Less Than Significant Impact |
| b) Result in substantial soil erosion or the loss of topsoil?                                                                                                                                                                                                                                                                                                                                 | Less Than Significant Impact |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?                                                                                                                                                            | Less Than Significant Impact |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?                                                                                                                                                                                                                                              | Less Than Significant Impact |
| 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?                                                                                                                                                                                                          | No Impact                    |
| <b>VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>                                                                                                                                                                                                                                                                                                                              |                              |
| e) For a project 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 result in a safety hazard for people residing or working in the project area?                                                                                                                              | No Impact                    |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?                                                                                                                                                                                                                                                                     | Less Than Significant Impact |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?                                                                                                                                                                          | No Impact                    |
| <b>IX. HYDROLOGY AND WATER QUALITY. Would the project:</b>                                                                                                                                                                                                                                                                                                                                    |                              |
| a) Violate any water quality standards or waste discharge requirements?                                                                                                                                                                                                                                                                                                                       | Less Than Significant Impact |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | Less Than Significant Impact |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site                                                                                                                                                           | Less Than Significant Impact |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?                                                                                                                     | Less Than Significant Impact |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?                                                                                                                                                                                                        | Less Than Significant Impact |
| f) Otherwise substantially degrade water quality?                                                                                                                                                                                                                                                                                                                                             | Less Than Significant Impact |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?                                                                                                                                                                                                                          | Less Than Significant Impact |

## 8. Impacts Found Not to Be Significant

**Table 8-1 Impacts Found Not to Be Significant**

| Environmental Issues                                                                                                                                                                                                                                                                                    | Initial Study Determination  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?                                                                                                                                                                                                     | Less Than Significant Impact |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?                                                                                                                                      | Less Than Significant Impact |
| j) Inundation by seiche, tsunami, or mudflow?                                                                                                                                                                                                                                                           | Less Than Significant Impact |
| k) Potentially impact stormwater runoff from construction activities?                                                                                                                                                                                                                                   | Less Than Significant Impact |
| l) Potentially impact stormwater runoff from post-construction activities?                                                                                                                                                                                                                              | Less Than Significant Impact |
| m) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas? | Less Than Significant Impact |
| n) Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?                                                                                                                                                                                           | Less Than Significant Impact |
| o) Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?                                                                                                                                                                        | Less Than Significant Impact |
| p) Create significant increases in erosion of the project site or surrounding areas?                                                                                                                                                                                                                    | Less Than Significant Impact |
| <b>X. LAND USE AND PLANNING. Would the project:</b>                                                                                                                                                                                                                                                     |                              |
| a) Physically divide an established community?                                                                                                                                                                                                                                                          | No Impact                    |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?                                                                                                                                                                                                       | No Impact                    |
| <b>XI. MINERAL RESOURCES. Would the project:</b>                                                                                                                                                                                                                                                        |                              |
| a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?                                                                                                                                                                   | No Impact                    |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?                                                                                                                                   | No Impact                    |
| <b>XII. NOISE. Would the project result in:</b>                                                                                                                                                                                                                                                         |                              |
| e) For a project 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 expose people residing or working in the project area to excessive noise levels?                                     | No Impact                    |
| <b>XIII. POPULATION AND HOUSING. Would the project:</b>                                                                                                                                                                                                                                                 |                              |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?                                                                                                                                                                                   | Less Than Significant Impact |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?                                                                                                                                                                                             | Less Than Significant Impact |
| <b>XVI. TRANSPORTATION/TRAFFIC. Would the project:</b>                                                                                                                                                                                                                                                  |                              |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?                                                                                                                                         | No Impact                    |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?                                                                                                                                                  | Less Than Significant Impact |
| e) Result in inadequate emergency access?                                                                                                                                                                                                                                                               | Less Than Significant Impact |
| <b>XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:</b>                                                                                                                                                                                                                                          |                              |
| a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?                                                                                                                                                                                                    | Less Than Significant Impact |

## 9. Significant Irreversible Changes Due to the Proposed Project

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Section 15126.2(c) of the CEQA Guidelines requires that an Environmental Impact Report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. In the case of the proposed project, implementation would involve:

- Future development will involve construction activities that entail the commitment of nonrenewable and/or slowly renewable energy resources, including gasoline, diesel fuel, and electricity; human resources; and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water.
- An increased commitment of social services and public maintenance services (e.g., police, fire, and sewer and water services) would also be required. The energy and social service commitments would be long-term obligations in view of the low likelihood of returning the land to its original condition once it has been redeveloped.
- Population growth related to project implementation would increase vehicle trips over the long term. Emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for ozone (O<sub>3</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Los Angeles County only) under the California and National ambient air quality standards (AAQS) and nonattainment for coarse inhalable particulate matter (PM<sub>10</sub>) and nitrogen dioxide (NO<sub>2</sub>) under the California AAQS.<sup>1, 2</sup>
- Future development of the proposed project is a long-term irreversible commitment to develop vacant parcels and redevelop existing developed land in the City of Los Alamitos.

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<sup>1</sup> CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM<sub>10</sub> standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

<sup>2</sup> CARB has proposed to redesignate the SoCAB as attainment for lead and NO<sub>2</sub> under the California AAQS (CARB 2013b).



## 9. Significant Irreversible Changes Due to the Proposed Project

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## 10. Growth-Inducing Impacts of the Proposed Project

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Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine 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. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

**Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?**

Approval and implementation of the General Plan Update would not remove obstacles to growth. The City and its sphere of influence (SOI), which is the community of Rossmoor, are very nearly built out—there are only three acres of vacant land in the City. The City and SOI are already served by infrastructure, and General Plan Update implementation would not extend infrastructure into currently unserved areas. The General Plan Update would permit substantial intensification of land uses on only a handful of parcels.

## 10. Growth-Inducing Impacts of the Proposed Project

### **Would this project result in the need to expand one or more public services to maintain desired levels of service?**

General Plan Update implementation would not require substantial expansions of public services. Some minor expansions may be needed, including an expansion of the Los Alamitos Police Department facility if the City of Rossmore is incorporated. However, construction of such a facility is included in the overall non-residential build out projections of the proposed project; and, as described in Section 5.9, *Public Services*, this could be financed through the General Fund by an increase in revenue.

### **Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?**

Implementation of the General Plan Update would not encourage or facilitate economic effects that could result in other activities that could significantly affect the environment. Buildout of the General Plan Update would increase employment in the City and SOI by 3,770 employees. Impacts of the increases in employment-generating land uses and employment pursuant to the General Plan Update are analyzed throughout Chapter 5 of this Draft EIR.

### **Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?**

Approval of the proposed General Plan Update would not set a precedent that could encourage and facilitate other activities that could significantly affect the environment. Cities and counties in California periodically update their general plans pursuant to California Government Code Sections 65300 et seq.

# 11. Organizations and Persons Consulted

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## CITY OF LOS ALAMITOS

### *Police Department*

Todd Mattern, Police Chief

## COUNTY OF ORANGE

### *Orange County Fire Authority*

Michele Hernandez, Management Analyst

### *Orange County Public Library*

Stephanie Brown, Regional Services Manager (North Region)

Andrea Cowell, Financial Budget Analyst

### *Orange County Sanitation District*

Richard Leon, Planning Division Engineer

### *Orange County Sheriff's Department*

Robert Gunzel, Lieutenant

Anthony Patella, Deputy

## GOLDEN STATE WATER COMPANY

Stan Yarbrough, Operations Engineer

Bob McVicker, Planning Manager

## LOS ALAMITOS JOINT FORCES TRAINING BASE

Tom Tandoc, Base Environmental Officer, State of California, Military Department

## LOS ALAMITOS UNIFIED SCHOOL DISTRICT

John Eclevia, Director of Facilities, Maintenance, Operations, and Transportation

## 11. Organizations and Persons Consulted

### REPUBLIC SERVICES

James Castro, General Manager

Sam Hall, Municipal Relationship Manager

### ROSSMOOR/LOS ALAMITOS AREA SEWER DISTRICT

Harvey Gobas, Consulting Engineer

### SOUTHERN CALIFORNIA EDISON

Jenelle Godges, Region Manager, Local Public Affairs

### SOUTHERN CALIFORNIA GAS COMPANY

Cynthia Fox, Business Analyst, EE Customer Programs

Paulo Morais, Energy Programs Supervisor, Customer Programs

Peter Serrano, Tech Services

## 12. Qualifications of Persons Preparing EIR

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### CITY OF LOS ALAMITOS

**Steven Mendoza**

Community Development / Public Works  
Director

**Tom Oliver**

Planning Aide

### PLACEWORKS

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## 12. Qualifications of Persons Preparing EIR

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